

# SAFETY DATA SHEET

ADVANTAGE ® FS SAE 5W20 SN/SN PLUS/GF-5



## Section 1 - Identification

### 1.1 Product Identifiers

**Product Name** : ADVANTAGE ® FS SAE 5W20 SN/SN PLUS/GF-5  
**Product Code(s)** : 744-000, 744-055, 744-330, 744-275, 744-006, 744-001

### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
United States/Canada +1(800) 424-9300

### 1.4 Supplier Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114

**Fax** : 215-214-2118

**Email** : sds@advancedlubes.com  
technical@advancedlubes.com  
sales@advancedlubes.com

## Section 2 - Hazards Identification

### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.  
**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.  
**Storage** : **P405** Store Locked Up.  
**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

### 2.3 Other Hazards

**Hazards not otherwise classified (HNOC)** : Avoid prolonged or repeated contact with motor oil. Use of good hygiene practices will reduce the likelihood of potential health effects. When exposed wash areas with soap and water and launder contaminated clothing.

## Section 3 - Composition / Information on Ingredients

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	43.0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC	64742-55-8	30.0
CALCIUM LONG-CHAIN ALKARYL SULFONATE	Proprietary	2.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 25.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-55-8	Distillates, petroleum, hydrotreated light	5mg/m3	NLM_CI
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 203C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.85
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 48 cst
Viscosity @ 100C	: 8 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	Inhalation	3900mg/m3	4h Rat	NLM_CIP

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-54-7  
64742-55-8

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

64742-55-8

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

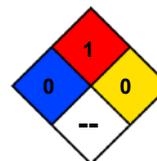
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

**HALL CHEM MFG. INC.**1270 Nobel  
Boucherville Qc,J4B 5H1

Tel. : 450 645 0296

Fax : 450 645 0444

**MATERIAL SAFETY DATA SHEET****EMERGENCY : CANUTEC (613) 996-6666****MSDS : 152-2****PRODUCT IDENTIFICATION AND USE**

NAME OF PRODUCT : Rad universal 50/50

USE OF PRODUCT : antifreeze

**TRANSPORTATION OF DANGEROUS GOODS**

SHIPPING NAME :

WHMIS CLASSIFICATION: D2A, D2B

P.N.I. :

PRIMARY CLASS : No regulated

PACKING GROUP :

SUBSIDIARY CLASS :

**COMPONENTS**

COMPOSITION	% V/W	CASE #	LD <sub>50</sub> mg/kg Oral/rat	LC <sub>50</sub>	TLV ppm 8h
Ethylene glycol	45 to 47,5	107-21-1	4700		100 000 mg/m <sup>3</sup>
Diethylene glycol	0 to 2,5	111-46-6	12565		
Rust inhibitors					

**PHYSICAL CHARACTERISTICS**

<b>PHYSICAL STATE :</b> Liquid	<b>APPEARANCE :</b> Green	<b>ODOR :</b> Typical	<b>ODORTRESHOLD :</b> Not available
<b>VAPOR TENSION ( 20°C ) :</b> Not available	<b>VAPOR DENSITY (air=1) :</b> 1	<b>EVAPORATING RATE (butyl acetate = 1) :</b> 0,01	
<b>BOILING RANGE :</b> 107°C	<b>FREEZING POINT :</b> -37°C	<b>pH :</b> 9,0 to 10,5	
<b>DENSITY (20°C) :</b> 1,065	<b>DISTRIBUTION FACTOR WATER/OIL :</b> Not available	<b>SOLUBILITY IN WATER (25°C) :</b> 100%	

**REACTIVITY DATA****CHEMICAL STABILITY :** Stable

**HALL CHEM MFG. INC.**1270 Nobel  
Boucherville Qc,J4B 5H1

Tel. : 450 645 0296

Fax : 450 645 0444

**MATERIAL SAFETY DATA SHEET****EMERGENCY : CANUTEC (613) 996-6666****INCOMPATIBILITY WITH OTHER PRODUCTS :** Avoid strong bases, strong acids at high temperatures, strong oxidizing agents and material reactive with hydroxyl compounds.**REACTIVITY CONDITIONS :** No hazardous polymerization**EXPLOSION AND FIRE RISKS****FLAMMABILITY :** 1**EXTINGUISHING METHODS :** Apply alcohol type or all purpose type foams by manufacturers recommended techniques for large fires. Use water spray, carbon dioxide or dry chemical media for small fires.**FLASH POINT :** >110°C**AUTO-IGNITION TEMPS. :** Not available**FLAMMABILITY (% per volume)****SUPERIOR LIMIT :** 15,3**LOWER LIMIT :** 3,2**HAZARDOUS COMBUSTION PRODUCT :** Burning may produce carbon monoxide, carbon dioxide and water. Burning may also produce others organic compounds that can not be identified.**EXPLOSIBILITY DATA :****TOXICOLOGICAL PROPERTIES**

ABSORPTION WAYS			CONTACT						
SKIN	√	INHALATION	√	INGESTION	√	WITH SKIN	√	EYES	√

**EFFECTS OF EXPOSURE TO PRODUCT :** Product can irritate mucus glands. High doses can provoke headaches, drowsiness, nausea, dizziness and fainting. Inhalation may aggravate cases of emphysema and bronchitis. Repeated contact with skin provokes irritations, dryness of the skin and cracking of the skin.**PREVENTIVE MEASURES****PROTECTIVE EQUIPMENT :** Gloves, security glasses and protective apron.**GLOVES :****RESPIRATORY SYSTEM :****OCULAR INSTRUMENT :****CLOTHING :****TECHNICAL CONTROL :** Ventilation.**PROCEDURE IN CASE OF LEAKS/SPILLS :** Contain with an inert absorbent. Put the waste in a closed container until future disposal. Do not throw in the sewers or garbage.**HANDLING :** Handle and open the containers with precaution. Do not weld or cut the containers because they can contain residues from flammable vapors. Do not heat or pressurize containers. Do not put any non-combustible material in empty containers, violent chemical reactions can occur. Do not smoke, eat or drink on working areas. Respect a good personal hygiene after manipulation of the product. Keep containers electrically grounded specially during manipulation or while transferring. The material can accumulate static.**WASTE DISPOSAL :** Do not dispose in sewers nor in regular trashes.

## HALL CHEM MFG. INC.

1270 Nobel  
Boucherville Qc,J4B 5H1

Tel. : 450 645 0296

Fax : 450 645 0444

# MATERIAL SAFETY DATA SHEET

EMERGENCY : CANUTEC (613) 996-6666

**STORAGE :** In a cool, dry and well ventilated area. Keep away from incompatible material and from sources of ignition (naked flames, sparks, electricity). Keep the containers grounded especially during pumping and transfer operations.

## FIRST AID

**SKIN :** Immediately flush skin with water while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Contaminated leather items such as shoes should be disposed of properly. Safety shower should be located in immediate work area.

**EYES :** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

**INHALATION :** Move person to fresh air; if effects occur, consult a physician.

**INGESTION :** Do not induce vomiting. Seek medical attention immediately. If person is fully conscious give 1 cup or 8 ounces (240 ml) of water. If medical advice is delayed and if an adult has swallowed several ounces of chemical, then give 3-4 ounces (1/3-1/2 Cup) (90-120 ml) of hard liquor such as 80 proof whiskey. For children, give proportionally less liquor at a dose of 0.3 ounce (1 1/2 tsp.) (8 ml) liquor for each 10 pounds of body weight, or 2 ml per kg body weight [e.g., 1.2 ounce (2 1/3 tbsp.) for a 40 pound child or 36 ml for an 18 kg child].

**NOTES TO PHYSICIAN :** If several ounces (60 - 100 ml) of ethylene glycol have been ingested, early administration of ethanol may counter the toxic effects (metabolic acidosis, renal damage). Consider hemodialysis or peritoneal dialysis & thiamine 100 mg plus pyridoxine 50 mg intravenously every 6 hours. If ethanol is used, a therapeutically effective blood concentration in the range of 100 - 150mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of treatment. 4-Methyl pyrazole (Antizol®) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol (Brent, J. et al., New England Journal of Medicine, Feb. 8, 2001, 344:6, p. 424-9): loading dose 15 mg/kg intravenously, follow by bolus dose of 10 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. Maintain adequate ventilation and oxygenation of the patient. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.



**HALL CHEM MFG. INC.**

1270 Nobel  
Boucherville Qc,J4B 5H1

Tel. : 450 645 0296

Fax : 450 645 0444

## **MATERIAL SAFETY DATA SHEET**

**EMERGENCY : CANUTEC (613) 996-6666**

---

<b>INFORMATION ON THE M.S.D.S. PREPARATION</b>
--

**PREPARED BY :**  
**Hall Chem Mfg. Inc.**

**TELEPHONE : 450 645 0296**

**REVISED - Jan, 2015**

**NOTE :**

The information in this detailed M.S.D.S. is available on request, for the customer service. It must not be used for any other purpose and its reproduction and/or publication is forbidden without the consent of HALL CHEM MFG. INC. Even though this information is based on reliable sources, HALL CHEM MFG. INC. cannot guarantee its accuracy and formally excludes all explicit guarantee relative to the exactitude of this information or of the results following its application.



# MATERIAL SAFETY DATA SHEET

**DIESEL EXHAUST FLUID**

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Brenntag Canada Inc.  
43 Jutland Rd.  
Toronto, ON  
M8Z 2G6  
(416) 259-8231

WHMIS#: 00070093  
Index: HCl9233/16A  
Effective Date: 2014 November 10  
Date of Revision: 2016 March 30

Website: <http://www.brenntag.ca>

**EMERGENCY TELEPHONE NUMBER (For Emergencies Involving Chemical Spills or Releases)**

**1 855 273 6824**

**PRODUCT IDENTIFICATION**

Product Name: Diesel Exhaust Fluid.  
Chemical Name: Not available.  
Synonyms: Diesel Exhaust Fluid, DEF, DEF 32.5%, AC DELCO DEF.  
Chemical Family: Not available.  
Molecular Formula: Not available.  
Product Use: Not available.

WHMIS Classification / Symbol:  
D-2B: Toxic (skin and eye irritant)



READ THE ENTIRE MSDS FOR THE COMPLETE HAZARD EVALUATION OF THIS PRODUCT.

## 2. COMPOSITION, INFORMATION ON INGREDIENTS (Not Intended As Specifications)

<i>Ingredient</i>	<i>CAS#</i>	<i>ACGIH TLV (TWA)</i>	<i>% Concentration</i>
Urea	57-13-8	—	30 - 60

## 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Can decompose at high temperatures forming toxic gases. Contents may develop pressure on prolonged exposure to heat. See "Other Health Effects" Section.

**POTENTIAL HEALTH EFFECTS**

**Inhalation:** Prolonged or repeated overexposure to mists may cause mild respiratory irritation. Excessive contact with mist or spray may cause irritation of mucous membranes, coughing and difficulty in breathing. See "Other Health Effects" Section.

**Skin Contact:** Skin contact can cause irritation, especially under the finger nails (and other confined spaces such as under rings or watch bands). May cause defatting, drying and cracking of the skin. Prolonged and repeated contact may lead to dermatitis.

**Skin Absorption:** Not likely to be absorbed through the skin.

**Eye Contact:** Causes eye irritation. Burns can occur if not promptly removed.

**Ingestion:** This product causes irritation, a burning sensation of the mouth and throat and abdominal pain.

**Other Health Effects:** Effects (irritancy) on the skin and eyes may be delayed, and damage may occur without the sensation or onset of pain. Strict adherence to first aid measures following any exposure is essential.

Solutions are corrosive to most metals. Urea forms corrosive solutions when dissolved in water. High blood concentration of urea increases the risk of glaucoma. May induce osmotic diuresis. Osmotic diuresis is a condition caused by a high concentration of osmotically active substances in the renal tubules (Urea, Sodium Sulphate), which limit the reabsorption of water. (8) May cause central nervous system (CNS) depression. CNS depression is characterized by headache, dizziness, drowsiness, nausea, vomiting and incoordination. Severe overexposures may lead to coma and possible death due to respiratory failure.

See Section 11, "Other Studies Relevant to Material".

#### 4. FIRST AID MEASURES

##### FIRST AID PROCEDURES

- Inhalation:** If respiratory problems arise, move the victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical advice IMMEDIATELY.
- Skin Contact:** Flush skin with running water for a minimum of 20 minutes. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY.
- Eye Contact:** Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. Take care not to rinse contaminated water into the unaffected eye or onto the face. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY.
- Ingestion:** Do not attempt to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give 1/2 to 1 glass of water to dilute material. DO NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. Obtain medical attention IMMEDIATELY.
- Note to Physicians:** This product contains materials that may cause severe pneumonitis if aspirated. If ingestion has occurred less than 2 hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed.
- Medical conditions that may be aggravated by exposure to this product include diseases of the skin, eyes or respiratory tract.

#### 5. FIRE-FIGHTING MEASURES

Flashpoint (°C)	Autoignition Temperature (°C)	Flammability Limits in Air (%):	
		LEL	UEL
Non-combustible (does not burn).	Not applicable.	Not applicable.	Not applicable.
Flammability Class (WHMIS):	Not regulated.		
Hazardous Combustion Products:	Thermal decomposition products are toxic and may include Ammonia, cyanuric acid, bluret, cyanic acid, oxides of carbon, nitrogen and irritating gases.		
Unusual Fire or Explosion Hazards:	Closed containers exposed to heat may burst. Spilled material may cause floors and contact surfaces to become slippery.		
	Urea: Hypochlorites may react with primary amines to form nitrogen trichloride which explodes spontaneously in air.		
Sensitivity to Mechanical Impact:	Not expected to be sensitive to mechanical impact.		
Rate of Burning:	Not available.		
Explosive Power:	Not available.		
Sensitivity to Static Discharge:	Not expected to be sensitive to static discharge.		

##### EXTINGUISHING MEDIA

Fire Extinguishing Media: Use media appropriate for surrounding fire and/or materials.

##### FIRE FIGHTING INSTRUCTIONS

**Instructions to the Fire Fighters:** Isolate materials that are not involved in the fire and protect personnel. Cool containers with flooding quantities of water until well after the fire is out. Spilled material may cause floors and contact surfaces to become slippery.

**Fire Fighting Protective Equipment:** Use self-contained breathing apparatus and protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

Information in this section is for responding to spills, leaks or releases in order to prevent or minimize the adverse effects on persons, property and the environment. There may be specific reporting requirements associated with spills, leaks or releases, which change from region to region.

**Containment and Clean-Up Procedures:** In all cases of leak or spill contact vendor at Emergency Number shown on the front page of this MSDS. Wear protective clothing. Recover spilled material on non-combustible absorbents, such as sand or vermiculite, and place in covered containers for disposal. Collect product for recovery or disposal. For release to land, or storm water runoff, contain discharge by constructing dikes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Ventilate enclosed spaces. Notify applicable government authority if release is reportable or could adversely affect the environment. Spilled material may cause floors and contact surfaces to become slippery.

## 7. HANDLING AND STORAGE

### HANDLING

**Handling Practices:** Use normal "good" industrial hygiene and housekeeping practices. Containers exposed to heat may be under internal pressure. These should be cooled and carefully vented before opening. A face shield and apron should be worn. Vent container frequently, and more often in warm weather, to relieve pressure.

**Ventilation Requirements:** See Section 8, "Engineering Controls".

**Other Precautions:** Use only with adequate ventilation and avoid breathing aerosols ( vapours or mists ). Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use.

### STORAGE

**Storage Temperature (°C):** See below.

**Ventilation Requirements:** General exhaust is acceptable.

**Storage Requirements:** Store in a cool, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Do not expose sealed containers to temperatures above 40° C.

**Special Materials to be Used for Packaging or Containers:** Confirm suitability of any material before using.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Recommendations listed in this section indicate the type of equipment, which will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

### ENGINEERING CONTROLS

**Engineering Controls:** General exhaust is acceptable. Local exhaust ventilation preferred. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense vapours may collect.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Eye Protection:** Safety glasses with side shields are recommended to prevent eye contact. Use full face-shield or chemical safety goggles when there is potential for contact. Contact lenses should not be worn when working with this material.

**Skin Protection:** Gloves and protective clothing made from butyl rubber, natural rubber, nitrile rubber or PVC should be impervious under conditions of use. Do not use gloves or protective clothing made from leather. Prior to use, user should confirm impermeability. Discard contaminated gloves.

**Respiratory Protection:** No specific guidelines available. Respiratory protection should not be necessary unless a mist is created. A NIOSH/MSHA-approved air-purifying respirator equipped with organic vapour cartridges for concentrations up to 1 000 ppm organic vapours. Use an air-supplied respirator if concentrations are high or unknown.

If while wearing a respiratory protection, you can smell, taste or otherwise detect anything unusual, or in the case of a full facepiece respirator you experience eye irritation, leave the area immediately. Check to make sure the respirator to face seal is still good. If it is, replace the filter, cartridge or canister. If the seal is no longer good, you may need a new respirator. (6)

**Other Personal Protective Equipment:** Wear regular work clothing. The use of coveralls is recommended. Locate safety shower and eyewash station close to chemical handling area. Take all precautions to avoid personal contact.

#### EXPOSURE GUIDELINES

None established for this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES (Not intended as Specifications)

<b>Physical State:</b>	Liquid.
<b>Appearance:</b>	Colourless to slightly hazy liquid.
<b>Odour:</b>	Ammonia odour.
<b>Odour Threshold (ppm):</b>	Not available.
<b>Boiling Range (°C):</b>	104 - 106 (3)
<b>Melting/Freezing Point (°C):</b>	Not available.
<b>Vapour Pressure (mm Hg at 20° C):</b>	Not available.
<b>Vapour Density (Air = 1.0):</b>	Not available.
<b>Relative Density (g/cc):</b>	1.08 - 1.14 (3)
<b>Bulk Density:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Evaporation Rate (Butyl Acetate = 1.0):</b>	Not available.
<b>Solubility:</b>	100%
<b>% Volatile by Volume:</b>	Not available.
<b>pH:</b>	9.8 - 10 (3)
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Volatile Organic Compounds (VOC):</b>	Not available.
<b>Flashpoint (°C):</b>	Non-combustible (does not burn).

## 10. STABILITY AND REACTIVITY

### CHEMICAL STABILITY

<b>Under Normal Conditions:</b>	Stable.
<b>Under Fire Conditions:</b>	Not flammable.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions to Avoid:</b>	High temperatures, sparks, open flames and all other sources of ignition. Do not evaporate to dryness.
<b>Materials to Avoid:</b>	Strong oxidizers. Reducing agents. Hypochlorites. Halogens. Alkalies. Acrylonitrile-Butadiene-Styrene. Polyethylene. Iron and its alloys. Copper and its alloys. Aluminum and its alloys. Zinc and its alloys. Mild steel.  Sodium Nitrite. Potassium Nitrite. Chromyl Chloride. Nitrosyl Perchlorate. Gallium Perchlorate. Titanium Tetrachloride. Sodium Hypochlorite, Calcium Hypochlorite or Phosphorus Pentachloride reacts with urea to form nitrogen trichloride which explodes spontaneously in air. (4)
<b>Decomposition or Combustion Products:</b>	Thermal decomposition products are toxic and may include Ammonia, cyanuric acid, bluret, cyanic acid, oxides of carbon, nitrogen and irritating gases.

## 11. TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL DATA:

SUBSTANCE	LD50 (Oral, Rat)	LD50 (Dermal, Rabbit)	LC50 (Inhalation, Rat, 4h)
Urea	8 471 - 14 300 mg/kg (1,3)	---	---
Carcinogenicity Data:	The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP.		
Reproductive Data:	No adverse reproductive effects are anticipated.		
Mutagenicity Data:	No adverse mutagenic effects are anticipated.		
Teratogenicity Data:	No adverse teratogenic effects are anticipated.		
Respiratory / Skin Sensitization Data:	None known.		
Synergistic Materials:	Application of urea to guinea pig skin increased a subsequent sensitization reaction to epoxy resins. (4)		
Other Studies Relevant to Material:	Urea: Application of a saturated urea solution to rabbit eyes caused the loss of corneal epithelium after 5 minutes, with slow regeneration. Application of a 10 % solution to human eyes, several times a day, for one year caused no irritation or discomfort. (4)  Male and female rats were administered a 0.45 %, 0.9 % or 4.5 % (approximately 225, 450 or 2,250 mg/Kg/day) urea in the diet with no adverse effects. (4)  Bacterial reverse mutation assay- Negative ; Chinese Hamster -Chromosomal aberration test - Positive (very high dose); Mouse -positive (very high dose). (3)  No toxic effects on mouse gonads up to 6,750-mg/kg day. No toxic effects on rat gonads up to 2,250-mg/kg day. (3)		

## 12. ECOLOGICAL INFORMATION

Ecotoxicity:	Will slowly release ammonia and degrade to nitrate. Ammonia is toxic to fish. However, ammonia release is slow making urea much less toxic than ammonium salts. Non-persistent and non-cumulative when applied using normal agricultural practices. The product itself and its products of degradation are not harmful under normal conditions of careful and responsible use. Urea will promote algae growth and may degrade the quality and taste of water. (3)  Urea:  96-hour LC50 (Barillius barna) > 9 100 mg/L. (3) 48-hour EC50 (Daphnia magna) 3 910 mg/L. (3)
Environmental Fate:	Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.  Urea: When released to soil, Urea will hydrolyze into ammonium in a matter of days to several weeks. When released into the soil, Urea may leach into groundwater. When released into water, Urea may biodegrade to a moderate extent. When released into water, Urea is not expected to evaporate significantly. This material has an experimentally-determined bioconcentration factor (BCF) of less than 100. Urea is not expected to significantly bioaccumulate. When released into the air, Urea is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, Urea is expected to have a half-life of less than 1 day. (3)

## 13. DISPOSAL CONSIDERATIONS

Deactivating Chemicals:	None required.
Waste Disposal Methods:	This information applies to the material as manufactured. Reevaluation of the product may be required by the user at the time of disposal since the product uses, transformations, mixtures and processes may influence waste classification. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.
Safe Handling of Residues:	See "Waste Disposal Methods".
Disposal of Packaging:	Empty containers retain product residue. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Do not dispose of package until thoroughly washed out.

## 14. TRANSPORTATION INFORMATION

### CANADIAN TDG ACT SHIPPING DESCRIPTION:

This product is not regulated by TDG.

Label(s): Not applicable. Placard: Not applicable.

ERAP Index: —. Exemptions: None known.

This product is transported warm (25 to 35 Degrees Celsius). Storage and shipping requires insulated tanks and tank cars to prevent crystallization of urea.

### US DOT CLASSIFICATION (49CFR 172.101, 172.102):

This product is not regulated by DOT.

Label(s): Not applicable. Placard: Not applicable.

CERCLA-RQ: Not available. Exemptions: None known.

This product is transported warm (25 to 35 Degrees Celsius). Storage and shipping requires insulated tanks and tank cars to prevent crystallization of urea.

## 15. REGULATORY INFORMATION

### CANADA

CEPA - NSNR: All components of this product are included on the DSL.

CEPA - NPRI: Not Included.

Controlled Products Regulations Classification (WHMIS):

D-2B: Toxic (skin and eye irritant)

### USA

Environmental Protection Act: All components of this product are included on the TSCA inventory.

OSHA HCS (29CFR 1910.1200): Not regulated.

NFPA: 2 Health, 0 Fire, 0 Reactivity (3)

HMS: 2 Health, 0 Fire, 0 Reactivity (3)

### INTERNATIONAL

Urea is found on the following inventories: EINECS (European Inventory of Existing Commercial Chemical Substances).

## 16. OTHER INFORMATION

### REFERENCES

1. RTECS-Registry of Toxic Effects of Chemical Substances, Canadian Centre for Occupational Health and Safety RTECS database.
2. Clayton, G.D. and Clayton, F.E., Eds., Patty's Industrial Hygiene and Toxicology, 3rd ed., Vol. IIA,B,C, John Wiley and Sons, New York, 1981.
3. Supplier's Material Safety Data Sheet(s).
4. CHEMINFO chemical profile, Canadian Centre for Occupational Health and Safety, Hamilton, Ontario, Canada.
5. Guide to Occupational Exposure Values, 2011, American Conference of Governmental Industrial Hygienists, Cincinnati, 2011.
6. Regulatory Affairs Group, Brenntag Canada Inc.
7. The British Columbia Drug and Poison Information Centre, Poison Managements Manual, Canadian Pharmaceutical Association, Ottawa, 1981.

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Brenntag Canada Inc. will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein. This Material Safety Data Sheet is valid for three years.

To obtain revised copies of this or other Material Safety Data Sheets, contact your nearest Brenntag Canada Regional office.

British Columbia: 20333-102B Avenue, Langley, BC, V1M 3H1  
Phone: (604) 513-9009 Facsimile: (604) 513-9010

Alberta: 6628 - 45 th. Street, Leduc, AB, T9E 7C9  
Phone: (780) 986-4544 Facsimile: (780) 986-1070

Manitoba: 681 Plinquet Street, Winnipeg, MB, R2J 2X2  
Phone: (204) 233-3416 Facsimile: (204) 233-7005

Ontario: 43 Jutland Road, Toronto, ON, M8Z 2G6  
Phone: (416) 259-8231 Facsimile: (416) 259-5333

Quebec: 2900 Jean Baptiste Des., Lachine, PQ, H8T 1C8  
Phone: (514) 636-9230 Facsimile: (514) 636-0877

Atlantic: A-105 Akerley Boulevard, Dartmouth, NS, B3B 1R7  
Phone: (902) 468-9690 Facsimile: (902) 468-3085

---

Prepared By: Regulatory Affairs Group, Brenntag Canada Inc., (416) 259-8231.



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017

Page 1 of 10

## SAFETY DATA SHEET

### SECTION 1 IDENTIFICATION

#### PRODUCT

**Product Name:** (see Section 16 for Synonyms) **MOBILITH SHC 220**  
**Product Description:** Synthetic Base Stocks and Additives  
**SDS Number:** 11093  
**Product Code:** 2015A0204040  
**Intended Use:** Grease

#### COMPANY IDENTIFICATION

<b>Supplier:</b>	<b>Imperial Oil Downstream</b> P.O. Box 2480, Station M Calgary, ALBERTA T2P 3M9 Canada
<b>24 Hour Environmental / Health Emergency Telephone</b>	1-866-232-9563
<b>Transportation Emergency Phone Number</b>	1-866-232-9563
<b>Product Technical Information</b>	1-800-268-3183
<b>Supplier General Contact</b>	1-800-567-3776

### SECTION 2 HAZARD IDENTIFICATION

This material is considered to be **NON-HAZARDOUS** according to regulatory guidelines.

This product has been classified in accordance with hazard criteria of the Hazardous Products Regulations (HPR) SOR/2015-17 and the SDS contains all the information required by the HPR SOR/2015-17.

#### Other hazard information:

**Health Hazards Not Otherwise Classified:** None as defined under HPR SOR/2015-17.

**Physical Hazards Not Otherwise Classified:** None as defined under HPR SOR/2015-17.

#### PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

#### HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

#### ENVIRONMENTAL HAZARDS



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017  
Page 2 of 10

No significant hazards.

NFPA Hazard ID: Health: 0 Flammability: 1 Reactivity: 0  
HMIS Hazard ID: Health: 0 Flammability: 1 Reactivity: 0

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

<b>SECTION 3</b>	<b>COMPOSITION / INFORMATION ON INGREDIENTS</b>
------------------	---

This material is defined as a mixture.

Substance(s) or Complex Substance(s)

Name	CAS#	Concentration*	GHS Hazard Codes
1H-BENZOTRIAZOLE-1-METHANAMINE, N,N-BIS(2-ETHYLHEXYL)-METHYL-	94270-86-7	0.1 - < 1%	H315, H317, H401, H411
BENZENAMINE, N-PHENYL-, REACTION PRODUCTS WITH 2,4,4-TRIMETHYLPENTENE	68411-46-1	1 - < 5%	H402, H412
LITHIUM HYDROXIDE MONOHYDRATE	1310-66-3	0.1 - < 1%	H302, H314(1B)
LITHIUM SALT OF ALIPHATIC ACID	CONFIDENTIAL	1 - < 5%	H302
METHYLENE BIS(DIBUTYLDITHIOCARBAMATE)	10254-67-6	1 - < 5%	H413
ZINC DIALKYL DITHIOPHOSPHATE	68457-78-4	1 - < 2.5%	H315, H318, H401, H411
ZINC DINONYLNAPHTHALENE SULPHONATE	28016-00-4	0.1 - < 1%	H315, H319(2A), H317

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

<b>SECTION 4</b>	<b>FIRST-AID MEASURES</b>
------------------	---------------------------

**INHALATION**

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

**SKIN CONTACT**

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

**EYE CONTACT**

Flush thoroughly with water. If irritation occurs, get medical assistance.

**INGESTION**

First aid is normally not required. Seek medical attention if discomfort occurs.



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017

Page 3 of 10

## SECTION 5 FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight streams of water

### FIRE FIGHTING

**Fire Fighting Instructions:** Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Hazardous Combustion Products:** Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

### FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >204°C (399°F) [EST. FOR OIL, ASTM D-92 (COC)]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** N/D

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

### PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

### SPILL MANAGEMENT

**Land Spill:** Stop leak if you can do so without risk. Scrape up spilled material with shovels into a suitable container for recycle or disposal.

**Water Spill:** Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Skim from surface

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017  
Page 4 of 10

## ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

## SECTION 7 HANDLING AND STORAGE

### HANDLING

Prevent small spills and leakage to avoid slip hazard.

**Static Accumulator:** This material is not a static accumulator.

### STORAGE

Do not store in open or unlabelled containers. Keep away from incompatible materials.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMIT VALUES

Substance Name	Form	Limit/Standard			Note	Source
LITHIUM HYDROXIDE MONOHYDRATE		Ceiling	1 mg/m <sup>3</sup>			OARS WEEL

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

### ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

### PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:** Any specific glove information provided is based on published literature and glove

manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practise good housekeeping.

#### ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

#### SECTION 9

#### PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

#### GENERAL INFORMATION

**Physical State:** Solid  
**Form:** Semi-fluid  
**Colour:** Red  
**Odour:** Characteristic  
**Odour Threshold:** N/D

#### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** 0.9  
**Flammability (Solid, Gas):** N/A  
**Flash Point [Method]:** >204°C (399°F) [EST. FOR OIL, ASTM D-92 (COC)]  
**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D  
**Autoignition Temperature:** N/D  
**Boiling Point / Range:** > 316°C (600°F) [Estimated]  
**Decomposition Temperature:** N/D  
**Vapour Density (Air = 1):** N/D  
**Vapour Pressure:** < 0.013 kPa (0.1 mm Hg) at 20°C [Estimated]  
**Evaporation Rate (n-butyl acetate = 1):** N/D  
**pH:** N/A  
**Log Pow (n-Octanol/Water Partition Coefficient):** > 3.5 [Estimated]  
**Solubility in Water:** Negligible



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017

Page 6 of 10

Viscosity: 220 cSt (220 mm<sup>2</sup>/sec) at 40°C  
Oxidizing Properties: See Hazards Identification Section.

#### OTHER INFORMATION

Freezing Point: N/D  
Melting Point: N/D

NOTE: Most physical properties above are for the oil component in the material.

<b>SECTION 10</b>	<b>STABILITY AND REACTIVITY</b>
-------------------	---------------------------------

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**MATERIALS TO AVOID:** Strong oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose at ambient temperatures.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization will not occur.

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
-------------------	----------------------------------

#### INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
<b>Inhalation</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
<b>Ingestion</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
<b>Skin</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
<b>Eye</b>	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
<b>Sensitisation</b>	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
Aspiration: Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017

Page 7 of 10

<b>Germ Cell Mutagenicity:</b> No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
<b>Carcinogenicity:</b> No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
<b>Reproductive Toxicity:</b> No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
<b>Lactation:</b> No end point data for material.	Not expected to cause harm to breast-fed children.
<b>Specific Target Organ Toxicity (STOT)</b>	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

#### OTHER INFORMATION

For the product itself:

Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components or similar formulations. An ingredient or ingredients that are classified as a skin sensitizer.

#### Contains:

Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitising in test animals and humans.

CMR Status: None.

#### --REGULATORY LISTS SEARCHED--

1 = IARC 1  
2 = IARC 2A

3 = IARC 2B  
4 = ACGIH ALL

5 = ACGIH A1  
6 = ACGIH A2

### SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

#### ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

#### MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017

Page 8 of 10

---

<b>SECTION 13</b>	<b>DISPOSAL CONSIDERATIONS</b>
-------------------	--------------------------------

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

**DISPOSAL RECOMMENDATIONS**

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

**REGULATORY DISPOSAL INFORMATION**

**Empty Container Warning** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b>
-------------------	------------------------------

**LAND (TDG):** Not Regulated for Land Transport

**LAND (DOT):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**Marine Pollutant:** No

**AIR (IATA):** Not Regulated for Air Transport

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>
-------------------	-------------------------------

**WHMIS Classification:** Not controlled

**CEPA:** Contains one or more components that are on the NDSL and have been notified under CEPA.

**Listed or exempt from listing/notification on the following chemical inventories:** AICS, IECSC, KECI, TCSI, TSCA

**Special Cases:**



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017

Page 9 of 10

Inventory	Status
NDSL	Restrictions Apply
PICCS	Restrictions Apply

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
ZINC DIALKYL DITHIOPHOSPHATE	88457-79-4	6

--REGULATORY LISTS SEARCHED--

1 = TSCA 4

3 = TSCA 5e

5 = TSCA 12b

2 = TSCA 5a2

4 = TSCA 6

6 = NPRI

**SECTION 16**

**OTHER INFORMATION**

N/D = Not determined, N/A = Not applicable

**KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):**

H302: Harmful if swallowed; Acute Tox Oral, Cat 4

H314(1B): Causes severe skin burns and eye damage; Skin Corr/Irritation, Cat 1B

H315: Causes skin irritation; Skin Corr/Irritation, Cat 2

H317: May cause allergic skin reaction; Skin Sensitization, Cat 1

H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1

H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2A

H401: Toxic to aquatic life; Acute Env Tox, Cat 2

H402: Harmful to aquatic life; Acute Env Tox, Cat 3

H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2

H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3

H413: May cause long lasting harmful effects to aquatic life; Chronic Env Tox, Cat 4

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

Updates made in accordance with implementation of GHS requirements.

**SYNONYMS:** MOBILITH SHC 220 ELECTROLUBER

The information and recommendations contained herein are, to the best of Imperial Oil's knowledge and belief, accurate and reliable as of the date issued. Imperial Oil assumes no responsibility for accuracy of information unless the document is the most current available from an official Imperial Oil distribution system. The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container. Appropriate



Product Name: MOBILITH SHC 220  
Revision Date: 01 Mar 2017

Page 10 of 10

---

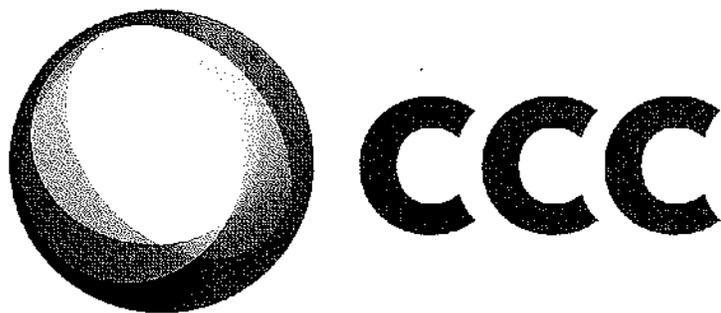
warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted.

---

DGN: 5009082 (553335)

---

Copyright 2002 Imperial Oil Limited, All rights reserved



**Canada Colors and Chemicals Limited**

**152 Kennedy Road South  
Brampton, Ontario  
Canada  
L6W 3G4**

**General Inquiry Number: (905) 459-1232**

**Material Safety Data Sheet  
Attached**



# AMERICAN REFINING GROUP, INC.

## Safety Data Sheet

Prepared according to GHS

### 1. Identification

<b>Product Name</b>	Kensol 30
<b>Product Code</b>	4111
<b>Recommended Use</b>	<i>Mineral Spirits is a widely-used solvent, paint thinner, spot remover, asphalt reducer, hand cleaners, parts cleaners, a million uses and applications.</i>
<b>Company</b>	American Refining Group, Inc. 77 North Kendall Avenue Bradford, PA 16701 www.amref.com msds@amref.com
<b>Emergency Telephone Number(s)</b>	Chemtrec 1-800-424-9300 (24 HRS) ARG: 814-368-1297 (24 HRS)

This product is distributed by  
Canada Colors and Chemicals Limited  
General Inquiry: (905) 459-1232  
24 Hour Emergency: (416) 444-2112



CCC: Product Code: 616700  
CCC: Product Name: MINERAL SPIRITS

### 2. Hazards Identification

<b>GHS Classification</b>	Flammable Liquids Category 3 Aspiration Hazard Category 1 Eye Irritation Category 2B Skin Irritation Category 2 Specific Target Organ Toxicity-Single Exposure (narcotic effects) – Category 3 Static Accumulating Liquid
<b>Signal Word</b>	DANGER!
<b>Hazard Statements</b>	Flammable liquid and vapor May be fatal if swallowed and enters airways. Causes eye irritation Causes skin Irritation May cause respiratory irritation; or May cause drowsiness or dizziness
<b>Other Hazard Information</b>	Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment Sparks may ignite liquid and vapor may cause flash fire. Liquid conductivity is <100 pS/m (picosiemans/meter) at 77°F
<b>GHS Pictogram</b>	
<b>Precautionary Statements</b>	Do not breathe mist or vapors Use only outdoors or in a well-ventilated area

**2. Hazards Identification**

**If inhaled:** Remove person to fresh air and keep comfortable for breathing.  
**Call a poison center/doctor if you feel unwell.**  
**If swallowed:** immediately call a poison center or doctor.  
**Do NOT induce vomiting.**  
**Store Locked up**  
**Store in a well-ventilated place.**  
**Wear protective gloves/clothing/eye protection/face protection**  
**Keep away from heat/sparks/open flames/hot surfaces. -No smoking**  
**Keep container tightly closed**  
**Ground/bond container and receiving equipment. This alone may be insufficient to remove static electricity.**  
**Use explosion-proof electrical/ventilating/lighting equipment.**  
**Use only non-sparking tools**  
**If on skin:** take off immediately all contaminated clothing. Rinse skin with water/shower.  
**Store in a well-ventilated place. Keep cool.**  
**Wash thoroughly after handling.**  
**If in eyes:** rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**If eye irritation persists:** get medical attention/advice.  
**If skin irritation occurs:** Get medical advice/attention.  
**Take off contaminated clothing and wash it before reuse.**  
**Dispose of contents in accordance with local/regional/national/international regulations**

**3. Composition / Information on Ingredients**

CAS No.	Component	Common Name	Percent
8052-41-3	Stoddard solvent	Mineral Spirits	100%

**Hazardous Constituents contained in complex substances**

CAS No.	Component	Common Name	Percent
111-84-2	Nonane	Nonane	1.0-7.0
25551-13-7	Trimethyl Benzene (mixed Isomers)	Hemellitene, Pseudocumene, mesitylene	0.5-4.0

**4. First Aid Measures**

**Eyes**

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

**Skin**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

#### 4. First Aid Measures

<b>Inhalation</b>	Get medical attention immediately.
<b>Ingestion</b>	Move exposed person to fresh air. DO NOT INDUCE VOMITING. If conscious, rinse out mouth with water.
<b>Symptoms(Acute and delayed)</b>	Exposure to high concentrations of vapors may cause irritation to the eyes, nose and throat, nausea, and dizziness.
<b>Note to Physicians</b>	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

#### 5. Fire Fighting Measures

##### **Suitable Extinguishing Media**

Use dry chemical, CO<sub>2</sub>, water spray (FOG) or foam

##### **Unsuitable Extinguishing Media**

Avoid solid water stream as it may scatter and spread fire.

##### **Specific Hazards Arising from Chemical**

Elevated temperatures can lead to the formation of irritating vapors. Decomposing products may include the following materials: Carbon dioxide and Carbon monoxide.

This product is a static accumulating liquid. Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor may cause flash fire. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Restrict flow velocity to avoid build-up of static charge. Refer to NFPA 77, API 2003, and CENELEC CLC/TR 50404 for further guidance.

##### **Protective Equipment and Precautions for Firefighters**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

#### 6. Accidental Release Measures

##### **Personal Precautions**

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

##### **Environmental Precautions**

Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

##### **Methods for Containment**

Stop leak if without risk. Use absorbent pads or earthen dams to contain.

##### **Methods for Cleanup**

A vapor suppressing foam may be used to reduce vapors. Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled container

#### 7. Handling and Storage

##### **Handling Procedures**

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated

**7. Handling and Storage**

clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Use non-sparking tools.

**Shipping and Storing Procedures**

Store in accordance with local regulations. Store in a segregated and approved area. Keep in the original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Do not store in unlabeled containers. Store and use away from heat, sparks, open flame or any other ignition source. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers that retain product residue may be hazardous.

**Incompatibilities:**  
Oxidizing Agents

**8. Exposure Controls / Personal Protection**

**Component Exposure Limits**

**Stoddard Solvent**

<b>ACGIH TLV:</b>	TWA: 100 ppm	TWA: N/A mg/m <sup>3</sup>	STEL: N/A ppm	STEL: N/A mg/m <sup>3</sup>
<b>OSHA PEL:</b>	TWA: 500 ppm	TWA 2900 mg/m <sup>3</sup>	STEL: N/A ppm	STEL: N/A mg/m <sup>3</sup>
<b>NIOSH REL:</b>	TWA: N/A ppm	TWA 350 mg/m <sup>3</sup>	STEL: N/A ppm	STEL: N/A mg/m <sup>3</sup>
<b>NIOSH Ceiling:</b>	1800 mg/m <sup>3</sup> (15 minutes)			

**Nonane**

<b>ACGIH TLV:</b>	TWA: 200 ppm	TWA: N/A mg/m <sup>3</sup>	STEL: N/A ppm	STEL: N/A mg/m <sup>3</sup>
-------------------	--------------	----------------------------	---------------	-----------------------------

**Trimethyl Benzene (all isomers)**

<b>ACGIH TLV:</b>	TWA: 25 ppm	TWA: N/A mg/m <sup>3</sup>	STEL: N/A ppm	STEL: N/A mg/m <sup>3</sup>
-------------------	-------------	----------------------------	---------------	-----------------------------

N/A signifies not available

**Engineering Controls**

This product is a static accumulating liquid. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Material should be handled in enclosed vessels and equipment. Use only in adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Eye/Face Protection**

Chemical goggles and face shield.

**Skin Protection**

Chemical resistant, impervious gloves complying with an approved standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

**Respiratory Protection**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

**General Hygiene**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

**9. Physical and Chemical Properties**

*Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Please see the Product Specification Sheet for further information.*

<b>Appearance</b>	Colorless	<b>Flammability</b>	Flammable Liquid and vapor
<b>Physical State</b>	Liquid	<b>Upper/Lower Flammability Limits</b>	Upper: 7.5% Lower: 1.0%
<b>Odor</b>	Petroleum Solvent	<b>Vapor Pressure (mm Hg at 20°C)</b>	0.62
<b>Odor Threshold</b>	Not Available	<b>Vapor Density</b>	Not Available
<b>pH</b>	Not Available	<b>Relative Density (lbs/gal)</b>	6.43
<b>Melting/Freezing Point (°F)</b>	Not Available	<b>Water Soluble</b>	No
<b>Initial Boiling Point (°F)</b>	310	<b>Partition Coefficient: n-octanol/water</b>	Not Available
<b>Boiling Range (°F)</b>	310-393	<b>Auto-ignition Temperature (°F)</b>	752
<b>Flash Point (°F) Tag Closed Cup ASTM D-56</b>	105	<b>Decomposition Temperature (°F)</b>	Not Available
<b>Evaporation Rate</b>	Not Available	<b>Viscosity (40°C mm<sup>2</sup>/s)</b>	1.8
<b>Volatile Organic Compounds (g/L)</b>	770.3	<b>Aromatic Content (Typical Vol %)</b>	10.5

**10. Chemical Stability & Reactivity Information**

<b>Reactivity</b>	Polymerization will not occur
<b>Chemical Stability</b>	Stable under normal conditions. If heated, product's static accumulation will rise and could cause flash fire.
<b>Hazardous Reactions</b>	None, under normal processing.
<b>Conditions to Avoid</b>	High temperatures, flames, sparks
<b>Incompatibility</b>	Strong acids and oxidizing materials
<b>Hazardous Decomposition Products</b>	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

**11. Toxicological Information**

<b>Acute Exposure Respiratory Irritation</b>	An inhalation hazard may only arise if product is used in aerosol conditions or if heated up. If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract.
<b>Eye Irritation</b>	Causes mild eye irritation that is reversible with proper care.
<b>Skin Irritation</b>	Causes mild skin irritation that is reversible with proper care.
<b>Sensitization</b>	Not expected to cause skin or respiratory sensitization.
<b>Aspiration Hazard</b>	If swallowed can be aspirated into lungs and cause chemical pneumonia, varying degrees of pulmonary injury or death. If swallowed, do NOT induce vomiting.

**Chronic Exposure  
Target Organ Effects**

Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death.  
Prolonged or repeated direct exposure to the skin results in symptoms of irritation and redness, dermatitis or oil acne.

**Carcinogenicity**

No data available to indicate product or any components present at greater than .1% are carcinogenic.

**Mutagenicity**

No data available to indicate product or any components present at greater than .1% are mutagenic or genotoxic.

**Reproductive Toxicity**

No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.

**Teratogenicity**

No data available to indicate product or any components contained at greater than .1% may cause birth defects.

**Analysis – LD50 / LC50**

Inhalation LC50 Rat	>5 mg/L (4Hr mist)
Oral LD50 Rat	>5000 mg/kg
Dermal LD50 Rabbit	>2000 mg/kg

**12. Ecological Information**

**Component Analysis- Ecotoxicity – Aquatic Life**

Duration/Test/Species	Concentration/Conditions
96 hr LL50 <i>Oncorhyncus mykiss</i>	8.2 mg/L
48 hr EL50 <i>Oncorhyncus mykiss</i>	32 mg/L
96 hr EL50 <i>Scenedesmus subspicatus</i>	45 mg/L
Chronic Survival NOELR Aquatic Vertebrates	2.6 mg/L
Chronic Growth NOELR Aquatic Vertebrates	2.6 mg/L
Chronic Survival NOELR <i>Daphnia magna</i>	16 mg/L
Chronic Reproduction EL 50 <i>Daphnia magna</i>	10 mg/L
Chronic reproduction NOELR <i>Daphnia magna</i>	2.6 mg/L

<b>Persistence &amp; Degradability</b>	Inherently biodegradable
<b>Bioaccumulation Potential</b>	Not Available
<b>Soil Mobility</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

**13. Disposal Considerations**

**Disposal Instructions**

The generation of waste should be avoided or minimized wherever possible. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

**14. Transportation Information**

Emergency Response Guide No.	128	<i>North American Emergency Response Guide Book</i>			
	UN Number	Shipping Name (technical name)	Hazard Class	Packing Group	Labels/Placard
U.S. DOT Bulk (over 119 gallons)	1268	Petroleum Distillates, N.O.S. (Naphtha Solvent)	Combustible Liquid	III	
U.S. DOT Non-Bulk		Not Regulated			Exempt from labeling and placarding unless shipped via air or vessel
IATA	1268	Petroleum Distillates, N.O.S. (Naphtha Solvent)	3	III	
IMDG	1268	Petroleum Distillates, N.O.S. (Naphtha Solvent)	3	III	

**15. Regulatory Information**

**SARA Extremely Hazardous Substances (Sections 302 & 304)**

This product does not contain greater than 1% of any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

**SARA Section 313**

This product contains the following components in concentrations greater than 0.1% for carcinogenic substances and/or 1.0% of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of

**15. Regulatory Information**

1986 and 40 CFR Part 372:  
1,2,4 Trimethylbenzene (CASRN: 95-63-6): 2.7%

**SARA Section 311 & 312 Classifications**  
**Acute Hazard** Yes  
**Chronic Hazard** Yes  
**Fire Hazard** Yes  
**Reactivity Hazard** No

**CERCLA** This product contains the following components listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4:

NONE

**California Prop 65** This product is not routinely tested to determine chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components.

**California Air Resource Board (CARB) Bin Number**

15

**Global Chemical Inventories**

Inventory	
US TSCA	Present*
EU	Present
Japan	Not available
Australia	Present
New Zealand	Present
Canada	Present
Switzerland	Not available
Korea	Present
Philippines	Present
China	Present
Taiwan	Not available

\* May be subject to TSCA 12b export notification. Contains Nonane (CASRN: 111-84-2) at 7 %.

**16. Other Information**

**US NFPA Ratings**

Health	Fire	Reactivity
1	2	0

**HMIS Ratings**

Health	Fire	Physical Hazards
1	2	0

**Revision Date** 9 June 2015  
**Revision Reason** New SDS

*The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.*

**Kensol 30**  
4111

**Revision Date: 6/9/2015**  
Revision #:1

**American Refining Group, Inc.**  
Page 9 of 9

**End of SDS**

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Cetus HiPerSYN Oil 100, 150, 220, 320, 460

**Product Use:** Compressor Oil

**Product Number(s):** 259139, 259140, 259141, 259142, 259143, 278028, 278029, 278030, 278031, 278032

**Synonyms:** Cetus HiPerSYN Oil 100, 150, 220, 320, 460, ISO CLEAN Certified

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	40 - 90 %weight

## SECTION 4 FIRST AID MEASURES

### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

### Most important symptoms and effects, both acute and delayed

#### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

### Indication of any immediate medical attention and special treatment needed

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

## SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION****GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Special note: Do not use in breathing air apparatus or medical equipment.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Colorless to yellow

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 288°C (550.4°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Specific Gravity:** 0.85 - 0.86 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)

**Density:** No data available

**Viscosity:** 100 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Evaporation Rate:** No data available

**Decomposition temperature:** No Data Available

**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 224 °C (435 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe

solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

**SECTION 15 REGULATORY INFORMATION**

**EPCRA 311/312 CATEGORIES:**

1. Immediate (Acute) Health Effects:	NO
2. Delayed (Chronic) Health Effects:	NO
3. Fire Hazard:	NO
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).  
One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required. All other components are listed or exempted from listing on EINECS.

One or more components does not comply with the following chemical inventory requirements: DSL (Canada)

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Lubricating oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1 - 16  
**Revision Date:** MARCH 11, 2015

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

## Safety Data Sheet

### Section 1: Identification

<b>Product Identifier/Name</b>	▪ <b>Hocut WS 8045</b>
<b>Product code</b>	▪ 10225
<b>Relevant identified uses of the substance or mixture and uses advised against</b>	
<b>Recommended use</b>	▪ Water dilutable metal-working fluid
<b>Restrictions on use</b>	▪ For intended industrial use only
<b>HMIRA Registration No.</b>	▪ 11497
<b>HMIRA Registration Date</b>	▪ 2017-05-23
<b>Details of the supplier of the safety data sheet</b>	
<b>Manufacturer</b>	▪ Commonwealth Oil Corporation 2080 Ferriss Rd N. P.O. Box 370 Harrow, ON NOR 1G0 Canada <a href="http://www.commonwealthoil.com">www.commonwealthoil.com</a>
<b>Telephone (General)</b>	▪ (800) 265-3689
<b>Emergency telephone number</b>	▪ CANUTEC (613) 996-6666 Collect 24 hr

### Section 2: Hazard Identification

#### Classification of the substance or mixture

In accordance with 29 CFR 1910.1200 OSHA HCS 2012 and the Canadian Hazardous Products Regulations and WHIMIS 2015

- Acute toxicity - Inhalation (Dust and mists) - Category 4
- Skin Corrosive/irritant Category 1B
- Serious Eye Damage Category 1

#### Label elements

**Signal word**

**DANGER**

**Hazard symbol**



**Hazard statements**

- Harmful if inhaled
- Causes severe skin burns and eye damage

**Precautionary statements**

**Prevention**

- Avoid breathing mists
- Wear eye protection.
- Wear protective gloves and clothing.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.

**Response**

- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Seek medical attention if you feel unwell
- IF IN EYES: Rinse cautiously with water for several minutes. Remove



## Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Product boils and foams excessively when heated above 200°F.
- Hazardous Combustion Products**
- Smoke, soot, fumes or vapors, oxides of carbon and nitrogen, various hydrocarbons.
- Special Protective Equipment and Precautions for Firefighters**
- Structural firefighters' protective clothing will only provide limited protection. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA). Water spray may be used to cool containers exposed to fire.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not touch or walk through spilled material.
- Environmental precautions**
- Avoid run off to waterways and sewers.

### Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Recover free liquid for recycle or disposal. Add absorbent to spill area.  
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.

## Section 7: Handling and Storage

### Precautions for safe handling

- Handling**
- Do not mix or store with strong oxidants. Wash hands thoroughly after handling. Empty container contains product residue which may exhibit hazards of product.

### Conditions for safe storage, including any incompatibilities

- Storage**
- Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from open flame and incompatible materials such as strong oxidizers.

### Incompatible Materials

- Contains alkanolamine. Do not mix with or add nitrites as this could form nitrosamines, some of which are animal carcinogens.

### General Industrial Hygiene Considerations

- Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating or drinking. Safety shower and eye wash should be available close to work station.

### Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Avoid release to the environment.

## Section 8: Exposure Controls/Personal Protection

### Exposure Controls

PEL/TLV

Ingredient	OSHA (TWA)	ACGIH (TWA)	Other (TWA)
Alkanolamine #1	3 ppm - 8 mg/m <sup>3</sup>	3 ppm STEL 6 ppm	NIOSH 3 ppm - 8 mg/m <sup>3</sup>

**Engineering****Measures/Controls**

- Use adequate mechanical (general) ventilation or local exhaust as needed to control concentration of airborne contaminants below applicable exposure limit values.

**Personal Protective Equipment****Pictograms****Respiratory**

- Not necessary under conditions of normal use. In case of insufficient ventilation, wear suitable respiratory equipment if exposure limits are exceeded.

**Eye/Face**

- Wear safety goggles.

**Hands**

- Wear protective gloves- neoprene, butyl or nitrile rubber with cuffs.

**Skin/Body**

- Where extensive dermal exposure may be expected, either a chemical suit or chemical apron will be needed.

## Section 9: Physical and Chemical Properties

**Information on physical and chemical properties**

<b>Appearance</b>	Clear green liquid
<b>Odor</b>	Mild
<b>Odor Threshold</b>	Not Determined
<b>pH</b>	10
<b>Melting Point/Freezing Point</b>	~ 0°C/32°F
<b>Boiling Point</b>	~ 100°C/212°F
<b>Flash Point</b>	Non-combustible
<b>Evaporation Rate</b>	Equal to water
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammability Limits</b>	Not Determined
<b>Vapor Pressure</b>	Nil
<b>Vapor Density (Air=1)</b>	>1
<b>Specific Gravity/Relative</b>	1.05
<b>Solubilities</b>	Soluble in water
<b>Octanol/Water Partition coefficient</b>	Not Determined
<b>Auto ignition temperature</b>	Not Determined
<b>Decomposition temperature</b>	Not Determined
<b>Viscosity</b>	Not determined

## Section 10: Stability and Reactivity

**Reactivity**

- No dangerous reaction known under conditions of normal use.

**Chemical stability**

- Stable under normal temperatures and pressures.

**Possibility of hazardous reaction**

- Not Determined

**Conditions to avoid**

- Not Determined

**Incompatible materials**

- Do not mix with strong oxidants.

**Hazardous decomposition products**

- None known under normal use.

## Section 11: Toxicological Information

### Information on the likely routes of exposure; symptoms; and acute, delayed and chronic effects

- Inhalation**
  - Overexposure to mists or vapors may irritate respiratory tract.
- Ingestion**
  - Ingestion of concentrate may cause gastrointestinal irritation.
- Eye**
  - Direct contact with concentrate may cause serious skin or eye damage based on component information.
- Skin corrosion/irritation**
  - Prolonged/repeated exposure to concentrate may cause skin irritation or allergic reaction in some individuals.

### Numerical measures of toxicity

<b>Acute toxicity</b>	Inhalation (mists) - 11% of mixture classified as Category 4
<b>Skin corrosion/irritation</b>	Skin irritant Category 1B - 8% of mixture, Category 2 - 14%
<b>Serious eye damage/irritation</b>	Eye irritant Category 1 - 8% of mixture, Category 2 - 14%
<b>Respiratory or skin sensitization</b>	Not Classified
<b>Germ cell mutagenicity</b>	Not Classified
<b>Carcinogenicity</b>	Not Classified
<b>Reproductive toxicity</b>	Not Classified
<b>STOT-single exposure</b>	Not Classified
<b>STOT-repeated exposure</b>	Not Classified
<b>Aspiration hazard</b>	Not Classified

- Carcinogenicity**
  - Not listed in NTP, OSHA, or IARC monographs.

### Additional Information

- Practical experience has not demonstrated any adverse effects with normal use dilutions of this product.

## Section 12: Ecological Information

- Toxicity**
  - Not determined.
- Persistence and degradability**
  - Not determined.
- Bioaccumulative potential**
  - Not determined.
- Mobility in Soil**
  - Liquid soluble in water.
- Other adverse effects**
  - Not determined.

## Section 13: Disposal Considerations

### Waste treatment methods

- Product waste**
  - Do not discard into any sewers, on the ground, or any body of water.
  - Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
  - This product, as manufactured in its present state, is not considered to be a hazardous waste according to 40CFR 261.4(b)(4). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This product should be recycled if possible, otherwise it should be disposed of in accordance with all applicable federal, state,

and local regulations.

**Contaminated containers  
or packaging**

- Contaminated containers should be offered for professional cleaning before reuse.
- Dispose of spent container in accordance with local, regional, national, and/or international regulations.

## Section 14: Transport Information

<b>UN Number</b>	▪ Not regulated
<b>UN Proper Shipping Name</b>	▪ Not Applicable
<b>Transport Hazard Class(es)</b>	▪ Not Applicable
<b>Packing Group</b>	▪ Not Applicable
<b>Environmental Hazards</b>	▪ Not Determined
<b>Transport in Bulk</b>	▪ Not Regulated
<b>Special Precautions for user</b>	▪ None Specified

## Section 15: Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Global Chemical Inventories**

<b>USA</b>	All components of this material are on the US TSCA Inventory or are exempt.	
<b>Other TSCA Reg.</b>	None.	
<b>Australia</b>	Not determined.	
<b>Canada</b>	All components of this material are on the DSL	<-
<b>China</b>	Not determined.	
<b>EU</b>	Not determined.	
<b>Japan</b>	Not determined.	
<b>Korea</b>	Not determined.	
<b>New Zealand</b>	Not determined.	
<b>Switzerland</b>	Not determined.	

### Other U.S. Federal Regulations

**SARA Ext. Haz. Subst.**

- This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

**SARA Section 313**

- This product does not contain greater than 1.0% (> 0.1%) for carcinogenic substance) of any chemical substances listed under SARA Section 313.

**SARA 311 Classifications**

Acute Hazard	Yes
Chronic Hazard	No
Fire Hazard	No
Reactivity Hazard	No

**CERCLA Hazardous  
Substances**

- None known.

**FDA Approval**

- Not Applicable.

## State Regulations

### Cal. Prop. 65

- This product contains a chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Chemical Name	CAS No	California Prop 65
Diethanolamine	111-42-1	Carcinogen
1,4-Dioxane	123-91-1	Carcinogen
Propylene oxide	75-56-9	Carcinogen
Ethylene oxide	75-21-8	Carcinogen, Developmental

## Section 16: Other Information

### HMIS Ratings

Health	2
Flammability	0
Physical Hazard	0
Personal Protection	B

### NFPA Ratings

Health	2
Flammability	0
Reactivity	0

## Acronyms/Abbreviations

- **NTP**- National Toxicology Program Report on Carcinogens (latest edition)
- **IARC**- International Agency for the Research on Cancer
- **TSCA**- Toxic Substance Control Agency

Revision Date: 10/15/2018

Previous Revision Date: 5/25/2017

---

*As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.*



# SAFETY DATA SHEET

## Floor Absorbent - CN

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Floor Absorbent - CN

SDS Number: 1006500

Manufacturer:	Oil-Dri Corporation of America 410 North Michigan Avenue Chicago, IL 60611 +1-312-321-1515
TRANSPORTATION EMERGENCY INFORMATION:	Chemtrec +1-800-424-9300 (US and Canada) +1-703-527-3887 (International - Call Collect)

Product Use: Absorbent

Restrictions On Use: Spontaneous combustion can occur when this product is used to high concentrations of chemicals having a high heat of absorption such as olefins, hydrochloric acid, etc.

## 2. HAZARDS IDENTIFICATION

**GHS Classification:**

**Health:** Specific Target Organ Toxicity – Single Exposure Category 3

**Environmental:** Not Hazardous

**Physical:** Not Hazardous

**GHS Labeling:**

**Pictogram:**



**Exclamation mark**

**WARNING!**

**H335** May cause respiratory irritation.

**Prevention:** P261 Avoid breathing dust

P271 Use only outdoors or in a well-ventilated area.

**Response:** P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Storage:** Store in a dry area.

**Disposal:** P501 Dispose of contents/container in accordance with all local and national regulations.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No./ EINECS-No	%
Fullers Earth (Attapulgate-type clay)	8031-18-3	10-100%
Proprietary Ingredient	Proprietary	10-100%

**4. FIRST AID MEASURES**

**Inhalation:** Move to fresh air. If irritation or other symptoms occurs, get medical attention.

**Skin contact:** No first aid should be needed.

**Eye contact:** Immediately flush eyes with cool running water, lifting upper and lower lids. If irritation persists or for foreign body in the eye, get medical attention.

**Ingestion:** If used material is ingested, get medical attention due to possibility of chemical contamination. If large amount of unused material is swallowed, get immediate medical attention.

**Most Important symptoms and effects, both acute and delayed:** Eye contact may cause mechanical irritation and possible eye injury. May cause mechanical skin and respiratory irritation.

**Indication of any immediate medical attention and special treatment needed:** No immediate medical attention is required.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Use media that is appropriate for surrounding fire; unused product is not combustible.

**Specific Hazards Arising from the Chemical:** None for unused product.

**Special Protective Equipment and Precautions for Fire-fighters:** Firefighters should always wear self-contained breathing apparatus and full protective clothing for fires involving chemicals or in confined spaces.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment, and Emergency Procedures:** No special equipment is generally required for spill clean-up. For dusty conditions, an approved respiratory may be needed. Refer to Section 8 for additional information.

**Environmental Hazards:** Report releases as required by local and federal regulations.

**Methods and Materials for Containment and Cleaning Up:** Sweep up and collect unused material for re-use or disposal. For dusty conditions, an approved respiratory may be needed. Refer to Section 8 for additional information.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after use. If clothing becomes dusty, launder before re-use. Use only with adequate ventilation. Minimize the generation and accumulation of dust. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping, drop ceilings, ductwork, etc. free from settled dust. Dry powders can build static electricity charges when subjected to friction of transfer and in mixing operations.

**Conditions for Safe Storage, including any Incompatibilities:** Store in a dry area. Keep away from turpentine, hydrofluoric acid, vegetable oil, and other unsaturated organic compounds (such as fish oil), as this may generate heat and/or fire.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure limit(s)

Chemical Name	Exposure limit(s)
Fullers Earth (Attapulgite-type clay)	15 mg/m <sup>3</sup> (total dust) TWA OSHA PEL 5 mg/m <sup>3</sup> (respirable dust) TWA OSHA PEL
Proprietary Ingredient	15 mg/m <sup>3</sup> (total dust) TWA OSHA PEL 5 mg/m <sup>3</sup> (respirable dust) TWA OSHA PEL

**Appropriate Engineering Controls:** General ventilation is adequate for normal use. If handling produces airborne dust, local exhaust ventilation may be needed.

**Individual Protection Measures, such as Personal Protective Equipment:**

**Eye Protection:** Safety glasses or goggles if needed to prevent eye contact.

**Skin Protection:** None required for normal use.

**Respiratory Protection:** None required for normal use. For operations where the dust concentration may be excessive, a dust respirator may be used. Follow OSHA regulations in the selection and use of respiratory protection.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Property	Value
Appearance:	White to tan granules
Odor Threshold:	Not applicable.
Boiling point/range	Not applicable.
Melting point/range	Not available
Relative density	2.3-2.37
Vapor pressure	Not applicable.
Vapor density (air=1)	Not applicable.
Solubility	Partially soluble
pH	Not applicable.
Partition coefficient (n-octanol/water):	Not available
Evaporation Rate (Butyl acetate=1)	Not applicable.
Viscosity:	Not applicable.
Volatile Organic Carbon Compounds (VOC) (g/L)	Not available
Flashpoint:	Not applicable.
Flammable Limits in Air % by Volume:	LEL (Lower): Not applicable. UEL (Upper): Not applicable.
Autoignition temperature:	Not available
Decomposition temperature:	Not available
Flammability (solid, gas):	Not flammable

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not normally reactive.

**Chemical Stability:** Stable

**Possibility of Hazardous Reactions:** Spontaneous combustion can occur when this product is used to high concentrations of chemicals having a high heat of absorption such as olefins, hydrochloric acid, etc.

**Conditions to Avoid:** None.

**Incompatible Materials:** Turpentine, hydrofluoric acid, vegetable oil, fish oil, unsaturated organic compounds.

**Hazardous Decomposition Products:** None.

## 11. TOXICOLOGICAL INFORMATION

**Potential Health Effects:**

**Acute Hazards:**

**Inhalation:** Inhalation of dust may cause irritation to the eyes, nose, throat and respiratory tract.

**Skin contact:** No known hazard.

**Eye contact:** Contact may cause mechanical, abrasive irritation with possible injury.

**Ingestion:** No known hazard.

**Chronic Effects:** Inhalation of excessive concentrations of any dust, including this material, may lead to lung irritation and/or injury.

**Carcinogenicity Listing:** None.

**Acute Toxicity Values:** None.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** No data available for the product. No adverse effects on the environment are expected.

**Persistence and Degradability:** Fuller's Earth is non-degradable.

**Bioaccumulative Potential:** Not bioaccumulative.

**Mobility in Soil:** No data available

**Other Adverse Effects:** None currently known.

### 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental Regulations. Unused material is suitable for disposal in sanitary landfill. Used material may be subject to regulation, depending on the nature of the material absorbed. Check with appropriate regulatory authority for used material containing hazardous waste.

### 14. TRANSPORT INFORMATION

US DOT Shipping Description: Not regulated

IATA Shipping Description (Air): Not regulated

Proper Shipping Name: Not regulated

UN Number: Not applicable.

Packing Group: Not applicable.

Labels Required: None.

### 15. REGULATORY INFORMATION

US Regulations

SARA 311/312 Hazard Categories: Chronic Health

SARA 313 This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under the SARA Section 313 (40 CFR 372): None.

SARA 302 Listed Chemicals: None.

CERCLA: This product is not subject to CERCLA release reporting. Many states have more stringent reporting requirements. Report releases as required by local and state regulations.

California Proposition 65: None.

EPA Toxic Substances Control Act (TSCA): All of the components of this product are listed on the TSCA Inventory or exempted from TSCA.

International Regulations:

EU REACH: Contact Oil Dri for information on REACH status.

Japan MITI: No data available

AICS: No data available



# SAFETY DATA SHEET

## Floor Absorbent - CN

### 16. OTHER INFORMATION

Date Prepared: 5/29/2015

Revision Summary: May 29, 2015 - Conversion to Hazcom 2012 classification and labeling and format.

HMIS Rating: Health 0\* Fire 0 Reactivity 0

0 = Minimal Hazard, 1 = Slight Hazard, 2 = Moderate Hazard, 3 = Serious Hazard, 4 = Severe Hazard

The information contained herein is true and correct to the best of Oil-Dri Corporation of America's knowledge. However, no warranty, expressed or implied, is made. Nothing herein should be interpreted as a recommendation to infringe existing patents or violate any laws or regulations. Final determination of the suitability of the material is the sole responsibility of the user.

# SAFETY DATA SHEET

## 1. Identification

<b>Product name</b>	FM HYDRAULIC OIL 32
<b>Other means of identification</b>	No data available.
<b>Recommended use:</b>	Lubricating fluid
<b>Restrictions on use:</b>	Industrial use only

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name:	Fuchs Lubricants Co.
Address:	17050 Lathrop Avenue Harvey, Illinois 60426
Telephone:	708-333-8900
Fax:	708-333-9180
Contact Person:	EHS Department
E-mail:	sds@fuchsus.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

Not classified as hazardous under GHS

### Label Elements

<b>Hazard Symbol:</b>	No symbol
<b>Signal Word:</b>	No signal word.
<b>Hazard Statement:</b>	Not applicable
<b>Precautionary Statements</b>	Not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients

## Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
White mineral oil	White mineral oil,	Trade Secret	60 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTRE/doctor/ if you feel unwell. Do NOT induce vomiting.
<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTRE/doctor/ if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact:</b>	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

### Most important symptoms/effects, acute and delayed

<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

### Indication of immediate medical attention and special treatment needed

<b>Treatment:</b>	Get medical attention if symptoms occur.
-------------------	--

## 5. Fire-fighting measures

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
------------------------------	---

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

<b>Specific hazards arising from the chemical:</b>	Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.
--	---

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:**

Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:**

Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:**

Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:**

Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
White mineral oil - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
	STEL	10 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
White mineral oil - Mist.	TWA	1 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
White mineral oil	8 HR ACL	5 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	10 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
White mineral oil - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
	STEL	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)

**Appropriate Engineering Controls** No data available.

**Individual protection measures, such as personal protective equipment**

**General information:** Use personal protective equipment as required.

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

**Skin Protection**

**Hand Protection:** No data available.

**Other:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**9. Physical and chemical properties**

**Appearance**

**Physical state:** Liquid

**Form:** No data available.

**Color:** Water-white

**Odor:** Mild

**Odor threshold:** No data available.

**pH:** No data available.

**Melting point/freezing point:** No data available.

**Initial boiling point and boiling range:** No data available.

**Flash Point:** > 100 °C

**Evaporation rate:** No data available.

**Flammability (solid, gas):** No data available.

**Upper/lower limit on flammability or explosive limits**

**Flammability limit - upper (%):** No data available.

**Flammability limit - lower (%):** No data available.

**Explosive limit - upper (%):** No data available.

**Explosive limit - lower (%):** No data available.

**Vapor pressure:** No data available.

**Vapor density:** No data available.

**Density:** No data available.

**Relative density:** 0.8607

**Solubility(ies)**

**Solubility in water:** Insoluble

<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	32 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.
<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	Not classified for acute toxicity based on available data.
----------------------	--

**Dermal**  
**Product:** ATEmix (): 2000 - 5000 mg/kg

**Inhalation**  
**Product:** Not classified for acute toxicity based on available data.

**Repeated dose toxicity**  
**Product:** No data available.

**Skin Corrosion/Irritation**  
**Product:** No data available.

**Serious Eye Damage/Eye Irritation**  
**Product:** No data available.

**Respiratory or Skin Sensitization**  
**Product:** No data available.

**Carcinogenicity**  
**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**ACGIH Carcinogen List:**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**  
**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**  
**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
**Product:** No data available.

**Aspiration Hazard**  
**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

#### Toxicity to Aquatic Plants

**Product:** No data available.

### Persistence and Degradability

#### Biodegradation

**Product:** No data available.

#### BOD/COD Ratio

**Product:** No data available.

### Bioaccumulative potential

#### Bioconcentration Factor (BCF)

**Product:** No data available.

#### Partition Coefficient n-octanol / water (log Kow)

**Product:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

## 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### 14. Transport information

**TDG**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

#### 15. Regulatory information

**Canada Federal Regulations  
List of Toxic Substances (CEPA, Schedule 1)**  
Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**  
Not Regulated

**National Pollutant Release Inventory (NPRI)  
Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**  
CAD SK DCS                      White mineral oil                      Listed.

**Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Parts 1-4)**  
NPRI                      Not Regulated

**Greenhouse Gases**  
Not Regulated

#### 16. Other information, including date of preparation or last revision

**Issue Date:** 07/12/2017

**Revision Date:** 07/12/2017

**Version #:** 1.0  
**Further Information:** No data available.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.



# SAFETY DATA SHEET

## 1. Identification

<b>Product name</b>	FM HYDRAULIC OIL 32
<b>Other means of identification</b>	No data available.
<b>Recommended use:</b>	Lubricating fluid
<b>Restrictions on use:</b>	Industrial use only

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name:	Fuchs Lubricants Co.
Address:	17050 Lathrop Avenue Harvey, Illinois 60426
Telephone:	708-333-8900
Fax:	708-333-9180
Contact Person:	EHS Department
E-mail:	sds@fuchsus.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

Not classified as hazardous under GHS

### Label Elements

<b>Hazard Symbol:</b>	No symbol
<b>Signal Word:</b>	No signal word.
<b>Hazard Statement:</b>	Not applicable
<b>Precautionary Statements</b>	Not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients

## Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
White mineral oil	White mineral oil,	Trade Secret	60 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTRE/doctor/ if you feel unwell. Do NOT induce vomiting.
<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTRE/doctor/ if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact:</b>	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

### Most important symptoms/effects, acute and delayed

<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

### Indication of immediate medical attention and special treatment needed

<b>Treatment:</b>	Get medical attention if symptoms occur.
-------------------	--

## 5. Fire-fighting measures

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
------------------------------	---

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

<b>Specific hazards arising from the chemical:</b>	Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.
--	---

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:**

Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:**

Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:**

Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:**

Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
White mineral oil - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
	STEL	10 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
White mineral oil - Mist.	TWA	1 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
White mineral oil	8 HR ACL	5 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	10 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
White mineral oil - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
	STEL	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)

**Appropriate Engineering Controls** No data available.

**Individual protection measures, such as personal protective equipment**

**General information:** Use personal protective equipment as required.

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

**Skin Protection**

**Hand Protection:** No data available.

**Other:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**9. Physical and chemical properties**

**Appearance**

<b>Physical state:</b>	Liquid
<b>Form:</b>	No data available.
<b>Color:</b>	Water-white
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	> 100 °C
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	0.8607
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble

<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	32 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.
<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	Not classified for acute toxicity based on available data.
----------------------	--

**Dermal**  
**Product:** ATEmix (): 2000 - 5000 mg/kg

**Inhalation**  
**Product:** Not classified for acute toxicity based on available data.

**Repeated dose toxicity**  
**Product:** No data available.

**Skin Corrosion/Irritation**  
**Product:** No data available.

**Serious Eye Damage/Eye Irritation**  
**Product:** No data available.

**Respiratory or Skin Sensitization**  
**Product:** No data available.

**Carcinogenicity**  
**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**ACGIH Carcinogen List:**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**  
**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**  
**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
**Product:** No data available.

**Aspiration Hazard**  
**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

#### Toxicity to Aquatic Plants

**Product:** No data available.

### Persistence and Degradability

#### Biodegradation

**Product:** No data available.

#### BOD/COD Ratio

**Product:** No data available.

### Bioaccumulative potential

#### Bioconcentration Factor (BCF)

**Product:** No data available.

#### Partition Coefficient n-octanol / water (log Kow)

**Product:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

## 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### 14. Transport information

**TDG**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

#### 15. Regulatory information

**Canada Federal Regulations  
List of Toxic Substances (CEPA, Schedule 1)**  
Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**  
Not Regulated

**National Pollutant Release Inventory (NPRI)  
Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**  
CAD SK DCS                      White mineral oil                      Listed.

**Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Parts 1-4)**  
NPRI                      Not Regulated

**Greenhouse Gases**  
Not Regulated

#### 16. Other information, including date of preparation or last revision

**Issue Date:** 07/12/2017

**Revision Date:** 07/12/2017

**Version #:** 1.0  
**Further Information:** No data available.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.



# SAFETY DATA SHEET

## 1. Identification

<b>Product name</b>	FM HYDRAULIC OIL 32
<b>Other means of identification</b>	No data available.
<b>Recommended use:</b>	Lubricating fluid
<b>Restrictions on use:</b>	Industrial use only

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name:	Fuchs Lubricants Co.
Address:	17050 Lathrop Avenue Harvey, Illinois 60426
Telephone:	708-333-8900
Fax:	708-333-9180
Contact Person:	EHS Department
E-mail:	sds@fuchsus.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

Not classified as hazardous under GHS

### Label Elements

<b>Hazard Symbol:</b>	No symbol
<b>Signal Word:</b>	No signal word.
<b>Hazard Statement:</b>	Not applicable
<b>Precautionary Statements</b>	Not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients

## Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
White mineral oil	White mineral oil,	Trade Secret	60 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTRE/doctor/ if you feel unwell. Do NOT induce vomiting.
<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTRE/doctor/ if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact:</b>	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

### Most important symptoms/effects, acute and delayed

<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

### Indication of immediate medical attention and special treatment needed

<b>Treatment:</b>	Get medical attention if symptoms occur.
-------------------	--

## 5. Fire-fighting measures

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
------------------------------	---

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

<b>Specific hazards arising from the chemical:</b>	Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.
--	---

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:**

Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:**

Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:**

Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:**

Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
White mineral oil - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
	STEL	10 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
White mineral oil - Mist.	TWA	1 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
White mineral oil	8 HR ACL	5 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	10 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
White mineral oil - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
	STEL	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)

**Appropriate Engineering Controls**                      No data available.

**Individual protection measures, such as personal protective equipment**

**General information:**                      Use personal protective equipment as required.

**Eye/face protection:**                      Wear safety glasses with side shields (or goggles).

**Skin Protection**

**Hand Protection:**                      No data available.

**Other:**                                      Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:**                      In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Hygiene measures:**                      Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

<b>9. Physical and chemical properties</b>
--

**Appearance**

<b>Physical state:</b>	Liquid
<b>Form:</b>	No data available.
<b>Color:</b>	Water-white
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	> 100 °C
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	0.8607
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble

<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	32 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.
<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	Not classified for acute toxicity based on available data.
----------------------	--

**Dermal**  
**Product:** ATEmix (): 2000 - 5000 mg/kg

**Inhalation**  
**Product:** Not classified for acute toxicity based on available data.

**Repeated dose toxicity**  
**Product:** No data available.

**Skin Corrosion/Irritation**  
**Product:** No data available.

**Serious Eye Damage/Eye Irritation**  
**Product:** No data available.

**Respiratory or Skin Sensitization**  
**Product:** No data available.

**Carcinogenicity**  
**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**ACGIH Carcinogen List:**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**  
**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**  
**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
**Product:** No data available.

**Aspiration Hazard**  
**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

#### Toxicity to Aquatic Plants

**Product:** No data available.

### Persistence and Degradability

#### Biodegradation

**Product:** No data available.

#### BOD/COD Ratio

**Product:** No data available.

### Bioaccumulative potential

#### Bioconcentration Factor (BCF)

**Product:** No data available.

#### Partition Coefficient n-octanol / water (log Kow)

**Product:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

## 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### 14. Transport information

**TDG**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

#### 15. Regulatory information

**Canada Federal Regulations  
List of Toxic Substances (CEPA, Schedule 1)**  
Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**  
Not Regulated

**National Pollutant Release Inventory (NPRI)  
Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**  
CAD SK DCS                      White mineral oil                      Listed.

**Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Parts 1-4)**  
NPRI                      Not Regulated

**Greenhouse Gases**  
Not Regulated

#### 16. Other information, including date of preparation or last revision

**Issue Date:** 07/12/2017

**Revision Date:** 07/12/2017

**Version #:** 1.0  
**Further Information:** No data available.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.





LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## 1. Identification

**Product name** FM LUBE OIL 100  
**Other means of identification** No data available.  
**Recommended use:** Lubricating fluid  
**Restrictions on use:** Industrial use only

### Manufacturer/Importer/Supplier/Distributor Information

#### Manufacturer

**Company Name:** Fuchs Lubricants Co.  
**Address:** 17050 Lathrop Avenue  
Harvey, Illinois 60426  
**Telephone:** 708-333-8900  
**Fax:** 708-333-9180

**Contact Person:** EHS Department  
**E-mail:** sds@fuchs.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

Not classified as hazardous under 29CFR 1910.1200 (HazCom 2012).

### Label Elements

**Hazard Symbol:** No symbol  
**Signal Word:** No signal word.  
**Hazard Statement:** not applicable  
**Precautionary Statement** not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Hazardous Component(s):

Chemical name	CAS-No.	Concentration
Mineral oil	Confidential	60 - 100%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

## 4. First-aid measures

<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTER/doctor/.../if you feel unwell. Do NOT induce vomiting.
<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTER/doctor/.../if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated/saturated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact:</b>	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

### Most important symptoms/effects, acute and delayed

**Symptoms:** No data available.

### Indication of immediate medical attention and special treatment needed

**Treatment:** Get medical attention as appropriate or if symptoms persist.

## 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:** Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:** Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:** Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Exposure Limits

Chemical name	type	Exposure Limit Values	Source
Mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)
Mineral oil - Mist.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

**Protective Measures:** Use personal protective equipment as required.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Eye Protection:** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Discard contaminated footwear that cannot be cleaned. Avoid contact with skin, eyes, and clothing.

## 9. Physical and chemical properties

### Appearance

Physical state:	Liquid
Form:	No data available.
Color:	Light yellow
Odor:	Mild
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	260 °C (500 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.8735
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	100 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

Reactivity:	Not reactive during normal use.
Chemical Stability:	Material is stable under normal conditions.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.
<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	Not classified for acute toxicity based on available data.
<b>Dermal Product:</b>	ATEmix (): 2000 - 5000 mg/kg
<b>Inhalation Product:</b>	Not classified for acute toxicity based on available data.

<b>Repeated dose toxicity Product:</b>	No data available.
--	--------------------

<b>Skin Corrosion/Irritation Product:</b>	No data available.
---	--------------------



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Serious Eye Damage/Eye Irritation

**Product:** No data available.

## Respiratory or Skin Sensitization

**Product:** No data available.

## Carcinogenicity

**Product:** No data available.

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

## Germ Cell Mutagenicity

### In vitro

**Product:** No data available.

### In vivo

**Product:** No data available.

## Reproductive toxicity

**Product:** No data available.

## Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

## Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

## Aspiration Hazard

**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

## 13. Disposal considerations



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

**DOT**

Not regulated.

**IMDG**

Not regulated.

**IATA**

Not regulated.

## 15. Regulatory information

### US Federal Regulations

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

None

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

### US State Regulations

**US. California Proposition 65**

No component is regulated by CA Prop 65.

## 16. Other information, including date of preparation or last revision

**Issue Date:** 16.06.2016

**Revision Date:** 16.06.2016

**Version #:** 1.0



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

---

**Further Information:**

No data available.

**Disclaimer:**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

# SAFETY DATA SHEET

## 1. Identification

**Product name** FM SEAMER OIL 150

**Other means of identification** No data available.

**Recommended use:** Lubricating fluid

**Restrictions on use:** Industrial use only

### Manufacturer/Importer/Supplier/Distributor Information

**Manufacturer**

Company Name: Fuchs Lubricants Co.  
 Address: 17050 Lathrop Avenue  
 Harvey, Illinois 60426

Telephone: 708-333-8900  
 Fax: 708-333-9180

Contact Person: EHS Department  
 E-mail: sds@fuchs.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

**Hazard Classification** Not classified as hazardous under GHS

### Label Elements

**Hazard Symbol:** No symbol

**Signal Word:** No signal word.

**Hazard Statement:** Not applicable

**Precautionary Statements** Not applicable

**Other hazards which do not result in GHS classification:** None.

**3. Composition/information on ingredients**

**Hazardous Component(s):**

Chemical name	CAS-No.	Concentration
White Mineral oil	Confidential	60 - 100%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

**4. First-aid measures**

- Ingestion:** Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.
- Inhalation:** Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.
- Skin Contact:** Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
- Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Get medical attention if symptoms occur.

**5. Fire-fighting measures**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, fog, CO2, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:** Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:** Contains a component that when heated at or above 300F (150C) may generate Formaldehyde vapors. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:** Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
White Mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)
White Mineral oil - Mist.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

**Protective Measures:** Use personal protective equipment as required.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Eye Protection:** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**9. Physical and chemical properties**

<b>Appearance</b>	
Physical state:	liquid
Form:	No data available.
Color:	Water-white
Odor:	Mild
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	270 °C (518 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.8762
<b>Solubility(ies)</b>	
Solubility in water:	Emulsifiable in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	150 mm <sup>2</sup> /s (40 °C)

**10. Stability and reactivity**

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.

<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. formaldehyde

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.
<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral</b>	
<b>Product:</b>	ATEmix (): > 5000 mg/kg
<b>Dermal</b>	
<b>Product:</b>	ATEmix (): 2000 - 5000 mg/kg
<b>Inhalation</b>	
<b>Product:</b>	Not classified for acute toxicity based on available data.

<b>Repeated dose toxicity</b>	
<b>Product:</b>	No data available.

<b>Skin Corrosion/Irritation</b>	
<b>Product:</b>	No data available.

<b>Serious Eye Damage/Eye Irritation</b>	
<b>Product:</b>	No data available.

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information**

**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

**13. Disposal considerations**



**Disposal Instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### 14. Transport information

**DOT**

Not regulated.

**IMDG**

Not regulated.

**IATA**

Not regulated.

#### 15. Regulatory information

**US Federal Regulations**

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

None

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

#### 16. Other information, including date of preparation or last revision

**Issue Date:** 02.08.2019

**Revision Date:** 15.06.2016

**Version #:** 1.1

**Further Information:** No data available.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

# SAFETY DATA SHEET

## 1. Identification

<b>Product name</b>	FM SEAMER OIL 150
<b>Other means of identification</b>	No data available.
<b>Recommended use:</b>	Lubricating fluid
<b>Restrictions on use:</b>	Industrial use only

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name:	Fuchs Lubricants Co.
Address:	17050 Lathrop Avenue Harvey, Illinois 60426
Telephone:	708-333-8900
Fax:	708-333-9180
Contact Person:	EHS Department
E-mail:	sds@fuchsus.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

Not classified as hazardous under GHS

### Label Elements

<b>Hazard Symbol:</b>	No symbol
<b>Signal Word:</b>	No signal word.
<b>Hazard Statement:</b>	Not applicable
<b>Precautionary Statements</b>	Not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients

## Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
White mineral oil	White mineral oil,	Trade Secret	60 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTRE/doctor/ if you feel unwell. Do NOT induce vomiting.
<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTRE/doctor/ if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact:</b>	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

### Most important symptoms/effects, acute and delayed

<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

### Indication of immediate medical attention and special treatment needed

<b>Treatment:</b>	Get medical attention if symptoms occur.
-------------------	--

## 5. Fire-fighting measures

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
------------------------------	---

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

<b>Specific hazards arising from the chemical:</b>	Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.
--	---

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:**

Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:**

Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:**

Contains a component that when heated at or above 300F (150C) may generate Formaldehyde vapors. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:**

Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
White mineral oil - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
	STEL	10 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
White mineral oil - Mist.	TWA	1 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
White mineral oil	8 HR ACL	5 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	10 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
White mineral oil - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
	STEL	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)

**Appropriate Engineering Controls** No data available.

**Individual protection measures, such as personal protective equipment**

**General information:** Use personal protective equipment as required.

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

**Skin Protection**

**Hand Protection:** No data available.

**Other:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**9. Physical and chemical properties**

**Appearance**

**Physical state:** Liquid

**Form:** No data available.

**Color:** Water-white

**Odor:** Mild

**Odor threshold:** No data available.

**pH:** No data available.

**Melting point/freezing point:** No data available.

**Initial boiling point and boiling range:** No data available.

**Flash Point:** 270 °C

**Evaporation rate:** No data available.

**Flammability (solid, gas):** No data available.

**Upper/lower limit on flammability or explosive limits**

**Flammability limit - upper (%):** No data available.

**Flammability limit - lower (%):** No data available.

**Explosive limit - upper (%):** No data available.

**Explosive limit - lower (%):** No data available.

**Vapor pressure:** No data available.

**Vapor density:** No data available.

**Density:** No data available.

**Relative density:** 0.8762

**Solubility(ies)**

<b>Solubility in water:</b>	Emulsifiable in water
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	150 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. formaldehyde

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.
<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

---

## Information on toxicological effects

### Acute toxicity (list all possible routes of exposure)

#### Oral

**Product:** ATEmix (): > 5000 mg/kg

#### Dermal

**Product:** ATEmix (): 2000 - 5000 mg/kg

#### Inhalation

**Product:** Not classified for acute toxicity based on available data.

### Repeated dose toxicity

**Product:** No data available.

### Skin Corrosion/Irritation

**Product:** No data available.

### Serious Eye Damage/Eye Irritation

**Product:** No data available.

### Respiratory or Skin Sensitization

**Product:** No data available.

### Carcinogenicity

**Product:** No data available.

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

### ACGIH Carcinogen List:

No carcinogenic components identified

### Germ Cell Mutagenicity

#### In vitro

**Product:** No data available.

#### In vivo

**Product:** No data available.

### Reproductive toxicity

**Product:** No data available.

### Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

### Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

**Aspiration Hazard  
Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

**Fish  
Product:** No data available.

**Aquatic Invertebrates  
Product:** No data available.

#### Chronic hazards to the aquatic environment:

**Fish  
Product:** No data available.

**Aquatic Invertebrates  
Product:** No data available.

**Toxicity to Aquatic Plants  
Product:** No data available.

### Persistence and Degradability

**Biodegradation  
Product:** No data available.

**BOD/COD Ratio  
Product:** No data available.

### Bioaccumulative potential

**Bioconcentration Factor (BCF)  
Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)  
Product:** No data available.

**Mobility in soil:** No data available.  
**Other adverse effects:** No data available.

## 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### 14. Transport information

**TDG**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

#### 15. Regulatory information

**Canada Federal Regulations**  
**List of Toxic Substances (CEPA, Schedule 1)**  
Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**  
Not Regulated

**National Pollutant Release Inventory (NPRI)**  
**Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**  
CAD SK DCS                      White mineral oil                      Listed.

**Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Parts 1-4)**  
NPRI                                      Not Regulated

**Greenhouse Gases**  
Not Regulated

#### 16. Other information, including date of preparation or last revision

**Issue Date:** 06/16/2017  
**Revision Date:** 06/16/2017  
**Version #:** 1.0  
**Further Information:** No data available.

**Disclaimer:**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

**SAFETY DATA SHEET**

Prepared According to GHS

**SECTION 1: IDENTIFICATION**

**Product name:** FORMLEASE 46

**Product code:** 600046

**Recommended use:** Concrete Form Release Oil

**Company name:** Toronto Lube Service  
**Address:** 3175 14<sup>th</sup> Avenue  
 Markham, Ontario, Canada, L3R 0H1

**email:** [customerservice@torontolube.com](mailto:customerservice@torontolube.com)

**Emergency phone number:** Toronto Lube Service +1 905 479-8444  
 Poison Control Centre: Consult local telephone directory for emergency number(s).

**SECTION 2: HAZARD(S) IDENTIFICATION**

**GHS Classification:** Not a hazardous substance or mixture

**GHS Label Elements:** Not a hazardous substance or mixture

**Potential Health Effects:** Primary routes of entry: eye contact, ingestion, inhalation

**Precautionary statements:**

**Prevention Response** Observe good industrial hygiene practices.  
 If inhaled move to fresh air. In case of skin contact wash skin with soap and water or use recognized skin cleaner.

**Storage Disposal** Store in accordance with local / regional / national regulations.  
 Dispose of contents/container in accordance with local / regional / national / international regulations.

**Hazard(s) not otherwise classified (HNOC):** **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

CHEMICAL NAME		%
Severely Solvent Refined Heavy Paraffinic Petroleum Oil	64741-88-4	0 - 99%
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	0 - 90%
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	0 - 60%
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	0 - 30%
Proprietary Ingredients		< 3%

**SECTION 4: FIRST-AID MEASURES**

<b>Inhalation:</b>	Move to fresh air. Artificial respiration and/or oxygen may be required. Seek medical advice.
<b>Skin Contact:</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Seek medical advice.
<b>Eye Contact:</b>	Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
<b>Ingestion:</b>	Rinse mouth with water. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Seek medical advice.
<b>General information:</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**SECTION 5: FIRE-FIGHTING MEASURES**

<b>Suitable extinguishing media:</b>	In case of fire, use water fog, foam, dry chemicals, or carbon dioxide.
<b>Unsuitable extinguishing media:</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Specific hazards arising from the chemical:</b>	Cool closed containers exposed to fire with water spray.
<b>Hazardous combustion products:</b>	Carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO <sub>x</sub> ), sulphur oxides (SO <sub>x</sub> ), smoke and irritating vapours as products of incomplete combustion.
<b>Further information:</b>	Prevent fire extinguishing water from contaminating surface water or the ground water system.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions, protective equipment and emergency procedures:</b>	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.
<b>Environmental precautions:</b>	Do not allow uncontrolled discharge of product into the environment.
<b>Methods and materials for containment and cleaning up:</b>	Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be use. Ensure adequate ventilation. Contact proper authorities.

**SECTION 7: HANDLING AND STORAGE**

<b>Handling:</b>	For personal protection see Section 8. Smoking, eating and drinking should be prohibited in the application area. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use
------------------	---

**Storage:** Store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Components with workplace control parameters

Components	Source	Value type (Form of exposure)	Permissible Concentration
Oil Mist, Mineral	ACGIH	TWA (Inhalable fraction)	5 mg/m <sup>3</sup>
	OSHA Z1A	TWA (Mist)	5 mg/m <sup>3</sup>

**Engineering measures:** No special ventilation requirements. Good ventilation should be sufficient to control worker exposure to airborne contaminants.

### Personal Protective Equipment

**Respiratory protection:** Use respiratory protection unless adequate local exhaust is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Filter type:** Organic vapour filter

**Hand protection: Material** Neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R).

**Remarks** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Eye protection:** Wear face-shield and protective suit for abnormal processing problems.

**Skin and body protection:** Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**Protective measures:** Wash contaminated clothing before re-use.

**Hygiene measures:** Remove and wash contaminated clothing and gloves, including the inside before re-use. Wash face, hands and any exposed skin thoroughly after handling.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Liquid  
**Colour:** Dark amber  
**Odour:** Mild petroleum  
**Pour point:** No data available  
**Boiling point / Boiling range:** No data available  
**Flash point:** >220 °C (428 °F), ASTM D-92  
**Fire point:** No data available  
**Auto ignition temperature:** No data available  
**Evaporation rate:** > 1 (ethyl ether = 1)  
**Flammability:** Low fire hazard. This material must be heated before ignition will occur  
**Upper / lower explosion limit:** No data available  
**Vapour pressure:** > 0.1 mg Hg @ 20 °C  
**Relative vapour density** > 1 (Air = 1)

<b>Specific Gravity:</b>	0.868
<b>Water solubility:</b>	Insoluble
<b>Viscosity:</b>	46 cSt (40 °C / 104 F)
<b>Explosive properties:</b>	Do not pressurize, cut weld, braze, solder, drill, grind or expose containers to heat or sources of ignition

## SECTION 10: STABILITY AND REACTIVITY

<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur. Stable under normal conditions.
<b>Conditions to avoid:</b>	No data available.
<b>Incompatible materials:</b>	Reactive with oxidizing agents and reducing agents.
<b>Hazardous decomposition products:</b>	May release CO <sub>x</sub> , H <sub>2</sub> S, metal oxides, methacrylate monomers, smoke and irritating vapours when heated to decomposition.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>General information:</b>	Based on data on the components and the toxicology of similar materials
<b>Routes of entry:</b>	Skin, Eyes, Ingestion, and Inhalation.
<b>ACUTE EXPOSURE:</b>	
<b>Eye irritation:</b>	Not expected to cause eye irritation. Based on data from components or similar materials. Vapors may cause irritation.
<b>Skin irritation:</b>	Slightly irritating based on data from components or similar materials. Prolonged or repeated skin contact without proper hygiene may result in skin disorders such as acne.
<b>Respiratory irritation:</b>	Based on data from components and similar materials, Inhalation of vapors or mists may cause irritation.
<b>Dermal toxicity:</b>	Expected to be of low toxicity: LD50 > 5000 mg/kg, Rabbit
<b>Oral toxicity:</b>	Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
<b>Inhalation toxicity:</b>	Based on data from components and similar materials, product is not considered to be an inhalation hazard under normal conditions of use.
<b>Sensitization:</b>	Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components or similar formulations.
<b>CHRONIC EXPOSURE:</b>	
<b>Chronic toxicity:</b>	No data available to indicate product or components present at greater than 1% are chronic health hazards.
<b>Carcinogenicity:</b>	Product contains mineral and/or synthetic oils shown to be noncarcinogenic in laboratory studies with the same or similar materials. Mineral and synthetic oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.
<b>Mutagenicity:</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Reproductive toxicity:</b>	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

**Teratogenicity:** No data available to indicate either product or components present at greater than 0.1% that may cause birth defects.

**Additional information:** No other health hazards known.

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** Ecological Toxicity data has not been determined specifically for this product. The ecological toxicity hazard is based on an evaluation of data for the components or a similar material. This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

**Persistence and degradability:** This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. This product contains components which may be persistent in the environment.

**Mobility in soil:** No data available

**Other adverse effects:** No data available

## SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal instructions:** Collect and reclaim or dispose in sealed containers at a licensed waste disposal site. Dispose of contents/container in accordance with local / regional / national / international regulations.

**Waste from residues / unused products:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

## SECTION 14: TRANSPORT INFORMATION

**International regulations:**

**IATA - DGR:** Not regulated as dangerous goods.

**IMDG-Code:** Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable for products as supplied.

**National regulations:**

**TDG:** Not regulated as dangerous goods.

## SECTION 15: REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**The components of this product are reported in the following inventories:**

**DSL** On the inventory, or in compliance with the inventory.

**TSCA:** All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA exemption.

**IECSC** On the inventory, or in compliance with the inventory.

**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Revision Date:** May 21, 2018  
**Version #:** 1.1

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**SAFETY DATA SHEET**

Prepared According to GHS

**SECTION 1: IDENTIFICATION**

**Product name:** FORMLEASE 46

**Product code:** 600046

**Recommended use:** Concrete Form Release Oil

**Company name:** Toronto Lube Service  
**Address:** 3175 14<sup>th</sup> Avenue  
 Markham, Ontario, Canada, L3R 0H1

**email:** [customerservice@torontolube.com](mailto:customerservice@torontolube.com)

**Emergency phone number:** Toronto Lube Service +1 905 479-8444  
 Poison Control Centre: Consult local telephone directory for emergency number(s).

**SECTION 2: HAZARD(S) IDENTIFICATION**

**GHS Classification:** Not a hazardous substance or mixture

**GHS Label Elements:** Not a hazardous substance or mixture

**Potential Health Effects:** Primary routes of entry: eye contact, ingestion, inhalation

**Precautionary statements:**

**Prevention Response** Observe good industrial hygiene practices.  
 If inhaled move to fresh air. In case of skin contact wash skin with soap and water or use recognized skin cleaner.

**Storage Disposal** Store in accordance with local / regional / national regulations.  
 Dispose of contents/container in accordance with local / regional / national / international regulations.

**Hazard(s) not otherwise classified (HNOC):** **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

CHEMICAL NAME		%
Severely Solvent Refined Heavy Paraffinic Petroleum Oil	64741-88-4	0 - 99%
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	0 - 90%
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	0 - 60%
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	0 - 30%
Proprietary Ingredients		< 3%

**SECTION 4: FIRST-AID MEASURES**

<b>Inhalation:</b>	Move to fresh air. Artificial respiration and/or oxygen may be required. Seek medical advice.
<b>Skin Contact:</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Seek medical advice.
<b>Eye Contact:</b>	Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
<b>Ingestion:</b>	Rinse mouth with water. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Seek medical advice.
<b>General information:</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**SECTION 5: FIRE-FIGHTING MEASURES**

<b>Suitable extinguishing media:</b>	In case of fire, use water fog, foam, dry chemicals, or carbon dioxide.
<b>Unsuitable extinguishing media:</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Specific hazards arising from the chemical:</b>	Cool closed containers exposed to fire with water spray.
<b>Hazardous combustion products:</b>	Carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO <sub>x</sub> ), sulphur oxides (SO <sub>x</sub> ), smoke and irritating vapours as products of incomplete combustion.
<b>Further information:</b>	Prevent fire extinguishing water from contaminating surface water or the ground water system.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions, protective equipment and emergency procedures:</b>	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.
<b>Environmental precautions:</b>	Do not allow uncontrolled discharge of product into the environment.
<b>Methods and materials for containment and cleaning up:</b>	Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be use. Ensure adequate ventilation. Contact proper authorities.

**SECTION 7: HANDLING AND STORAGE**

<b>Handling:</b>	For personal protection see Section 8. Smoking, eating and drinking should be prohibited in the application area. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use
------------------	---

**Storage:** Store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Components with workplace control parameters

Components	Source	Value type (Form of exposure)	Permissible Concentration
Oil Mist, Mineral	ACGIH	TWA (Inhalable fraction)	5 mg/m <sup>3</sup>
	OSHA Z1A	TWA (Mist)	5 mg/m <sup>3</sup>

**Engineering measures:** No special ventilation requirements. Good ventilation should be sufficient to control worker exposure to airborne contaminants.

### Personal Protective Equipment

**Respiratory protection:** Use respiratory protection unless adequate local exhaust is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Filter type:** Organic vapour filter

**Hand protection: Material** Neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R).

**Remarks** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Eye protection:** Wear face-shield and protective suit for abnormal processing problems.

**Skin and body protection:** Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**Protective measures:** Wash contaminated clothing before re-use.

**Hygiene measures:** Remove and wash contaminated clothing and gloves, including the inside before re-use. Wash face, hands and any exposed skin thoroughly after handling.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Liquid  
**Colour:** Dark amber  
**Odour:** Mild petroleum  
**Pour point:** No data available  
**Boiling point / Boiling range:** No data available  
**Flash point:** >220 °C (428 °F), ASTM D-92  
**Fire point:** No data available  
**Auto ignition temperature:** No data available  
**Evaporation rate:** > 1 (ethyl ether = 1)  
**Flammability:** Low fire hazard. This material must be heated before ignition will occur  
**Upper / lower explosion limit:** No data available  
**Vapour pressure:** > 0.1 mg Hg @ 20 °C  
**Relative vapour density** > 1 (Air = 1)

<b>Specific Gravity:</b>	0.868
<b>Water solubility:</b>	Insoluble
<b>Viscosity:</b>	46 cSt (40 °C / 104 F)
<b>Explosive properties:</b>	Do not pressurize, cut weld, braze, solder, drill, grind or expose containers to heat or sources of ignition

## SECTION 10: STABILITY AND REACTIVITY

<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur. Stable under normal conditions.
<b>Conditions to avoid:</b>	No data available.
<b>Incompatible materials:</b>	Reactive with oxidizing agents and reducing agents.
<b>Hazardous decomposition products:</b>	May release CO <sub>x</sub> , H <sub>2</sub> S, metal oxides, methacrylate monomers, smoke and irritating vapours when heated to decomposition.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>General information:</b>	Based on data on the components and the toxicology of similar materials
<b>Routes of entry:</b>	Skin, Eyes, Ingestion, and Inhalation.
<b>ACUTE EXPOSURE:</b>	
<b>Eye irritation:</b>	Not expected to cause eye irritation. Based on data from components or similar materials. Vapors may cause irritation.
<b>Skin irritation:</b>	Slightly irritating based on data from components or similar materials. Prolonged or repeated skin contact without proper hygiene may result in skin disorders such as acne.
<b>Respiratory irritation:</b>	Based on data from components and similar materials, Inhalation of vapors or mists may cause irritation.
<b>Dermal toxicity:</b>	Expected to be of low toxicity: LD50 > 5000 mg/kg, Rabbit
<b>Oral toxicity:</b>	Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
<b>Inhalation toxicity:</b>	Based on data from components and similar materials, product is not considered to be an inhalation hazard under normal conditions of use.
<b>Sensitization:</b>	Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components or similar formulations.
<b>CHRONIC EXPOSURE:</b>	
<b>Chronic toxicity:</b>	No data available to indicate product or components present at greater than 1% are chronic health hazards.
<b>Carcinogenicity:</b>	Product contains mineral and/or synthetic oils shown to be noncarcinogenic in laboratory studies with the same or similar materials. Mineral and synthetic oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.
<b>Mutagenicity:</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Reproductive toxicity:</b>	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

**Teratogenicity:** No data available to indicate either product or components present at greater than 0.1% that may cause birth defects.

**Additional information:** No other health hazards known.

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** Ecological Toxicity data has not been determined specifically for this product. The ecological toxicity hazard is based on an evaluation of data for the components or a similar material. This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

**Persistence and degradability:** This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. This product contains components which may be persistent in the environment.

**Mobility in soil:** No data available

**Other adverse effects:** No data available

## SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal instructions:** Collect and reclaim or dispose in sealed containers at a licensed waste disposal site. Dispose of contents/container in accordance with local / regional / national / international regulations.

**Waste from residues / unused products:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

## SECTION 14: TRANSPORT INFORMATION

**International regulations:**

**IATA - DGR:** Not regulated as dangerous goods.

**IMDG-Code:** Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable for products as supplied.

**National regulations:**

**TDG:** Not regulated as dangerous goods.

## SECTION 15: REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**The components of this product are reported in the following inventories:**

**DSL** On the inventory, or in compliance with the inventory.

**TSCA:** All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA exemption.

**IECSC** On the inventory, or in compliance with the inventory.

**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Revision Date:** May 21, 2018  
**Version #:** 1.1

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## 1. Identification

**Product name** FM HYDRAULIC OIL 32

**Other means of identification** No data available.

**Recommended use:** Lubricating fluid

**Restrictions on use:** Industrial use only

### Manufacturer/Importer/Supplier/Distributor Information

#### Manufacturer

**Company Name:** Fuchs Lubricants Co.  
**Address:** 17050 Lathrop Avenue  
Harvey, Illinois 60426  
**Telephone:** 708-333-8900  
**Fax:** 708-333-9180

**Contact Person:** EHS Department  
**E-mail:** sds@fuchsus.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

Not classified as hazardous under 29CFR 1910.1200 (HazCom 2012).

### Label Elements

**Hazard Symbol:** No symbol

**Signal Word:** No signal word.

**Hazard Statement:** not applicable

**Precautionary Statement** not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Hazardous Component(s):

Chemical name	CAS-No.	Concentration
White mineral oil	Confidential	60 - 100%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

## 4. First-aid measures

- Ingestion:** Rinse mouth thoroughly. Call a POISON CENTER/doctor/.../if you feel unwell. Do NOT induce vomiting.
- Inhalation:** Move to fresh air. Call a POISON CENTER/doctor/.../if you feel unwell.
- Skin Contact:** Remove contaminated/saturated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
- Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

### Most important symptoms/effects, acute and delayed

**Symptoms:** No data available.

### Indication of immediate medical attention and special treatment needed

**Treatment:** Get medical attention as appropriate or if symptoms persist.

## 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Special protective equipment for fire-fighters:**

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:**

Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:**

Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:**

Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:**

Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Exposure Limits

Chemical name	type	Exposure Limit Values	Source
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)
White mineral oil - Mist.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

**Protective Measures:**

Use personal protective equipment as required.

**Respiratory Protection:**

In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Eye Protection:**

Wear safety glasses with side shields (or goggles).

**Skin and Body Protection:**

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Discard contaminated footwear that cannot be cleaned. Avoid contact with skin, eyes, and clothing.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	No data available.
<b>Color:</b>	Water-white
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	> 100 °C (212 °F)
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	0.8607
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	32 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.
<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	Not classified for acute toxicity based on available data.
<b>Dermal Product:</b>	ATEmix (j): 2000 - 5000 mg/kg
<b>Inhalation Product:</b>	Not classified for acute toxicity based on available data.

<b>Repeated dose toxicity Product:</b>	No data available.
--	--------------------

<b>Skin Corrosion/Irritation Product:</b>	No data available.
---	--------------------



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Serious Eye Damage/Eye Irritation

Product: No data available.

## Respiratory or Skin Sensitization

Product: No data available.

## Carcinogenicity

Product: No data available.

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

## Germ Cell Mutagenicity

### In vitro

Product: No data available.

### In vivo

Product: No data available.

## Reproductive toxicity

Product: No data available.

## Specific Target Organ Toxicity - Single Exposure

Product: No data available.

## Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

## Aspiration Hazard

Product: No data available.

Other effects: No data available.

## 12. Ecological information

General information: This product has not been evaluated for ecological toxicity or other environmental effects.

## 13. Disposal considerations



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

**DOT**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

## 15. Regulatory information

### US Federal Regulations

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**  
None present or none present in regulated quantities.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
None

**SARA 313 (TRI Reporting)**  
None present or none present in regulated quantities.

### US State Regulations

**US. California Proposition 65**  
No component is regulated by CA Prop 65.

## 16. Other information, including date of preparation or last revision

**Issue Date:** 24.06.2016

**Revision Date:** 24.06.2016

**Version #:** 1.0



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

---

**Further Information:**

No data available.

**Disclaimer:**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

# SAFETY DATA SHEET

## 1. Identification

<b>Product name</b>	RENOFORM 2100
<b>Other means of identification</b>	No data available.
<b>Recommended use:</b>	Metalworking fluid
<b>Restrictions on use:</b>	Industrial use only

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name: Fuchs Lubricants Canada Ltd.  
 Address: 405 Dobbie Drive P.O. Box 909  
 Cambridge, ON N1R 5X9  
 Telephone: 519-622-2040  
 Fax: 519-622-2220  
 Contact Person: Technical Services Department

**Emergency telephone number:** 519-622-2040 (Bus. hrs) CANUTEC 1-888-226-8832 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Serious Eye Damage/Eye Irritation	Category 2A
Toxic to reproduction	Effects on or via lactation

#### Unknown toxicity - Health

Acute toxicity, oral	17 %
Acute toxicity, dermal	54.56 %
Acute toxicity, inhalation, vapor	98.56 %
Acute toxicity, inhalation, dust or mist	57.82 %

### Label Elements

#### Hazard Symbol:



<b>Signal Word:</b>	Warning
<b>Hazard Statement:</b>	Causes serious eye irritation. May cause harm to breast-fed children.
<b>Precautionary Statements</b>	
<b>Prevention:</b>	Obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact during pregnancy and while nursing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection/face protection.
<b>Response:</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.
<b>Other hazards which do not result in GHS classification:</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Paraffin oils	Paraffin oils,	64742-70-7	40 - 60%
Alkanes, C14-C16, chloro		63449-39-8	30 - 40%
Soybean oil, epoxidized	Soybean oil, epoxidized,	8013-07-8	1 - 5%
Zinc compound		4259-15-8	1 - 5%
Distillates (petroleum), solvent-dewaxed heavy paraffinic		64742-65-0	1 - 5%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTRE/doctor/ if you feel unwell. Do NOT induce vomiting.
<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTRE/doctor/ if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact:</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Get medical attention if symptoms occur.

**5. Fire-fighting measures**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

- Precautions for safe handling:** End-users should follow industry best practices for handling and using this product.
- Guidance may be found using the current version of ASTM Standard E1497-05: Standard Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. Avoid contact with eyes. Wash hands thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact during pregnancy and while nursing. Obtain special instructions before use.
- Conditions for safe storage, including any incompatibilities:** Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Paraffin oils - Mist.	TWA	1 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
	TWA	0.2 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Paraffin oils - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
	STEL	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
Paraffin oils - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Paraffin oils - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)
Distillates (petroleum), solvent-dewaxed heavy paraffinic - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
	STEL	10 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Distillates (petroleum), solvent-dewaxed heavy paraffinic	8 HR ACL	5 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	10 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Distillates (petroleum), solvent-dewaxed heavy paraffinic - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
	STEL	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)

Distillates (petroleum), solvent-dewaxed heavy paraffinic - Mist.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Distillates (petroleum), solvent-dewaxed heavy paraffinic - Inhalable fraction.	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)

**Appropriate Engineering Controls**                      No data available.

**Individual protection measures, such as personal protective equipment**

**General information:**                      Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Eye/face protection:**                      Wear safety glasses with side shields (or goggles).

**Skin Protection**

**Hand Protection:**                      No data available.

**Other:**    Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:**                      In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Hygiene measures:**                      Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

<b>9. Physical and chemical properties</b>
--

**Appearance**

<b>Physical state:</b>	Liquid
<b>Form:</b>	No data available.
<b>Color:</b>	Amber
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	140 °C (Cleveland Open Cup)
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.

**Upper/lower limit on flammability or explosive limits**

Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Density:	No data available.
Relative density:	0.988
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	60 mm <sup>2</sup> /s (40 °C, Measured)

**10. Stability and reactivity**

Reactivity:	Not reactive during normal use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

**11. Toxicological information**

**Information on likely routes of exposure**

Inhalation:	May be harmful if inhaled.
Skin Contact:	Prolonged or repeated skin contact may cause drying, cracking, or irritation.
Eye contact:	Causes serious eye irritation.
Ingestion:	May be harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

**Ingestion:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**  
**Product:** ATEmix (): 2000 - 5000 mg/kg

**Dermal**  
**Product:** ATEmix (): 2000 - 5000 mg/kg

**Inhalation**  
**Product:** Not classified for acute toxicity based on available data.

**Repeated dose toxicity**  
**Product:** No data available.

**Skin Corrosion/Irritation**  
**Product:** No data available.

**Serious Eye Damage/Eye Irritation**  
**Product:** No data available.

**Respiratory or Skin Sensitization**  
**Product:** No data available.

**Carcinogenicity**  
**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**ACGIH Carcinogen List:**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**  
**Product:** May cause harm to breastfed babies.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in soil:** No data available.  
**Other adverse effects:** No data available.

### 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

**TDG**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

### 15. Regulatory information

**Canada Federal Regulations  
List of Toxic Substances (CEPA, Schedule 1)**

**Chemical Identity**  
Zinc compound

**Export Control List (CEPA 1999, Schedule 3)**  
Not Regulated

**National Pollutant Release Inventory (NPRI)  
Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**

NPRI PT5 Not Regulated

**Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Parts 1-4)**

CAD PSL2 Zinc compound Listed.

**Greenhouse Gases**  
Not Regulated

**16. Other information, including date of preparation or last revision**

**Issue Date:** 05/15/2017

**Revision Date:** 02/23/2017

**Version #:** 1.0

**Further Information:** No data available.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## 1. Identification

**Product name** SUPERLA WHITE OIL 7  
**Other means of identification** No data available.  
**Recommended use:** Base oil  
**Restrictions on use:** Industrial use only

### Manufacturer/Importer/Supplier/Distributor Information

#### Manufacturer

**Company Name:** Fuchs Lubricants Co.  
**Address:** 17050 Lathrop Avenue  
Harvey, Illinois 60426  
**Telephone:** 708-333-8900  
**Fax:** 708-333-9180

**Contact Person:** EHS Department  
**E-mail:** sds@fuchsus.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Aspiration Hazard Category 1

### Label Elements

#### Hazard Symbol:



**Signal Word:** Danger

**Hazard Statement:** May be fatal if swallowed and enters airways.

#### Precautionary Statements



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Response:** IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

#### Unknown toxicity - Health

Acute toxicity, oral	0 %
Acute toxicity, dermal	0 %
Acute toxicity, inhalation, vapor	0 %
Acute toxicity, inhalation, dust or mist	0 %

### 3. Composition/information on ingredients

#### Hazardous Component(s):

Chemical name	CAS-No.	Concentration
White mineral oil	Confidential	60 - 100%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

### 4. First-aid measures

**Ingestion:** Call a physician or poison control center immediately. Rinse mouth. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Inhalation:** Move to fresh air. Call a POISON CENTER/doctor/.../if you feel unwell.

**Skin Contact:** Remove contaminated/saturated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

**Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

#### Most important symptoms/effects, acute and delayed

**Symptoms:** No data available.

#### Indication of immediate medical attention and special treatment needed



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Treatment:** Get medical attention as appropriate or if symptoms persist.

## 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:** Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:** Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

Conditions for safe storage,  
including any  
incompatibilities:

Store locked up.

## 8. Exposure controls/personal protection

### Exposure Limits

Chemical name	type	Exposure Limit Values	Source
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)
White mineral oil - Mist.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

**Protective Measures:**

Use personal protective equipment as required.

**Respiratory Protection:**

In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Eye Protection:**

Wear safety glasses with side shields (or goggles).

**Skin and Body Protection:**

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Hygiene measures:**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Discard contaminated footwear that cannot be cleaned. Avoid contact with skin, eyes, and clothing.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	No data available.
<b>Color:</b>	No data available.
<b>Odor:</b>	No data available.
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	154 °C (309 °F)
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.831
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	6.7 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

Reactivity:	Not reactive during normal use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis.
Inhalation:	Harmful if inhaled.
Skin Contact:	Prolonged skin contact may cause redness and irritation.
Eye contact:	Eye contact is possible and should be avoided.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

---

## Symptoms related to the physical, chemical and toxicological characteristics

**Ingestion:** No data available.

**Inhalation:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

## Information on toxicological effects

### Acute toxicity (list all possible routes of exposure)

#### Oral

**Product:** Not classified for acute toxicity based on available data.

#### Dermal

**Product:** ATEmix (): 1000 - 2000 mg/kg

#### Inhalation

**Product:** Not classified for acute toxicity based on available data.

#### Repeated dose toxicity

**Product:** No data available.

#### Skin Corrosion/Irritation

**Product:** No data available.

#### Serious Eye Damage/Eye Irritation

**Product:** No data available.

#### Respiratory or Skin Sensitization

**Product:** No data available.

#### Carcinogenicity

**Product:** No data available.

#### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

#### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Germ Cell Mutagenicity

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**  
**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**  
**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
**Product:** No data available.

**Aspiration Hazard**  
**Product:** May be fatal if swallowed and enters airways.

**Other effects:** No data available.

## 12. Ecological information

**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

## 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

**DOT**  
Not regulated.

**IMDG**  
Not regulated.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## IATA

Not regulated.

## 15. Regulatory information

### US Federal Regulations

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### Hazard categories

Immediate (Acute) Health Hazards

##### SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

### US State Regulations

#### US. California Proposition 65

No component is regulated by CA Prop 65.

## 16. Other information, including date of preparation or last revision

**Issue Date:** 08.08.2016

**Revision Date:** 08.08.2016

**Version #:** 1.1

**Further Information:** No data available.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## 1. Identification

**Product name** SUPERLA WHITE OIL 21

**Other means of identification** No data available.

**Recommended use:** Base oil

**Restrictions on use:** Industrial use only

### Manufacturer/Importer/Supplier/Distributor Information

#### Manufacturer

**Company Name:** Fuchs Lubricants Co.  
**Address:** 17050 Lathrop Avenue  
Harvey, Illinois 60426

**Telephone:** 708-333-8900  
**Fax:** 708-333-9180

**Contact Person:** EHS Department  
**E-mail:** sds@fuchsus.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

### Hazard Classification

Not classified as hazardous under 29CFR 1910.1200 (HazCom 2012).

### Label Elements

**Hazard Symbol:** No symbol

**Signal Word:** No signal word.

**Hazard Statement:** not applicable

**Precautionary Statements** not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Hazardous Component(s):

Chemical name	CAS-No.	Concentration
White mineral oil	Confidential	60 - 100%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

## 4. First-aid measures

<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTER/doctor/.../if you feel unwell. Do NOT induce vomiting.
<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTER/doctor/.../if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated/saturated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact:</b>	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

### Most important symptoms/effects, acute and delayed

**Symptoms:** No data available.

### Indication of immediate medical attention and special treatment needed

**Treatment:** Get medical attention as appropriate or if symptoms persist.

## 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:** Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:** Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:** Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Exposure Limits

Chemical name	type	Exposure Limit Values	Source
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)
White mineral oil - Mist.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

**Protective Measures:** Use personal protective equipment as required.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Eye Protection:** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Discard contaminated footwear that cannot be cleaned. Avoid contact with skin, eyes, and clothing.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	No data available.
<b>Color:</b>	No data available.
<b>Odor:</b>	No data available.
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	207 °C (405 °F)
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	0.861
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	39 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.
<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	Not classified for acute toxicity based on available data.
<b>Dermal Product:</b>	ATEmix (): 1000 - 2000 mg/kg
<b>Inhalation Product:</b>	Not classified for acute toxicity based on available data.

<b>Repeated dose toxicity Product:</b>	No data available.
--	--------------------

<b>Skin Corrosion/Irritation Product:</b>	No data available.
---	--------------------



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

## Serious Eye Damage/Eye Irritation

**Product:** No data available.

## Respiratory or Skin Sensitization

**Product:** No data available.

## Carcinogenicity

**Product:** No data available.

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

## Germ Cell Mutagenicity

### In vitro

**Product:** No data available.

### In vivo

**Product:** No data available.

## Reproductive toxicity

**Product:** No data available.

## Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

## Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

## Aspiration Hazard

**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

## 13. Disposal considerations



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

**DOT**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

## 15. Regulatory information

### US Federal Regulations

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**  
None present or none present in regulated quantities.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
None

**SARA 313 (TRI Reporting)**  
None present or none present in regulated quantities.

### US State Regulations

**US. California Proposition 65**  
No component is regulated by CA Prop 65.

## 16. Other information, including date of preparation or last revision

**Issue Date:** 08.08.2016

**Revision Date:** 08.08.2016

**Version #:** 1.1



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.

# SAFETY DATA SHEET

---

**Further Information:**

No data available.

**Disclaimer:**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### GST Oil 32, 46, 68, 100

**Product Use:** Turbine Oil

**Product Number(s):** 253026, 253027, 253028, 253029, 254606, 254607, 254608, 853026, 853027, 853028, 853029

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an

electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial

values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

- Color:** Colorless to yellow
- Physical State:** Liquid
- Odor:** Petroleum odor
- Odor Threshold:** No data available
- pH:** Not Applicable
- Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)
- Vapor Density (Air = 1):** >1
- Initial Boiling Point:** 315°C (599°F)
- Solubility:** Soluble in hydrocarbons; insoluble in water
- Freezing Point:** Not Applicable
- Melting Point:** No data available
- Specific Gravity:** 0.86 - 0.87 @ 15.6°C (60.1°F)
- Density:** 0.86 kg/l @ 15.6°C (60.1°F) Minimum
- Viscosity:** 28.80 mm<sup>2</sup>/s - 100 mm<sup>2</sup>/s @ 40°C (104°F)
- Coefficient of Therm. Expansion / °F:** No data available
- Evaporation Rate:** No data available
- Decomposition temperature:** No data available
- Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

- Flammability (solid, gas):** No Data Available
  
- Flashpoint:** (Cleveland Open Cup) 190 °C (374 °F) Minimum
- Autoignition:** No data available
- Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

- Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
- Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- Incompatibility With Other Materials:** Not applicable
- Hazardous Decomposition Products:** None known (None expected)
- Hazardous Polymerization:** Hazardous polymerization will not occur.
- Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.  
The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.SM.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR



## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required. All other components are listed or exempted from listing on EINECS.

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

## SECTION 16 OTHER INFORMATION

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** FEBRUARY 09, 2016

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency

SCBA - Self-Contained Breathing Apparatus	
---	--

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.
--

<p>The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use.</p> <p>This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.</p>
---

## Safety Data Sheet

### Section 1: Identification

<b>Product Identifier/Name</b>	▪ <b>Hocut WS 8045</b>
<b>Product code</b>	▪ 10225
<b>Relevant identified uses of the substance or mixture and uses advised against</b>	
<b>Recommended use</b>	▪ Water dilutable metal-working fluid
<b>Restrictions on use</b>	▪ For intended industrial use only
<b>HMIRA Registration No.</b>	▪ 11497
<b>HMIRA Registration Date</b>	▪ 2017-05-23
<b>Details of the supplier of the safety data sheet</b>	
<b>Manufacturer</b>	▪ Commonwealth Oil Corporation 2080 Ferriss Rd N. P.O. Box 370 Harrow, ON NOR 1G0 Canada <a href="http://www.commonwealthoil.com">www.commonwealthoil.com</a>
<b>Telephone (General)</b>	▪ (800) 265-3689
<b>Emergency telephone number</b>	▪ CANUTEC (613) 996-6666 Collect 24 hr

### Section 2: Hazard Identification

#### Classification of the substance or mixture

In accordance with 29 CFR 1910.1200 OSHA HCS 2012 and the Canadian Hazardous Products Regulations and WHIMIS 2015

- Acute toxicity - Inhalation (Dust and mists) - Category 4
- Skin Corrosive/irritant Category 1B
- Serious Eye Damage Category 1

#### Label elements

**Signal word**

**DANGER**

**Hazard symbol**



**Hazard statements**

- Harmful if inhaled
- Causes severe skin burns and eye damage

**Precautionary statements**

**Prevention**

- Avoid breathing mists
- Wear eye protection.
- Wear protective gloves and clothing.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.

**Response**

- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Seek medical attention if you feel unwell
- IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

- IF ON SKIN: Wash with plenty water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention

**Storage**

- Not applicable

**Disposal**

- Dispose of contents/containers in accordance with local/national regulations

**Hazards not otherwise classified**

- Not applicable

**Other hazards**

- None known.

**Section 3: Composition/Information on Ingredients**

**Substances**

- Mixture

**Mixture**

**Hazardous Components**

Chemical Name	%(Wt.)	CAS #
Alkanolamine #1	5 - 10	Proprietary
Triazine	2 - 4	4719-04-4
Amine salt #1	2 - 4	Proprietary
Amine Octanoate Salt	2 - 4	Proprietary
Amine salt of Neodecanoic acid	1 - 4	Proprietary
Amine salt of Dicarboxylic acid	2 - 4	Proprietary

**Section 4: First-Aid Measures**

**Description of first aid measures**

**Inhalation**

- IF INHALED: Move victim to fresh air if adverse effects are observed.

**Skin**

- IF ON SKIN: Wash skin with soap and water. Remove contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

**Eye**

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Ingestion**

- Do NOT induce vomiting. Seek medical attention.

**Most important symptoms and effects**

**Acute**

- Inhalation of concentrate mist may cause respiratory irritation.
- Direct contact with product concentrate may cause skin or eye damage.

**Delayed**

- Prolonged/repeated exposure may cause skin irritation or allergic reaction in susceptible individuals

**Indication of any immediate medical attention and special treatment needed**

**Note to Physician**

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

**Section 5: Fire-Fighting Measures**

**Extinguishing media**

**Suitable Extinguishing Media**

- Regular foam, carbon dioxide, dry chemical.

**Unsuitable Extinguishing Media**

- Avoid the use of streaming water, as this may spread the fire.

## Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Product boils and foams excessively when heated above 200°F.
- Hazardous Combustion Products**
- Smoke, soot, fumes or vapors, oxides of carbon and nitrogen, various hydrocarbons.
- Special Protective Equipment and Precautions for Firefighters**
- Structural firefighters' protective clothing will only provide limited protection. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA). Water spray may be used to cool containers exposed to fire.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not touch or walk through spilled material.
- Environmental precautions**
- Avoid run off to waterways and sewers.

### Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Recover free liquid for recycle or disposal. Add absorbent to spill area.  
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.

## Section 7: Handling and Storage

### Precautions for safe handling

- Handling**
- Do not mix or store with strong oxidants. Wash hands thoroughly after handling. Empty container contains product residue which may exhibit hazards of product.

### Conditions for safe storage, including any incompatibilities

- Storage**
- Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from open flame and incompatible materials such as strong oxidizers.

### Incompatible Materials

- Contains alkanolamine. Do not mix with or add nitrites as this could form nitrosamines, some of which are animal carcinogens.

### General Industrial Hygiene Considerations

- Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating or drinking. Safety shower and eye wash should be available close to work station.

### Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Avoid release to the environment.

## Section 8: Exposure Controls/Personal Protection

### Exposure Controls

PEL/TLV

Ingredient	OSHA (TWA)	ACGIH (TWA)	Other (TWA)
Alkanolamine #1	3 ppm - 8 mg/m <sup>3</sup>	3 ppm STEL 6 ppm	NIOSH 3 ppm - 8 mg/m <sup>3</sup>

**Engineering****Measures/Controls**

- Use adequate mechanical (general) ventilation or local exhaust as needed to control concentration of airborne contaminants below applicable exposure limit values.

**Personal Protective Equipment****Pictograms****Respiratory**

- Not necessary under conditions of normal use. In case of insufficient ventilation, wear suitable respiratory equipment if exposure limits are exceeded.

**Eye/Face**

- Wear safety goggles.

**Hands**

- Wear protective gloves- neoprene, butyl or nitrile rubber with cuffs.

**Skin/Body**

- Where extensive dermal exposure may be expected, either a chemical suit or chemical apron will be needed.

## Section 9: Physical and Chemical Properties

**Information on physical and chemical properties**

<b>Appearance</b>	Clear green liquid
<b>Odor</b>	Mild
<b>Odor Threshold</b>	Not Determined
<b>pH</b>	10
<b>Melting Point/Freezing Point</b>	~ 0°C/32°F
<b>Boiling Point</b>	~ 100°C/212°F
<b>Flash Point</b>	Non-combustible
<b>Evaporation Rate</b>	Equal to water
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammability Limits</b>	Not Determined
<b>Vapor Pressure</b>	Nil
<b>Vapor Density (Air=1)</b>	>1
<b>Specific Gravity/Relative</b>	1.05
<b>Solubilities</b>	Soluble in water
<b>Octanol/Water Partition coefficient</b>	Not Determined
<b>Auto ignition temperature</b>	Not Determined
<b>Decomposition temperature</b>	Not Determined
<b>Viscosity</b>	Not determined

## Section 10: Stability and Reactivity

**Reactivity**

- No dangerous reaction known under conditions of normal use.

**Chemical stability**

- Stable under normal temperatures and pressures.

**Possibility of hazardous reaction**

- Not Determined

**Conditions to avoid**

- Not Determined

**Incompatible materials**

- Do not mix with strong oxidants.

**Hazardous decomposition products**

- None known under normal use.

## Section 11: Toxicological Information

### Information on the likely routes of exposure; symptoms; and acute, delayed and chronic effects

- Inhalation**
  - Overexposure to mists or vapors may irritate respiratory tract.
- Ingestion**
  - Ingestion of concentrate may cause gastrointestinal irritation.
- Eye**
  - Direct contact with concentrate may cause serious skin or eye damage based on component information.
- Skin corrosion/irritation**
  - Prolonged/repeated exposure to concentrate may cause skin irritation or allergic reaction in some individuals.

### Numerical measures of toxicity

Acute toxicity	Inhalation (mists) - 11% of mixture classified as Category 4
Skin corrosion/irritation	Skin irritant Category 1B - 8% of mixture, Category 2 - 14%
Serious eye damage/irritation	Eye irritant Category 1 - 8% of mixture, Category 2 - 14%
Respiratory or skin sensitization	Not Classified
Germ cell mutagenicity	Not Classified
Carcinogenicity	Not Classified
Reproductive toxicity	Not Classified
STOT-single exposure	Not Classified
STOT-repeated exposure	Not Classified
Aspiration hazard	Not Classified

- Carcinogenicity**
  - Not listed in NTP, OSHA, or IARC monographs.

### Additional Information

- Practical experience has not demonstrated any adverse effects with normal use dilutions of this product.

## Section 12: Ecological Information

- Toxicity**
  - Not determined.
- Persistence and degradability**
  - Not determined.
- Bioaccumulative potential**
  - Not determined.
- Mobility in Soil**
  - Liquid soluble in water.
- Other adverse effects**
  - Not determined.

## Section 13: Disposal Considerations

### Waste treatment methods

- Product waste**
  - Do not discard into any sewers, on the ground, or any body of water.
  - Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
  - This product, as manufactured in its present state, is not considered to be a hazardous waste according to 40CFR 261.4(b)(4). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This product should be recycled if possible, otherwise it should be disposed of in accordance with all applicable federal, state,

and local regulations.

**Contaminated containers  
or packaging**

- Contaminated containers should be offered for professional cleaning before reuse.
- Dispose of spent container in accordance with local, regional, national, and/or international regulations.

## Section 14: Transport Information

<b>UN Number</b>	▪ Not regulated
<b>UN Proper Shipping Name</b>	▪ Not Applicable
<b>Transport Hazard Class(es)</b>	▪ Not Applicable
<b>Packing Group</b>	▪ Not Applicable
<b>Environmental Hazards</b>	▪ Not Determined
<b>Transport in Bulk</b>	▪ Not Regulated
<b>Special Precautions for user</b>	▪ None Specified

## Section 15: Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Global Chemical Inventories**

<b>USA</b>	All components of this material are on the US TSCA Inventory or are exempt.	
<b>Other TSCA Reg.</b>	None.	
<b>Australia</b>	Not determined.	
<b>Canada</b>	All components of this material are on the DSL	<-
<b>China</b>	Not determined.	
<b>EU</b>	Not determined.	
<b>Japan</b>	Not determined.	
<b>Korea</b>	Not determined.	
<b>New Zealand</b>	Not determined.	
<b>Switzerland</b>	Not determined.	

### Other U.S. Federal Regulations

**SARA Ext. Haz. Subst.**

- This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

**SARA Section 313**

- This product does not contain greater than 1.0% (> 0.1%) for carcinogenic substance) of any chemical substances listed under SARA Section 313.

**SARA 311 Classifications**

Acute Hazard	Yes
Chronic Hazard	No
Fire Hazard	No
Reactivity Hazard	No

**CERCLA Hazardous  
Substances**

- None known.

**FDA Approval**

- Not Applicable.

## State Regulations

### Cal. Prop. 65

- This product contains a chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Chemical Name	CAS No	California Prop 65
Diethanolamine	111-42-1	Carcinogen
1,4-Dioxane	123-91-1	Carcinogen
Propylene oxide	75-56-9	Carcinogen
Ethylene oxide	75-21-8	Carcinogen, Developmental

## Section 16: Other Information

### HMIS Ratings

Health	2
Flammability	0
Physical Hazard	0
Personal Protection	B

### NFPA Ratings

Health	2
Flammability	0
Reactivity	0

## Acronyms/Abbreviations

- **NTP**- National Toxicology Program Report on Carcinogens (latest edition)
- **IARC**- International Agency for the Research on Cancer
- **TSCA**- Toxic Substance Control Agency

Revision Date: 10/15/2018

Previous Revision Date: 5/25/2017

---

*As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.*

# SAFETY DATA SHEET

## HOCUT™ 795-H

SDS according to the Workplace Hazardous Materials Information System (WHMIS) 2015

### Section 1. Identification

**Product code** : 202374-01  
**Product name** : HOCUT™ 795-H

**Relevant identified uses of the substance or mixture and uses advised against**

**Relevant uses** : Metalworking fluid  
**Uses advised against** : Any other purpose.

**Supplier** : Quaker Houghton Canada, Inc.  
475 Conestogo Road  
Waterloo, ON N2L 4C9  
1-519-884-8455  
ProductStewardship@quakerhoughton.com  
www.quakerhoughton.com  
  
ProductStewardship@quakerhoughton.com  
www.quakerhoughton.com

**Emergency telephone number (with hours of operation)** : CHEMTREC US/Canada:1-800-424-9300 or 1-703-527-3887 (24 hours)

### Section 2. Hazard identification

This product is considered hazardous by the Workplace Hazardous Materials Information System (WHMIS) 2015

**Classification of the substance or mixture** : SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Warning  
**Hazard statements** : Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.

**Precautionary statements**

**Prevention** : Wear eye or face protection. Avoid breathing vapor. Wash thoroughly after handling.

## Section 2. Hazard identification

- Response** : Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	% (w/w)	CAS number
Mineral oil	45 - 70	**
1-aminopropan-2-ol	5 - 10	78-96-6
Amine neutralized carboxylic Acid	1 - 5	-
Amine neutralized carboxylic Acid	1 - 5	-
Amine neutralized dicarboxylic Acid	1 - 5	-
Alcohols, C12-15, ethoxylated	1 - 5	68131-39-5
Amine neutralized carboxylic Acid	1 - 5	-
Amine neutralized carboxylic Acid	0.5 - 1.5	-
1,2-benzisothiazol-3(2H)-one	<0.1	2634-33-5

**\*\* May contain** : 64742-52-5,64742-53-6

The mineral oils in the product contain < 3% DMSO extract (IP 346).

**Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.**

## Section 4. First-aid measures

### Description of necessary first aid measures

- General advice** : Get medical attention. If medical advice is needed, have product container or label at hand. Use personal protective equipment as required. Remove contaminated clothing and wash it before reuse. Wash skin surfaces thoroughly after contact.
- Inhalation** : Move affected person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and wash it before reuse. Get medical attention if symptoms occur.
- Eye contact** : Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Get medical attention if symptoms occur.
- Ingestion** : Ingestion may cause gastrointestinal irritation and diarrhea. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

### Most important symptoms/effects, acute and delayed

- Inhalation** : Not expected under normal use.
- Skin contact** : pain or irritation,redness,skin rash or hives
- Eye contact** : pain or irritation,redness,watering
- Ingestion** : Not expected under normal use.

### Indication of immediate medical attention and special treatment needed, if necessary

## Section 4. First-aid measures

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Use personal protective equipment as required.

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** : In a fire, hazardous decomposition products may be produced. carbon oxides (CO, CO<sub>2</sub>) nitrogen oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protective equipment (see Section 8). Keep unnecessary personnel away. Avoid breathing vapor or mist. Provide adequate ventilation.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". Evacuate area.

**Environmental precautions** : Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Do not allow any potentially contaminated water, including rain water, runoff from fire fighting or spills, to enter any waterway, sewer or drain.

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
- Storage temperature** : Store between the following temperatures: -5 to 50°C (23 to 122°F).

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Mineral oil	<b>CA Alberta Provincial (Canada, 6/2018).</b> 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Form: Mist 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist <b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 5 mg/m <sup>3</sup> 8 hours. Form: mist STEV: 10 mg/m <sup>3</sup> 15 minutes. Form: mist

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Keep equipment clean.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.

## Section 8. Exposure controls/personal protection

- Other skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Thermal hazards** : Not expected under normal use. Not relevant/applicable due to nature of the product.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Hazy
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : 10.2 [Conc. (% w/w): 5%]
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 0.942
- Solubility** : Emulsifies.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >0.206 cm<sup>2</sup>/s (>20.6 cSt)
- VOC content** : 142 g/l                      ASTM E1868-10 (2021)

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific measures identified.
- Incompatible materials** : Strong oxidizing materials. strong acids. strong alkalis

## Section 10. Stability and reactivity

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

**Acute toxicity** : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Route	ATE value
Oral	4816.6 mg/kg
Dermal	10785.65 mg/kg

### Numerical measures of toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1-aminopropan-2-ol	LD50 Dermal	Rabbit	1851 mg/kg	-
	LD50 Oral	Rat	1715 mg/kg	-
	LD50 Oral	Rat	2 g/kg	-
Alcohols, C12-15, ethoxylated 1,2-benzisothiazol-3(2H)-one	LC50 Inhalation Dusts and mists	Rat	0.0501 mg/l	4 hours
	LD50 Dermal	Rat	4115 mg/kg	-
	LD50 Oral	Rat	1020 mg/kg	-

**Irritation/Corrosion** : Causes severe eye irritation. Causes skin irritation.

Product/ingredient name	Result	Species	Score	Exposure	Observation
1-aminopropan-2-ol	Eyes - Severe irritant	Rabbit	-	24 hours 250 ug	-
	Eyes - Severe irritant	Rabbit	-	970 ug	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
1,2-benzisothiazol-3(2H)-one	Skin - Moderate irritant	Rabbit	-	485 mg	-
	Skin - Mild irritant	Human	-	48 hours 5 %	-

**Sensitization** : May cause sensitization by skin contact.

**Mutagenicity** : Based on available data, the classification criteria are not met.

**Carcinogenicity** : Based on available data, the classification criteria are not met.

**Reproductive toxicity** : Based on available data, the classification criteria are not met.

**Specific target organ toxicity (single exposure)** : Based on available data, the classification criteria are not met.

**Specific target organ toxicity (repeated exposure)** : Based on available data, the classification criteria are not met.

**Aspiration hazard** : Based on available data, the classification criteria are not met.

**Other information** : None identified.

### Information on the likely routes of exposure

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : Causes skin irritation. May cause sensitization by skin contact.

**Eye contact** : Causes serious eye irritation.

**Ingestion** : No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

None identified.

### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : Not expected under normal use.

## Section 11. Toxicological information

<b>Skin contact</b>	: pain or irritation,redness,skin rash or hives
<b>Eye contact</b>	: pain or irritation,redness,watering
<b>Ingestion</b>	: Not expected under normal use.

## Section 12. Ecological information

This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects.

### Toxicity

Product/ingredient name	Result	Species	Exposure
1-aminopropan-2-ol	Acute EC50 32.7 mg/l	Algae - Scenedesmus subspicatus	72 hours
Alcohols, C12-15, ethoxylated	Acute EC50 108.82 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 210 mg/l Fresh water	Fish - Carassius auratus	96 hours
	Acute EC50 0.7 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 0.39 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 302 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
1,2-benzisothiazol-3(2H)-one	Chronic NOEC 83 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Acute EC50 0.11 mg/l	Algae - Selenastrum capricornutum	72 hours
	Acute EC50 97 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 10 to 20 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 167 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
1-aminopropan-2-ol	-0.96	0.11	low
Alcohols, C12-15, ethoxylated	2.03 to 6.24	-	high

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Empty containers or liners may retain some product residues. Empty containers retain product residue and can be hazardous. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

## Section 14. Transport information

	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

### Additional information

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

### International regulations

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**United States** : All components are active or exempted.

## Section 15. Regulatory information

**Canada** : All components are listed or exempted.

## Section 16. Other information

<b>Version</b>	: 1.02 Quaker Houghton Product Stewardship
<b>Key to abbreviations</b>	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals HPR = Hazardous Products Regulations IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available SGG = Segregation Group UN = United Nations
<b>Key literature references and sources for data</b>	: <b>Safety data sheets of raw materials, global regulatory body information, scientific literature, and testing data .</b>

🔍 Indicates information that has changed from previously issued version.

### Disclaimer

This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is correct to the best of our knowledge, information and belief at the date of its publication. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. The company referenced in this Safety Data Sheet assumes no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of such company.

# SAFETY DATA SHEET

## HOCUT™ WS 8045

SDS according to the Workplace Hazardous Materials Information System (WHMIS) 2015

### Section 1. Identification

**Product code** : 017373-01  
**Product name** : HOCUT™ WS 8045

**Relevant identified uses of the substance or mixture and uses advised against**

**Relevant uses** : Metalworking fluid  
**Uses advised against** : Any other purpose.

**Supplier** : Quaker Houghton Canada, Inc.  
475 Conestogo Road  
Waterloo, ON N2L 4C9  
1-519-884-8455  
ProductStewardship@quakerhoughton.com  
www.quakerhoughton.com  
  
ProductStewardship@quakerhoughton.com  
www.quakerhoughton.com

**Emergency telephone number (with hours of operation)** : CHEMTREC US/Canada:1-800-424-9300 or 1-703-527-3887 (24 hours)

### Section 2. Hazard identification

This product is considered hazardous by the Workplace Hazardous Materials Information System (WHMIS) 2015

**Classification of the substance or mixture** : SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements**

**Prevention** : Wear eye or face protection. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

## Section 2. Hazard identification

- Response** : Get medical advice or attention if you feel unwell. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	% (w/w)	CAS number
Amine neutralized carboxylic Acid	1 - 5	-
2,2',2''-nitilotriethanol	1 - 5	102-71-6
2-aminoethanol	1 - 5	141-43-5
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	1 - 5	4719-04-4
Amine neutralized carboxylic Acid	1 - 5	-
Amine neutralized substituted triazole	0.1 - 1	-

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

## Section 4. First-aid measures

### Description of necessary first aid measures

- General advice** : Get medical attention. If medical advice is needed, have product container or label at hand. Use personal protective equipment as required. Remove contaminated clothing and wash it before reuse. Wash skin surfaces thoroughly after contact.
- Inhalation** : Move affected person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and wash it before reuse. Get medical attention if symptoms occur.
- Eye contact** : Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Get medical attention if symptoms occur.
- Ingestion** : Ingestion may cause gastrointestinal irritation and diarrhea. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

### Most important symptoms/effects, acute and delayed

- Inhalation** : Not expected under normal use.
- Skin contact** : pain or irritation, redness, skin rash or hives
- Eye contact** : pain or irritation, redness, watering
- Ingestion** : Not expected under normal use.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

## Section 4. First-aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Use personal protective equipment as required.

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : In a fire, hazardous decomposition products may be produced. carbon oxides (CO, CO<sub>2</sub>) nitrogen oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protective equipment (see Section 8). Keep unnecessary personnel away. Avoid breathing vapor or mist. Provide adequate ventilation.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". Evacuate area.

- Environmental precautions** : Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Do not allow any potentially contaminated water, including rain water, runoff from fire fighting or spills, to enter any waterway, sewer or drain.

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
- Storage temperature** : Not available.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
2,2',2"-nitrilotriethanol	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> 8 hrs OEL: 5 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 5/2019).</b> TWA: 5 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 1/2018).</b> TWA: 3.1 mg/m<sup>3</sup> 8 hours. TWA: 0.5 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> <b>Skin sensitizer.</b> TWAEV: 5 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 10 mg/m<sup>3</sup> 15 minutes. TWA: 5 mg/m<sup>3</sup> 8 hours.</p>
2-aminoethanol	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> 8 hrs OEL: 7.5 mg/m<sup>3</sup> 8 hours. 8 hrs OEL: 3 ppm 8 hours. 15 min OEL: 15 mg/m<sup>3</sup> 15 minutes. 15 min OEL: 6 ppm 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 5/2019).</b> TWA: 3 ppm 8 hours. STEL: 6 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 1/2018).</b> TWA: 3 ppm 8 hours. STEL: 6 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 3 ppm 8 hours. TWAEV: 7.5 mg/m<sup>3</sup> 8 hours. STEV: 6 ppm 15 minutes. STEV: 15 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 6 ppm 15 minutes. TWA: 3 ppm 8 hours.</p>

## Section 8. Exposure controls/personal protection

<b>Appropriate engineering controls</b>	: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
<b>Environmental exposure controls</b>	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
<b><u>Individual protection measures</u></b>	
<b>Hygiene measures</b>	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Keep equipment clean.
<b>Eye/face protection</b>	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
<b>Hand protection</b>	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.
<b>Other skin protection</b>	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Respiratory protection</b>	: A respirator is not needed under normal and intended conditions of product use. Use appropriate respiratory protection if there is a risk of exceeding any exposure limits.
<b>Thermal hazards</b>	: Not expected under normal use. Not relevant/applicable due to nature of the product.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Clear., Green.
<b>Odor</b>	: Mild.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: 10
<b>Melting point</b>	: 0°C (32°F)
<b>Boiling point</b>	: 100°C (212°F)
<b>Flash point</b>	: Not available.
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.

## Section 9. Physical and chemical properties

<b>Vapor density</b>	: >1 [Air = 1]
<b>Relative density</b>	: 1.05
<b>Solubility</b>	: Easily soluble in the following materials: cold water.
<b>Solubility in water</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (40°C (104°F)): 0.73 cm <sup>2</sup> /s (73 cSt)

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific measures identified.
<b>Incompatible materials</b>	: Strong oxidizing materials. strong acids. strong alkalis
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

**Acute toxicity** : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Route	ATE value
Oral	19665.99 mg/kg
Dermal	39257.7 mg/kg
Inhalation (dusts and mists)	11.14 mg/l

### Numerical measures of toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2,2',2"-nitrioltriethanol 2-aminoethanol	LD50 Oral	Rat	7.39 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	1.5 mg/l	4 hours
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	LD50 Oral	Rat	1720 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat - Male, Female	0.371 mg/l	4 hours
	LD50 Oral	Rat	763 mg/kg	-

**Irritation/Corrosion** : Causes severe eye irritation. Causes skin irritation.

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
2,2',2"-nitritotriethanol	Eyes - Mild irritant	Rabbit	-	10 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Human	-	72 hours 15 mg l	-
	Skin - Severe irritant	Mouse	-	50 %	-
	Skin - Mild irritant	Rabbit	-	24 hours 560 mg	-
2-aminoethanol	Eyes - Severe irritant	Rabbit	-	250 ug	-
	Skin - Moderate irritant	Rabbit	-	505 mg	-

**Sensitization** : May cause sensitization by skin contact.

**Mutagenicity** : Based on available data, the classification criteria are not met.

**Carcinogenicity** : Based on available data, the classification criteria are not met.

Product/ingredient name	IARC	NTP
2,2',2"-nitritotriethanol	3	-

**Reproductive toxicity** : Based on available data, the classification criteria are not met.

**Specific target organ toxicity (single exposure)** : Based on available data, the classification criteria are not met.

Name	Category	Route of exposure	Target organs
2-aminoethanol	Category 3	-	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)** : May cause damage to organs through prolonged or repeated exposure.

Name	Category	Route of exposure	Target organs
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Category 1	inhalation	-

**Aspiration hazard** : Based on available data, the classification criteria are not met.

**Other information** : None identified.

### Information on the likely routes of exposure

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : Causes skin irritation. May cause sensitization by skin contact.

**Eye contact** : Causes serious eye irritation.

**Ingestion** : No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

May cause damage to organs through prolonged or repeated exposure.

### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : Not expected under normal use.

**Skin contact** : pain or irritation, redness, skin rash or hives

**Eye contact** : pain or irritation, redness, watering

**Ingestion** : Not expected under normal use.

## Section 12. Ecological information

This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects.

### Toxicity

Product/ingredient name	Result	Species	Exposure
2,2',2"-nitrilotriethanol	Acute EC50 609.98 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
2-aminoethanol	Acute LC50 11800000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 16000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute EC50 2.8 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl) triethanol	Acute LC50 >100000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 170 mg/l Fresh water	Fish - Carassius auratus	96 hours
	Acute EC50 6.66 mg/l	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 9 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 12 mg/l	Fish - Brachydanio rerio	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2,2',2"-nitrilotriethanol	-1	<3.9	low
2-aminoethanol	-1.31	-	low
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl) triethanol	-2	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Empty containers or liners may retain some product residues. Empty containers retain product residue and can be hazardous. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

## Section 14. Transport information

## Section 14. Transport information

	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

### Additional information

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

### International regulations

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**United States** : Not determined.

**Canada** : All components are listed or exempted.

## Section 16. Other information

<b>Version</b>	: 2.01 Quaker Houghton Product Stewardship
<b>Key to abbreviations</b>	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals HPR = Hazardous Products Regulations IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available SGG = Segregation Group UN = United Nations
<b>Key literature references and sources for data</b>	: <b>Safety data sheets of raw materials, global regulatory body information, scientific literature, and testing data .</b>

🔍 Indicates information that has changed from previously issued version.

### Disclaimer

This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is correct to the best of our knowledge, information and belief at the date of its publication. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. The company referenced in this Safety Data Sheet assumes no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of such company.

Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 1 of 10

## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

Product identifier used on the label

: **Isopropanol**

Product Code(s) : Not available.

Recommended use of the chemical and restrictions on use

: Solvent; Reagent  
Use pattern: Professional Use Only  
Restriction on use: None known

Chemical family : Pure substance

Name, address, and telephone number  
of the supplier:

**Comet Chemical Company Ltd.**

3463 Thomas Street

Innisfill, ON, Canada  
L9S 3W4

Supplier's Telephone # : 705-436-5580

**24 Hr. Emergency Tel #** : TERRRAPURE ENVIRONMENTAL : 800-567-7455

Name, address, and telephone number of  
the manufacturer:

Refer to supplier

### SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear colourless liquid. Alcoholic.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Flammable Liquids - Category 2

Serious eye damage/eye irritation - Category 2A

Specific Target Organ Toxicity, Single Exposure -Category 3 (respiratory)

Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects

Label elements

Hazard pictogram(s)



Signal Word

DANGER!

Hazard statement(s)

Highly flammable liquid and vapour!

Causes serious eye irritation.

May cause respiratory irritation.

May cause drowsiness or dizziness.



Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 2 of 10

## SAFETY DATA SHEET

### Precautionary statement(s)

Keep away from heat, open flames and hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground and bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing mist or vapours.  
Wash thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves and eye/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If eye irritation persists: get medical advice/attention.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
In case of fire: Use water fog, dry chemical, CO<sub>2</sub> or 'alcohol' foam for extinction.

Store in a well-ventilated place. Keep cool.  
Keep container tightly closed.  
Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Other hazards

Other hazards which do not result in classification: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration</u>
Isopropyl alcohol	Isopropyl alcohol 2-propanol	67-63-0	100.00

## SECTION 4. FIRST-AID MEASURES

### Description of first aid measures

- Ingestion* : Call a physician or poison control centre immediately. Do not induce vomiting. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.
- Inhalation* : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Get medical attention if symptoms persist.
- Skin contact* : Wash off with soap and plenty of water. If irritation or symptoms develop, seek medical attention. Wash contaminated clothing before re-use.
- Eye contact* : Immediately flush eyes with running water for at least 15 minutes. Obtain medical attention if irritation persists.

Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 3 of 10

## SAFETY DATA SHEET

### Most important symptoms and effects, both acute and delayed

- : Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis. Direct skin contact may cause slight or mild, transient irritation. May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties. May cause central nervous system effects. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

### Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically. This product is a CNS depressant.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing media

#### *Suitable extinguishing media*

- : Use water fog or fine spray, foams, carbon dioxide or dry chemical. Do not use a solid water stream as it may scatter and spread fire.

#### *Unsuitable extinguishing media*

- : Do not use a solid water stream as it may scatter and spread fire.

### Special hazards arising from the substance or mixture / Conditions of flammability

- : Vapors may travel considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Static discharge, impact, friction, and heat may ignite exposed chemical material.

### Flammability classification (OSHA 29 CFR 1910.106)

- : Flammable Liquids - Category 2

### Hazardous combustion products

- : Carbon monoxide, carbon dioxide, toxic vapours, gases or particulates.

### Special protective equipment and precautions for firefighters

#### *Protective equipment for fire-fighters*

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

#### *Special fire-fighting procedures*

- : Fight fires from a safe distance. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

- : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Individuals involved in the cleanup must wear appropriate personal protective equipment. For personal protection see section 8.

### Environmental precautions

- : Do not allow material to contaminate ground water system. For large spills, dike the area to prevent spreading.

### Methods and material for containment and cleaning up

- : Ventilate area of release. Stop spill or leak at source if safely possible. Dike for water control. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with inert, non-combustible absorbent material (e.g. sand, vermiculite), then place material into open, unsealed containers. For waste disposal, see Section 13 of the SDS.



Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 4 of 10

## SAFETY DATA SHEET

### Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).  
US CERCLA Reportable quantity (RQ): None.

### SECTION 7. HANDLING AND STORAGE

#### Precautions for safe handling

- : Use only in well-ventilated areas. Wear suitable protective equipment during handling. Do not ingest or swallow. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep away from heat and flame. Use only non-sparking tools with this material. Avoid contact with incompatible materials. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not use pressure to empty drums. Do not cut, weld, drill or grind on or near this container. Follow labeled warnings even after container is emptied.

#### Conditions for safe storage

- : Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

#### Incompatible materials

- : Strong oxidizing agents; Strong acids.; Alkali metals; Aluminium. . .

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Limits:

Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Isopropyl alcohol	200 ppm	400 ppm	400 ppm (980 mg/m <sup>3</sup> )	N/Av

#### Exposure controls

##### Ventilation and engineering measures

- : Ensure adequate ventilation, especially in confined areas. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

##### Respiratory protection

- : Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

##### Skin protection

- : Wear impervious gloves, such as nitrile rubber. Advice should be sought from glove suppliers.

##### Eye / face protection

- : Chemical splash goggles are recommended. A full face shield may also be necessary.

##### Other protective equipment

- : An eyewash station and safety shower should be made available in the immediate working area. Depending on conditions of use, an impervious apron should be worn. Other equipment may be required depending on workplace standards.

##### General hygiene considerations

- : Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Do not ingest. Do not eat, drink or smoke when using this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

- : Clear colourless liquid.

Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 5 of 10

## SAFETY DATA SHEET

**Odour** : Alcohol  
**Odour threshold** : 3-60 ppm  
**pH** : N/Av  
**Melting/Freezing point** : - 89°C (--128.2°F)  
**Initial boiling point and boiling range**  
: 82.5°C (180.5°F)  
**Flash point** : 13°C (-55.4°F)  
**Flashpoint (Method)** : closed cup  
**Evaporation rate (BuAe = 1)** : Not available.  
**Flammability (solid, gas)** : Not applicable.  
**Lower flammable limit (% by vol.)**  
: 2.5%  
**Upper flammable limit (% by vol.)**  
: 12%  
**Oxidizing properties** : None.  
**Explosive properties** : Not explosive  
**Vapour pressure** : 24.7  
**Vapour density** : Not available.  
**Relative density / Specific gravity**  
: 0.79  
**Solubility in water** : Complete  
**Other solubility(ies)** : Soluble in most organic solvents (e.g. ethanol, acetone, diethyl ether, chloroform).  
**Partition coefficient: n-octanol/water or Coefficient of water/oil distribution**  
: 0.05  
**Auto-ignition temperature** : 399°C (750.2°F)  
**Decomposition temperature** : Not applicable.  
**Viscosity** : 2.1 mPa.s @ 25°C  
**Volatiles (% by weight)** : Not available.  
**Volatile organic Compounds (VOC's)**  
: N/Av  
**Absolute pressure of container**  
: N/Av  
**Flame projection length** : N/Av  
**Other physical/chemical comments**  
: Molecular formula: C3-H8-OC C3-H8-O  
Molecular Weight: 60.1 g/mol

### SECTION 10. STABILITY AND REACTIVITY

**Reactivity** : Not normally reactive.  
**Chemical stability** : Stable under the recommended storage and handling conditions prescribed.  
**Possibility of hazardous reactions**  
: Hazardous polymerization will not occur.  
**Conditions to avoid** : Keep away from excessive heat, open flames, sparks and other possible sources of ignition. Avoid contact with incompatible materials. Do not use in areas without adequate ventilation. Avoid heat, open flames, sparks, static electricity and electrical equipment.  
**Incompatible materials** : Strong oxidizing agents; Strong acids.; Alkali metals; Aluminium. . .  
**Hazardous decomposition products**  
: None known, refer to hazardous combustion products in Section 5.



Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 6 of 10

## SAFETY DATA SHEET

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption  
: NO

#### Potential Health Effects:

##### Signs and symptoms of short-term (acute) exposure

###### *Sign and symptoms Inhalation*

- : May cause irritation of the nose, throat, mucous membranes, and respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.

###### *Sign and symptoms ingestion*

- : May cause irritation of mouth, throat, and stomach. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

###### *Sign and symptoms skin*

- : May cause mild skin irritation.

###### *Sign and symptoms eyes*

- : May cause severe eye irritation.

##### Potential Chronic Health Effects

- : Prolonged or repeated skin contact may cause drying and irritation. Prolonged overexposure may cause liver and kidney effects.

##### Mutagenicity

- : Not expected to be mutagenic in humans.

##### Carcinogenicity

- : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

##### Reproductive effects & Teratogenicity

- : Not expected to have other reproductive effects.

##### Sensitization to material

- : Not expected to be a skin or respiratory sensitizer.

##### Specific target organ effects

- : Eyes, skin, respiratory system, digestive system, central nervous system. Liver

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification:

Specific Target Organ Toxicity, Single Exposure -Category 3 (respiratory)

Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects

May cause respiratory irritation. May cause drowsiness or dizziness.

##### Medical conditions aggravated by overexposure

- : Pre-existing skin, eye and respiratory disorders.

##### Synergistic materials

- : None known or reported by the manufacturer.

##### Toxicological data

- : See below for toxicological data on the substance.

Chemical name	LC <sub>50</sub> (4hr)	LD <sub>50</sub>	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Isopropyl alcohol	17 000 ppm (41.8 mg/L) (vapour)	4720 mg/kg	12 890 mg/kg

Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 7 of 10

## SAFETY DATA SHEET

**Other important toxicological hazards**

: None known or reported by the manufacturer.

**SECTION 12. ECOLOGICAL INFORMATION**
**Ecotoxicity** : See the following tables for individual ingredient ecotoxicity data.

**Ecotoxicity data:**

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Isopropyl alcohol	67-63-0	9640 mg/L (Fathead minnow)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Isopropyl alcohol	67-63-0	> 10 000 mg/L/24hr (Daphnia magna)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Isopropyl alcohol	67-63-0	N/Av	N/Av	None.

**Persistence and degradability**

: Readily biodegradable.

**Bioaccumulation potential**

: Does not significantly accumulate in organisms.

<u>Components</u>	<u>Partition coefficient n-octanol/ater (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Isopropyl alcohol (CAS 67-63-0)	0.05	1.0

**Mobility in soil** : No data is available on the product itself.

**Other Adverse Environmental effects**

: No data is available on the product itself.

**SECTION 13. DISPOSAL CONSIDERATIONS**
**Handling for Disposal**

: See Section 7 (Handling and Storage) for further details. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not cut, weld, drill or grind on or near this container.

**Methods of Disposal**

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

**RCRA**

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 8 of 10

## SAFETY DATA SHEET

SECTION 14. TRANSPORTATION INFORMATION					
Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1219	ISOPROPANOL	3	II	
<b>TDG Additional information</b>	May be shipped as a Limited Quantity when transported in containers no larger than 5.0 L, in combination packagings no larger than 30 kg gross mass.				
49CFR/DOT	UN1219	ISOPROPANOL; or ISOPROPYL ALCOHOL	3	II	
<b>49CFR/DOT Additional information</b>	For limited quantity and other exemptions see section 173.150.				
ICAO/IATA	UN1219	Isopropanol; or Isopropyl alcohol	3	II	
<b>ICAO/IATA Additional information</b>	Refer to IATA/ICAO packaging instruction.				
IMDG	UN1219	ISOPROPANOL; or ISOPROPYL ALCOHOL	3	II	
<b>IMDG Additional information</b>	Refer to the IMDG regulations for more information.				

**Special precautions for user** : Keep away from heat, sparks and open flame. - No smoking.

**Environmental hazards** : See ECOLOGICAL INFORMATION, Section 12.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

: Not available.

### SECTION 15 - REGULATORY INFORMATION

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Isopropyl alcohol	67-63-0	Yes	None.	None.	Yes	No

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.



Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 9 of 10

## SAFETY DATA SHEET

### US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Isopropyl alcohol	67-63-0	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes

### Canadian Information:

WHMIS Classification: Refer to Section 2 for a WHMIS Classification for this product.  
All ingredients are present on the DSL.

### International Information:

Components listed below are present on the following International Inventory list:

Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Isopropyl alcohol	67-63-0	200-661-7	Present	Present	(2)-207	KE-29363	Present	HSR001180

## SECTION 16. OTHER INFORMATION

**Legend**

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CA: California
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CNS: Central Nervous System
- CSA: Canadian Standards Association
- DOT: Department of Transportation
- EPA: Environmental Protection Agency
- HMIS: Hazardous Materials Identification System
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- Inh: Inhalation
- IUCLID: International Uniform Chemical Information Database
- LC: Lethal Concentration
- LD: Lethal Dose
- MA: Massachusetts
- MN: Minnesota
- N/Ap: Not Applicable
- N/Av: Not Available
- NFPA: National Fire Protection Association
- NIOSH: National Institute of Occupational Safety and Health
- NJ: New Jersey
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PA: Pennsylvania
- PEL: Permissible exposure limit
- RCRA: Resource Conservation and Recovery Act
- RI: Rhode Island

Isopropanol

SDS Preparation Date (mm/dd/yyyy): 09/10/2015

Page 10 of 10

## SAFETY DATA SHEET

RTECS: Registry of Toxic Effects of Chemical Substances  
SARA: Superfund Amendments and Reauthorization Act  
STEL: Short Term Exposure Limit  
TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
TLV: Threshold Limit Values  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Identification System

**References** : Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2015 (Chempendium, RTECs, HSDB, INCHEM).  
European Chemicals Agency, Classification Legislation, 2015  
OECD- The Global Portal to Information on Chemical Substances - eChemPortal, 2015  
Material Safety Data Sheet from manufacturer

**Preparation Date (mm/dd/yyyy)**

: 09/10/2015

**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

<p><b>Prepared for:</b> Comet Chemical Company Ltd. 3463 Thomas Street Innisfill, ON L9S 3W4 Information (M-F 8:00-5:00): 705-436-5580 <a href="http://www.cometchemical.com">www.cometchemical.com</a></p>	
<p><b>Prepared by:</b> ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.): (888) 977-4834 (Canada) <a href="http://www.thecompliancecenter.com">http://www.thecompliancecenter.com</a></p>	

### DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by / obtained from Comet Chemical Company Ltd. and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Comet Chemical Company Ltd. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Comet Chemical Company Ltd.

END OF DOCUMENT



**Canada Colors and Chemicals Limited**

**152 Kennedy Road South  
Brampton, Ontario  
Canada  
L6W 3G4**

**General Inquiry Number: (905) 459-1232**

**Material Safety Data Sheet  
Attached**



# Safety Data Sheet

Prepared according to GHS

## 1. Identification

**Product Name** Kensol 30  
**Product Code** 4111  
**Recommended Use** *Mineral Spirits is a widely-used solvent, paint thinner, spot remover, asphalt reducer, hand cleaners, parts cleaners, a million uses and applications.*

**Company** American Refining Group, Inc.  
 77 North Kendall Avenue  
 Bradford, PA 16701  
 www.amref.com  
 msds@amref.com

**Emergency Telephone Number(s)** Chemtrec 1-800-424-9300 (24 HRS)  
 ARG: 814-368-1297 (24 HRS)

This product is distributed by  
 Canada Colors and Chemicals Limited  
 General Inquiry: (905) 459-1232  
 24 Hour Emergency: (416) 444-2112  
 CCC: Product Code: 616700  
 CCC: Product Name: MINERAL SPIRITS K-30



## 2. Hazards Identification

**GHS Classification** Flammable Liquids Category 3  
 Aspiration Hazard Category 1  
 Eye Irritation Category 2B  
 Skin Irritation Category 2  
 Specific Target Organ Toxicity-Single Exposure (narcotic effects) – Category 3  
 Static Accumulating Liquid

**Signal Word** DANGER!

**Hazard Statements** Flammable liquid and vapor  
 May be fatal if swallowed and enters airways.  
 Causes eye irritation  
 Causes skin Irritation  
 May cause respiratory irritation; or May cause drowsiness or dizziness

**Other Hazard Information** Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment  
 Sparks may ignite liquid and vapor may cause flash fire.  
 Liquid conductivity is <100 pS/m (picosiemans/meter) at 77°F

**GHS Pictogram**



**Precautionary Statements** Do not breathe mist or vapors  
 Use only outdoors or in a well-ventilated area

**2. Hazards Identification**

**If inhaled: Remove person to fresh air and keep comfortable for breathing.**

**Call a poison center/doctor if you feel unwell.**

**If swallowed: immediately call a poison center or doctor.**

**Do NOT induce vomiting.**

**Store Locked up**

**Store in a well-ventilated place.**

**Wear protective gloves/clothing/eye protection/face protection**

**Keep away from heat/sparks/open flames/hot surfaces. –No smoking**

**Keep container tightly closed**

**Ground/bond container and receiving equipment. This alone may be insufficient to remove static electricity.**

**Use explosion-proof electrical/ventilating/lighting equipment.**

**Use only non-sparking tools**

**If on skin: take of immediately all contaminated clothing. Rinse skin with water/shower.**

**Store in a well-ventilated place. Keep cool.**

**Wash thoroughly after handling.**

**If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**

**If eye irritation persists: get medical attention/advice.**

**If skin irritation occurs: Get medical advice/attention.**

**Take off contaminated clothing and wash it before reuse.**

**Dispose of contents in accordance with local/regional/national/international regulations**

**3. Composition / Information on Ingredients**

CAS No.	Component	Common Name	Percent
8052-41-3	Stoddard solvent	Mineral Spirits	100%

**Hazardous Constituents contained in complex substances**

CAS No.	Component	Common Name	Percent
111-84-2	Nonane	Nonane	1.0-7.0
25551-13-7	Trimethyl Benzene (mixed Isomers)	Hemellitene, Pseudocumene, mesitylene	0.5-4.0

**4. First Aid Measures**

**Eyes**

**Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.**

**Skin**

**In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.**

#### 4. First Aid Measures

**Inhalation**  
**Ingestion**

Get medical attention immediately.  
Move exposed person to fresh air.  
DO NOT INDUCE VOMITING. If conscious, rinse out mouth with water.

**Symptoms(Acute and delayed)**

Exposure to high concentrations of vapors may cause irritation to the eyes, nose and throat, nausea, and dizziness.

**Note to Physicians**

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

#### 5. Fire Fighting Measures

**Suitable Extinguishing Media**

Use dry chemical, CO<sub>2</sub>, water spray (FOG) or foam

**Unsuitable Extinguishing Media**

Avoid solid water stream as it may scatter and spread fire.

**Specific Hazards Arising from Chemical**

Elevated temperatures can lead to the formation of irritating vapors. Decomposing products may include the following materials: Carbon dioxide and Carbon monoxide.

This product is a static accumulating liquid. Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor may cause flash fire. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Restrict flow velocity to avoid build-up of static charge. Refer to NFPA 77, API 2003, and CENELEC CLC/TR 50404 for further guidance.

**Protective Equipment and Precautions for Firefighters**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

#### 6. Accidental Release Measures

**Personal Precautions**

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**Environmental Precautions**

Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

**Methods for Containment**

Stop leak if without risk. Use absorbent pads or earthen dams to contain.

**Methods for Cleanup**

A vapor suppressing foam may be used to reduce vapors. Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled container

#### 7. Handling and Storage

**Handling Procedures**

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated

**7. Handling and Storage**

clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Use non-sparking tools.

**Shipping and Storing Procedures**

Store in accordance with local regulations. Store in a segregated and approved area. Keep in the original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Do not store in unlabeled containers. Store and use away from heat, sparks, open flame or any other ignition source. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers that retain product residue may be hazardous. **Incompatibilities:**

Oxidizing Agents

**8. Exposure Controls / Personal Protection**

**Component Exposure Limits**

**Stoddard Solvent**

<b>ACGIH TLV:</b>	TWA:	100 ppm	TWA:	N/A mg/m <sup>3</sup>	STEL:	N/A ppm	STEL:	N/A mg/m <sup>3</sup>
<b>OSHA PEL:</b>	TWA:	500 ppm	TWA:	2900 mg/m <sup>3</sup>	STEL:	N/A ppm	STEL:	N/A mg/m <sup>3</sup>
<b>NIOSH REL:</b>	TWA:	N/A ppm	TWA:	350 mg/m <sup>3</sup>	STEL:	N/A ppm	STEL:	N/A mg/m <sup>3</sup>
<b>NIOSH Ceiling:</b>		1800 mg/m <sup>3</sup> (15 minutes)						

**Nonane**

<b>ACGIH TLV:</b>	TWA:	200 ppm	TWA:	N/A mg/m <sup>3</sup>	STEL:	N/A ppm	STEL:	N/A mg/m <sup>3</sup>
-------------------	------	---------	------	-----------------------	-------	---------	-------	-----------------------

**Trimethyl Benzene (all isomers)**

<b>ACGIH TLV:</b>	TWA:	25 ppm	TWA:	N/A mg/m <sup>3</sup>	STEL:	N/A ppm	STEL:	N/A mg/m <sup>3</sup>
-------------------	------	--------	------	-----------------------	-------	---------	-------	-----------------------

N/A signifies not available

**Engineering Controls**

This product is a static accumulating liquid. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Material should be handled in enclosed vessels and equipment. Use only in adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Eye/Face Protection**

Chemical goggles and face shield.

**Skin Protection**

Chemical resistant, impervious gloves complying with an approved standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

**Respiratory Protection**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

**General Hygiene**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

**9. Physical and Chemical Properties**

*Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Please see the Product Specification Sheet for further information.*

<b>Appearance</b>	Colorless	<b>Flammability</b>	Flammable Liquid and vapor
<b>Physical State</b>	Liquid	<b>Upper/Lower Flammability Limits</b>	Upper: 7.5% Lower: 1.0%
<b>Odor</b>	Petroleum Solvent	<b>Vapor Pressure (mm Hg at 20°C)</b>	0.62
<b>Odor Threshold</b>	Not Available	<b>Vapor Density</b>	Not Available
<b>pH</b>	Not Available	<b>Relative Density (lbs/gal)</b>	6.43
<b>Melting/Freezing Point (°F)</b>	Not Available	<b>Water Soluble</b>	No
<b>Initial Boiling Point (°F)</b>	310	<b>Partition Coefficient: n-octanol/water</b>	Not Available
<b>Boiling Range (°F)</b>	310-393	<b>Auto-ignition Temperature (°F)</b>	752
<b>Flash Point (°F) Tag Closed Cup ASTM D-56</b>	105	<b>Decomposition Temperature (°F)</b>	Not Available
<b>Evaporation Rate</b>	Not Available	<b>Viscosity (40°C mm<sup>2</sup>/s)</b>	1.8
<b>Volatile Organic Compounds (g/L)</b>	770.3	<b>Aromatic Content (Typical Vol %)</b>	10.5

**10. Chemical Stability & Reactivity Information**

<b>Reactivity</b>	Polymerization will not occur
<b>Chemical Stability</b>	Stable under normal conditions. If heated, product's static accumulation will rise and could cause flash fire.
<b>Hazardous Reactions</b>	None, under normal processing.
<b>Conditions to Avoid</b>	High temperatures, flames, sparks
<b>Incompatibility</b>	Strong acids and oxidizing materials
<b>Hazardous Decomposition Products</b>	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

**11. Toxicological Information**

<b>Acute Exposure</b>	
<b>Respiratory Irritation</b>	An inhalation hazard may only arise if product is used in aerosol conditions or if heated up. If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract.
<b>Eye Irritation</b>	Causes mild eye irritation that is reversible with proper care.
<b>Skin Irritation</b>	Causes mild skin irritation that is reversible with proper care.
<b>Sensitization</b>	Not expected to cause skin or respiratory sensitization.
<b>Aspiration Hazard</b>	If swallowed can be aspirated into lungs and cause chemical pneumonia, varying degrees of pulmonary injury or death. If swallowed, do NOT induce vomiting.

**Chronic Exposure  
Target Organ Effects**

Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death.  
Prolonged or repeated direct exposure to the skin results in symptoms of irritation and redness, dermatitis or oil acne.

**Carcinogenicity**

No data available to indicate product or any components present at greater than .1% are carcinogenic.

**Mutagenicity**

No data available to indicate product or any components present at greater than .1% are mutagenic or genotoxic.

**Reproductive Toxicity**

No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.

**Teratogenicity**

No data available to indicate product or any components contained at greater than .1% may cause birth defects.

**Analysis – LD50 / LC50**

Inhalation LC50 Rat	>5 mg/L (4Hr mist)
Oral LD50 Rat	>5000 mg/kg
Dermal LD50 Rabbit	>2000 mg/kg

**12. Ecological Information**

**Component Analysis- Ecotoxicity – Aquatic Life**

Duration/Test/Species	Concentration/Conditions
96 hr LL50 <i>Oncorhynchus mykiss</i>	8.2 mg/L
48 hr EL50 <i>Oncorhynchus mykiss</i>	32 mg/L
96 hr EL50 <i>Scenedesmus subspicatus</i>	45 mg/L
Chronic Survival NOELR Aquatic Vertebrates	2.6 mg/L
Chronic Growth NOELR Aquatic Vertebrates	2.6 mg/L
Chronic Survival NOELR <i>Daphnia magna</i>	16 mg/L
Chronic Reproduction EL 50 <i>Daphnia magna</i>	10 mg/L
Chronic reproduction NOELR <i>Daphnia magna</i>	2.6 mg/L

<b>Persistence &amp; Degradability</b>	Inherently biodegradable
<b>Bioaccumulation Potential</b>	Not Available
<b>Soil Mobility</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

**13. Disposal Considerations**

**Disposal Instructions**

The generation of waste should be avoided or minimized wherever possible. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

**14. Transportation Information**

Emergency Response Guide No. 128 *North American Emergency Response Guide Book*

	UN Number	Shipping Name (technical name)	Hazard Class	Packing Group	Labels/Placard
<b>U.S. DOT Bulk (over 119 gallons)</b>	1268	Petroleum Distillates, N.O.S. (Naphtha Solvent)	Combustible Liquid	III	

<b>U.S. DOT Non-Bulk</b>		Not Regulated			Exempt from labeling and placarding unless shipped via air or vessel
--------------------------	--	---------------	--	--	--

<b>IATA</b>	1268	Petroleum Distillates, N.O.S. (Naphtha Solvent)	3	III	
-------------	------	---	---	-----	--



<b>IMDG</b>	1268	Petroleum Distillates, N.O.S. (Naphtha Solvent)	3	III	
-------------	------	---	---	-----	--



**15. Regulatory Information**

**SARA Extremely Hazardous Substances (Sections 302 & 304)**

**SARA Section 313**

This product does not contain greater than 1% of any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B. This product contains the following components in concentrations greater than 0.1% for carcinogenic substances and/or 1.0% of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of

**15. Regulatory Information**

1986 and 40 CFR Part 372:  
1,2,4 Trimethylbenzene (CASRN: 95-63-6): 2.7%

**SARA Section 311 & 312 Classifications**  
**Acute Hazard** Yes  
**Chronic Hazard** Yes  
**Fire Hazard** Yes  
**Reactivity Hazard** No

**CERCLA** This product contains the following components listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4:

NONE

**California Prop 65** This product is not routinely tested to determine chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components.

**California Air Resource Board (CARB) Bin Number** 15

**Global Chemical Inventories**

Inventory	
US TSCA	Present*
EU	Present
Japan	Not available
Australia	Present
New Zealand	Present
Canada	Present
Switzerland	Not available
Korea	Present
Philippines	Present
China	Present
Taiwan	Not available

\* May be subject to TSCA 12b export notification. Contains Nonane (CASRN: 111-84-2) at 7 %.

**16. Other Information**

**US NFPA Ratings**

Health	Fire	Reactivity
1	2	0

**HMIS Ratings**

Health	Fire	Physical Hazards
1	2	0

**Revision Date** 9 June 2015  
**Revision Reason** New SDS

*The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.*

**Kensol 30**  
**4111**

**Revision Date: 6/9/2015**  
**Revision #:1**

**American Refining Group, Inc.**  
**Page 9 of 9**

**End of SDS**

---



Issue Date 25-May-2017

Revision Date 25-May-2017

Version 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** PARALIQ GTE 703

### Other means of identification

**Product code:** 022148

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Lubricant.

**Uses advised against** Consumer use

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Klüber Lubrication NA LP  
32 Industrial Drive  
Londonderry, NH 03053  
Phone: (603) 647-4104  
Fax: (603) 647-4106

### Emergency telephone number

**Emergency Telephone** CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

## 2. HAZARD IDENTIFICATION

### Classification

#### **WHMIS 2015 Regulatory Status**

This chemical is not considered hazardous by the Canadian Hazardous Products Regulations (WHMIS 2015).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

### Label Elements

#### **EMERGENCY OVERVIEW**

#### **Signal word**

Not Hazardous

The product contains no substances which at their given concentration, are considered to be hazardous to health

**Appearance** Paste

**Physical state** Solid

**Odor** Mild

### Hazards not otherwise classified (HNOC)

**Other information**

• Avoid induction of air, low cross-section of pipes, high pressures and fast pressure increase. Degas system carefully before putting into operation. The product belongs to the category silicone greases with PTFE. This product category may form explosive decomposition reactions in conveying devices with high increase in pressure and low cross-section of pipes.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Components	CAS-No	Weight %	Trade Secret
Silicone oil	Proprietary	50 - 60%	*
PTFE	Proprietary	40 - 50%	*

**4. FIRST AID MEASURES****First aid measures**

<b>Eye contact:</b>	Flush eye with water for 15 minutes. If symptoms persist, call a physician.
<b>Skin contact:</b>	Rinse with plenty of water. If skin irritation persists, call a physician.
<b>Inhalation:</b>	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
<b>Ingestion:</b>	Do not induce vomiting. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media:**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

**Specific hazards arising from the chemical**

Water may be used to cool closed containers. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Hazardous combustion products** Carbon oxides. Hydrogen fluoride. Halogenated compounds. Formaldehyde.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Special protective equipment for firefighters:**

In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

#### Environmental precautions

**Environmental precautions:** Do not allow material to contaminate ground water system. Prevent product from entering drains.

#### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Scrape-up. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

#### Precautions for safe handling

**Handling** Avoid contact with skin, eyes and clothing. Spilling onto the container's outside will make container slippery. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

#### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep cool. Keep in properly labelled containers. Keep away from direct sunlight.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

**Exposure Guidelines** Contains mineral oil, vegetable oil, and/or synthetic oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg/m<sup>3</sup>, ACGIH STEL of 10 mg/m<sup>3</sup>.

#### Appropriate engineering controls

**Engineering measures to reduce exposure:** Ensure adequate ventilation, especially in confined areas.

#### Individual protection measures, such as personal protective equipment

**Respiratory protection:** No personal respiratory protective equipment normally required.

**Hand protection:** Gloves made of plastic or rubber

**Eye protection:** Avoid contact with eyes

**Skin and body protection:** Usual safety precautions while handling the product will provide adequate protection against this potential effect

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<b>Physical state</b> Solid			
<b>Appearance</b> Paste	<b>Odor</b> Mild	<b>Color</b> White	<b>Odor threshold</b> No information available

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	<b>pH</b>	Not applicable
-----------------	---------------	-------------------------	-----------	----------------

<b>Melting point/freezing point</b>	No information available	<b>Boiling point / boiling range</b>	No information available
<b>Flash point</b>	Not Applicable ISO 2592	<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available	<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	No information available	<b>Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	< 0.001 hPa, 20 °C	<b>Vapor density</b>	No information available
<b>Specific Gravity</b>	1.31	<b>Water solubility</b>	Insoluble in water
<b>Solubility in other solvents</b>	No information available	<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available	<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available	<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>	No information available		
<b>Oxidizing properties</b>	No information available		

**Other information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY****Reactivity**

Not applicable

**Chemical stability**

<b>Stability</b>	Stable up to 280°C
<b>Possibility of Hazardous Reactions</b>	
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

**Conditions to avoid**

<b>Conditions to avoid</b>	Heat, flames and sparks
----------------------------	-------------------------

**Hazardous Decomposition Products**

<b>Hazardous Decomposition Products</b>	Upon prolonged heating above 150 °C hazardous decomposition products may be released: Formaldehyde, Hydrogen fluoride
---	---

**Incompatible materials**

<b>Incompatible materials</b>	Strong oxidising agents
-------------------------------	-------------------------

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

<b>Product Information</b>	Product does not present an acute toxicity hazard based on known or supplied information
<b>Eye contact</b>	Contact with eyes may cause irritation.
<b>Skin contact</b>	Prolonged contact may cause redness and irritation.
<b>Inhalation</b>	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

**Information on toxicological effects****Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Sensitization</b>	No sensitization responses were observed.
<b>Mutagenic effects:</b>	Did not show mutagenic or teratogenic effects in animal experiments.
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.

<b>Components</b>	PTFE -
<b>ACGIH</b>	-
<b>IARC:</b>	Group 3
<b>NTP Report on Carcinogens List -</b>	-
<b>OSHA</b>	-

<b>Reproductive toxicity</b>	This product does not contain any known or suspected reproductive hazards.
<b>STOT - Single Exposure</b>	None under normal use conditions.
<b>STOT - Repeated Exposure</b>	None under normal use conditions.
<b>Aspiration hazard</b>	Not applicable.

**Numerical measures of toxicity - Product Information****12. ECOLOGICAL INFORMATION****Ecotoxicity**

No known hazards to the aquatic environment.

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Disposal of wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal.

## 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not Regulated
<b><u>TDG</u></b>	Not Regulated
<b><u>IATA-DGR</u></b>	Not Regulated
<b><u>IMO / IMDG</u></b>	Not Regulated

## 15. REGULATORY INFORMATION

### **International Inventories**

<b>TSCA:</b>	Listed in TSCA
<b>DSL:</b>	All of the components in this product are listed in DSL
<b>EINECS/ELINCS</b>	This product complies with EINECS/ELINCS
<b>CHINA:</b>	This product complies with China IECSC.
<b>KECL:</b>	This product does not comply with Korea KECL.
<b>PICCS:</b>	This product complies with Philippines PICCS.
<b>AICS:</b>	All the constituents of this material are listed on the Australian AICS

### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### **Canada HPR Statement**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations (WHMIS 2015).

### **US Federal Regulations**

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### **SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**State Regulations (RTK)****California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Components	NJRTK:	MARTK:	PARTK:
PTFE -	Not Listed	Not Listed	Listed.

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

<b>16. OTHER INFORMATION</b>
------------------------------

**Nfpa:**

**Health:** 1

**Flammability:** 1

**Instability:** 0

**NFPA/HMIS \* for Carc, Muta, Tera, Specific Organ \***

**HMIS health rating:**

**Health:** 1

**Flammability:** 1

**Physical hazards:** 0

**Personal protection:** B

**Issue Date** 25-May-2017

**Revision Date** 25-May-2017

**Revision Note**

Not applicable

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

Issue Date 27-Sep-2017

Revision Date 27-Sep-2017

Version 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** PETAMO GHY 133 N

### Other means of identification

**Product code:** 094061

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Lubricant.

**Uses advised against** Consumer use

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Klüber Lubrication NA LP  
32 Industrial Drive  
Londonderry, NH 03053  
Phone: (603) 647-4104  
Fax: (603) 647-4106

### Emergency telephone number

**Emergency Telephone** CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

## 2. HAZARD IDENTIFICATION

### Classification

#### **WHMIS 2015 Regulatory Status**

This chemical is considered hazardous by the Canadian Hazardous Products Regulations (WHMIS 2015).

Skin sensitization	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

### Label Elements

#### **EMERGENCY OVERVIEW**

#### **Signal word**

Warning

#### **Hazard statements**

May cause an allergic skin reaction  
Suspected of damaging fertility or the unborn child  
May cause damage to organs through prolonged or repeated exposure



**Appearance** Paste

**Physical state** Solid

**Odor** Mild

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Skin** IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation or rash occurs: Get medical advice/attention  
 Wash contaminated clothing before reuse

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

**Other information**

• Harmful to aquatic life with long lasting effects

**Unknown Acute Toxicity**

10.07% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

This material is considered hazardous by the Canadian Hazardous Products Regulation (WHMIS 2015).

Components	CAS-No	Weight %	Trade Secret
Mineral Oil	Proprietary	50 - 60%	*
Phenol, isopropylated, phosphate (3:1)	68937-41-7	1 - 3%	*

**4. FIRST AID MEASURES**

**First aid measures**

**Eye contact:** Flush eye with water for 15 minutes. If symptoms persist, call a physician.

**Skin contact:** Rinse with plenty of water. If skin irritation persists, call a physician.

**Inhalation:** Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.

**Ingestion:** Do not induce vomiting. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms:** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media:**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

**Specific hazards arising from the chemical**

In the event of fire, cool tanks with water spray. Collect contaminated fire extinguishing water separately. Do not allow to enter drains or surface water.

**Hazardous combustion products** Carbon oxides. Phosphorus oxides. Oxides of sulfur.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Special protective equipment for firefighters:**

In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

**Environmental precautions**

**Environmental precautions:** Do not allow material to contaminate ground water system. Prevent product from entering drains.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Scrape-up. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Handling** Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Keep away from direct sunlight. Store in original container. Keep in properly labelled containers.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Components	ACGIH TLV	OSHA (TWA mg/m <sup>3</sup> ):	IDLH:
Mineral Oil -	5 mg/m <sup>3</sup> (oil mist)	5 mg/m <sup>3</sup> (oil mist)	

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection:** No personal respiratory protective equipment normally required. No special protective equipment required.

**Hand protection:** Impervious gloves

**Eye protection:** Safety glasses with side-shields

**Skin and body protection:** Usual safety precautions while handling the product will provide adequate protection against this potential effect

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state** Solid  
**Appearance** Paste                      **Odor** Mild                      **Color** Beige                      **Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	<u>pH</u>	<u>Not applicable</u>
<b>Melting point/freezing point</b>	No information available		<b>Boiling point / boiling range</b>	No information available
<b>Flash point</b>	No information available	Cleveland Open Cup	<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available		<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	No information available		<b>Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	No information available		<b>Vapor density</b>	No information available
<b>Specific Gravity</b>	0.88		<b>Water solubility</b>	Insoluble in water
<b>Solubility in other solvents</b>	No information available		<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available		<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available		<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>		No information available		
<b>Oxidizing properties</b>		No information available		

**Other information**

**Softening point** No information available  
**Molecular weight** No information available

VOC Content (%) No information available  
 Density No information available  
 Bulk density No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**  
 Not applicable

**Chemical stability**

**Stability** Stable under normal conditions  
**Possibility of Hazardous Reactions**

**Possibility of Hazardous Reactions** None under normal processing.  
**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid**

**Conditions to avoid** No special storage conditions required  
**Hazardous Decomposition Products**

**Hazardous Decomposition Products** None reasonably foreseeable

**Incompatible materials**

**Incompatible materials** Oxidising agents

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information  
**Eye contact** Contact with eyes may cause irritation.  
**Skin contact** Substance may cause slight skin irritation. May cause sensitization by skin contact.  
**Inhalation** Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.  
**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Components	Oral LD50	Dermal LD50	Inhalation LC50
Phenol, isopropylated, phosphate (3:1) - 68937-41-7	> 30000 mg/kg ( Rat )	-	> 200 mg/L ( Rat ) 1 h

**Information on toxicological effects**

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** May cause sensitization by skin contact.  
**Mutagenic effects:** Did not show mutagenic or teratogenic effects in animal experiments.  
**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.  
**Reproductive toxicity** Product is or contains a chemical which is a known or suspected reproductive hazard.  
**STOT - Single Exposure** None under normal use conditions.  
**STOT - Repeated Exposure** Causes damage to organs through prolonged or repeated exposure if swallowed.

**Aspiration hazard** Not applicable.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** 10.07% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

<b>ATEmix (oral)</b>	5115 mg/kg
<b>ATEmix (dermal)</b>	2548 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	18.9 mg/l
<b>ATEmix (inhalation-vapor)</b>	12847143

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Harmful to aquatic life with long lasting effects

10.07% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Phenol, isopropylated, phosphate (3:1) - 68937-41-7	
<b>Algae/aquatic plants</b>	-
<b>Fish</b>	1.15: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 10.8: 96 h Pimephales promelas mg/L LC50 static 1000: 96 h Brachydanio rerio mg/L LC50 static
<b>Crustacea</b>	14: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

The product is insoluble and floats on water.

Components	Partition coefficient
Phenol, isopropylated, phosphate (3:1) - 68937-41-7	4.59

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Empty containers should be taken for local recycling, recovery or waste disposal.

**14. TRANSPORT INFORMATION**

**DOT** Not Regulated by any means of transportation

**TDG** Not Regulated

**IATA-DGR** Not Regulated

IMO / IMDG

Not Regulated

## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA:</b>	Listed in TSCA
<b>DSL:</b>	Not listed in DSL
<b>EINECS/ELINCS</b>	This product complies with EINECS/ELINCS
<b>CHINA:</b>	This product complies with China IECSC.
<b>KECL:</b>	This product does not comply with Korea KECL.
<b>PICCS:</b>	This product does not comply with Philippines PICCS.
<b>AICS:</b>	This product does not comply with Australia AICS

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### Canada HPR Statement

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations (WHMIS 2015).

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### **SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### **State Regulations (RTK)**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

### **U.S. State Right-to-Know Regulations**

Components	NJRTK:	MARTK:	PARTK:
Mineral Oil -	Substance no. 1437 Listed. Substance no. 4004 Listed.	Not Listed	Not Listed

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

**Nfpa:**

Health: 2

Flammability: 1

Instability 0

NFPA/HMIS \* for Carc, Muta, Tera, Specific Organ \*

**HMIS health rating:**

Health: 2

Flammability: 1

Physical hazards 0

Personal protection B

Issue Date 27-Sep-2017

Revision Date 27-Sep-2017

**Revision Note**

Not applicable

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**Meropa 68, 100, 150, 220, 320, 460, 680, 1000, 1500**

**Product Use:** Industrial Gear Lubricant

**Product Number(s):** 219506, 219510, 219515, 219522, 219532, 219546, 219568, 277209, 277210, 277211, 277212, 277213, 277214, 277215, 277216, 277219, 278039, 278040, 278041, 278042, 278043, 278044, 278047

**Synonyms:** ISOCLEAN Certified, Meropa 68, 100, 150, 220, 320, 460, 680

### Company Identification

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

### Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

### Product Information

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

HAZARDS NOT OTHERWISE CLASSIFIED: Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed** Not Applicable

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish

flames.

#### **PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

### **SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

### **SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **GENERAL CONSIDERATIONS:**

Revision Number: 6

Revision Date: January 26, 2017

3 of 9

Meropa 68, 100, 150, 220, 320, 460,  
680, 1000, 1500

SDS: 23551

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m <sup>3</sup>	--	-	-
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	-	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1  
**Initial Boiling Point:** No data available  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Melting Point:** No data available  
**Density:** 0.87 kg/l - 0.89 kg/l @ 15°C (59°F)  
**Viscosity:** 175 mm<sup>2</sup>/s - 1100 mm<sup>2</sup>/s @ 40°C (104°F)  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 215 °C (419 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

<b>SECTION 12 ECOLOGICAL INFORMATION</b>
--

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

### SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

### SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

### SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

#### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Gear oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16

**Revision Date:** January 26, 2017

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001

Bollinger Canyon Road, San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Issue Date 25-May-2017

Revision Date 25-May-2017

Version 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** PARALIQ GTE 703

### Other means of identification

**Product code:** 022148

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Lubricant.

**Uses advised against** Consumer use

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Klüber Lubrication NA LP  
32 Industrial Drive  
Londonderry, NH 03053  
Phone: (603) 647-4104  
Fax: (603) 647-4106

### Emergency telephone number

**Emergency Telephone** CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

## 2. HAZARD IDENTIFICATION

### Classification

#### **WHMIS 2015 Regulatory Status**

This chemical is not considered hazardous by the Canadian Hazardous Products Regulations (WHMIS 2015).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

### Label Elements

#### **EMERGENCY OVERVIEW**

#### **Signal word**

Not Hazardous

The product contains no substances which at their given concentration, are considered to be hazardous to health

**Appearance** Paste

**Physical state** Solid

**Odor** Mild

### Hazards not otherwise classified (HNOC)

**Other information**

• Avoid induction of air, low cross-section of pipes, high pressures and fast pressure increase. Degas system carefully before putting into operation. The product belongs to the category silicone greases with PTFE. This product category may form explosive decomposition reactions in conveying devices with high increase in pressure and low cross-section of pipes.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Components	CAS-No	Weight %	Trade Secret
Silicone oil	Proprietary	50 - 60%	*
PTFE	Proprietary	40 - 50%	*

**4. FIRST AID MEASURES****First aid measures**

<b>Eye contact:</b>	Flush eye with water for 15 minutes. If symptoms persist, call a physician.
<b>Skin contact:</b>	Rinse with plenty of water. If skin irritation persists, call a physician.
<b>Inhalation:</b>	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
<b>Ingestion:</b>	Do not induce vomiting. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media:**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

**Specific hazards arising from the chemical**

Water may be used to cool closed containers. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Hazardous combustion products** Carbon oxides. Hydrogen fluoride. Halogenated compounds. Formaldehyde.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Special protective equipment for firefighters:**

In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

#### Environmental precautions

**Environmental precautions:** Do not allow material to contaminate ground water system. Prevent product from entering drains.

#### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Scrape-up. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

#### Precautions for safe handling

**Handling** Avoid contact with skin, eyes and clothing. Spilling onto the container's outside will make container slippery. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

#### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep cool. Keep in properly labelled containers. Keep away from direct sunlight.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

**Exposure Guidelines** Contains mineral oil, vegetable oil, and/or synthetic oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg/m<sup>3</sup>, ACGIH STEL of 10 mg/m<sup>3</sup>.

#### Appropriate engineering controls

**Engineering measures to reduce exposure:** Ensure adequate ventilation, especially in confined areas.

#### Individual protection measures, such as personal protective equipment

**Respiratory protection:** No personal respiratory protective equipment normally required.

**Hand protection:** Gloves made of plastic or rubber

**Eye protection:** Avoid contact with eyes

**Skin and body protection:** Usual safety precautions while handling the product will provide adequate protection against this potential effect

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<b>Physical state</b> Solid			
<b>Appearance</b> Paste	<b>Odor</b> Mild	<b>Color</b> White	<b>Odor threshold</b> No information available

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	<b>pH</b>	Not applicable
-----------------	---------------	-------------------------	-----------	----------------

<b>Melting point/freezing point</b>	No information available	<b>Boiling point / boiling range</b>	No information available
<b>Flash point</b>	Not Applicable ISO 2592	<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available	<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	No information available	<b>Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	< 0.001 hPa, 20 °C	<b>Vapor density</b>	No information available
<b>Specific Gravity</b>	1.31	<b>Water solubility</b>	Insoluble in water
<b>Solubility in other solvents</b>	No information available	<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available	<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available	<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>	No information available		
<b>Oxidizing properties</b>	No information available		

**Other information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

Not applicable

**Chemical stability**

<b>Stability</b>	Stable up to 280°C
<b>Possibility of Hazardous Reactions</b>	
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

**Conditions to avoid**

<b>Conditions to avoid</b>	Heat, flames and sparks
----------------------------	-------------------------

**Hazardous Decomposition Products**

<b>Hazardous Decomposition Products</b>	Upon prolonged heating above 150 °C hazardous decomposition products may be released: Formaldehyde, Hydrogen fluoride
---	---

**Incompatible materials**

<b>Incompatible materials</b>	Strong oxidising agents
-------------------------------	-------------------------

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

<b>Product Information</b>	Product does not present an acute toxicity hazard based on known or supplied information
<b>Eye contact</b>	Contact with eyes may cause irritation.
<b>Skin contact</b>	Prolonged contact may cause redness and irritation.
<b>Inhalation</b>	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

**Information on toxicological effects****Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Sensitization</b>	No sensitization responses were observed.
<b>Mutagenic effects:</b>	Did not show mutagenic or teratogenic effects in animal experiments.
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.

<b>Components</b>	PTFE -
<b>ACGIH</b>	-
<b>IARC:</b>	Group 3
<b>NTP Report on Carcinogens List -</b>	-
<b>OSHA</b>	-

<b>Reproductive toxicity</b>	This product does not contain any known or suspected reproductive hazards.
<b>STOT - Single Exposure</b>	None under normal use conditions.
<b>STOT - Repeated Exposure</b>	None under normal use conditions.
<b>Aspiration hazard</b>	Not applicable.

**Numerical measures of toxicity - Product Information****12. ECOLOGICAL INFORMATION****Ecotoxicity**

No known hazards to the aquatic environment.

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Disposal of wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal.

## 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not Regulated
<b><u>TDG</u></b>	Not Regulated
<b><u>IATA-DGR</u></b>	Not Regulated
<b><u>IMO / IMDG</u></b>	Not Regulated

## 15. REGULATORY INFORMATION

### **International Inventories**

<b>TSCA:</b>	Listed in TSCA
<b>DSL:</b>	All of the components in this product are listed in DSL
<b>EINECS/ELINCS</b>	This product complies with EINECS/ELINCS
<b>CHINA:</b>	This product complies with China IECSC.
<b>KECL:</b>	This product does not comply with Korea KECL.
<b>PICCS:</b>	This product complies with Philippines PICCS.
<b>AICS:</b>	All the constituents of this material are listed on the Australian AICS

### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### **Canada HPR Statement**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations (WHMIS 2015).

### **US Federal Regulations**

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### **SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**State Regulations (RTK)**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Components	NJRTK:	MARTK:	PARTK:
PTFE -	Not Listed	Not Listed	Listed.

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

**Nfpa:**

Health: 1

Flammability: 1

Instability 0

NFPA/HMIS \* for Carc, Muta, Tera, Specific Organ \*

**HMIS health rating:**

Health: 1

Flammability: 1

Physical hazards 0

Personal protection B

Issue Date 25-May-2017

Revision Date 25-May-2017

Revision Note

Not applicable

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

Issue Date 27-Sep-2017

Revision Date 27-Sep-2017

Version 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** PETAMO GHY 133 N

### Other means of identification

**Product code:** 094061

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Lubricant.

**Uses advised against** Consumer use

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Klüber Lubrication NA LP  
32 Industrial Drive  
Londonderry, NH 03053  
Phone: (603) 647-4104  
Fax: (603) 647-4106

### Emergency telephone number

**Emergency Telephone** CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

## 2. HAZARD IDENTIFICATION

### Classification

#### **WHMIS 2015 Regulatory Status**

This chemical is considered hazardous by the Canadian Hazardous Products Regulations (WHMIS 2015).

Skin sensitization	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

### Label Elements

#### **EMERGENCY OVERVIEW**

#### **Signal word**

Warning

#### **Hazard statements**

May cause an allergic skin reaction  
Suspected of damaging fertility or the unborn child  
May cause damage to organs through prolonged or repeated exposure



**Appearance** Paste

**Physical state** Solid

**Odor** Mild

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Skin** IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation or rash occurs: Get medical advice/attention  
 Wash contaminated clothing before reuse

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

**Other information**

• Harmful to aquatic life with long lasting effects

**Unknown Acute Toxicity**

10.07% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

This material is considered hazardous by the Canadian Hazardous Products Regulation (WHMIS 2015).

Components	CAS-No	Weight %	Trade Secret
Mineral Oil	Proprietary	50 - 60%	*
Phenol, isopropylated, phosphate (3:1)	68937-41-7	1 - 3%	*

**4. FIRST AID MEASURES**

**First aid measures**

**Eye contact:** Flush eye with water for 15 minutes. If symptoms persist, call a physician.

**Skin contact:** Rinse with plenty of water. If skin irritation persists, call a physician.

**Inhalation:** Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.

**Ingestion:** Do not induce vomiting. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms:** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media:**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

**Specific hazards arising from the chemical**

In the event of fire, cool tanks with water spray. Collect contaminated fire extinguishing water separately. Do not allow to enter drains or surface water.

**Hazardous combustion products** Carbon oxides. Phosphorus oxides. Oxides of sulfur.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Special protective equipment for firefighters:**

In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

**Environmental precautions**

**Environmental precautions:** Do not allow material to contaminate ground water system. Prevent product from entering drains.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Scrape-up. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Handling** Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Keep away from direct sunlight. Store in original container. Keep in properly labelled containers.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Components	ACGIH TLV	OSHA (TWA mg/m <sup>3</sup> ):	IDLH:
Mineral Oil -	5 mg/m <sup>3</sup> (oil mist)	5 mg/m <sup>3</sup> (oil mist)	

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection:** No personal respiratory protective equipment normally required. No special protective equipment required.

**Hand protection:** Impervious gloves

**Eye protection:** Safety glasses with side-shields

**Skin and body protection:** Usual safety precautions while handling the product will provide adequate protection against this potential effect

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state** Solid  
**Appearance** Paste      **Odor** Mild      **Color** Beige      **Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>		
<b>Melting point/freezing point</b>	No information available		<b>pH</b>	Not applicable
<b>Flash point</b>	No information available	Cleveland Open Cup	<b>Boiling point / boiling range</b>	No information available
<b>Flammability (solid, gas)</b>	No information available		<b>Evaporation rate</b>	No information available
<b>Upper flammability limit:</b>	No information available		<b>Flammability Limit in Air Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	No information available		<b>Vapor density</b>	No information available
<b>Specific Gravity</b>	0.88		<b>Water solubility</b>	Insoluble in water
<b>Solubility in other solvents</b>	No information available		<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available		<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available		<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>		No information available		
<b>Oxidizing properties</b>		No information available		

**Other information**

**Softening point** No information available  
**Molecular weight** No information available

VOC Content (%) No information available  
 Density No information available  
 Bulk density No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**  
 Not applicable

**Chemical stability**

**Stability** Stable under normal conditions  
**Possibility of Hazardous Reactions**

**Possibility of Hazardous Reactions** None under normal processing.  
**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid**

**Conditions to avoid** No special storage conditions required  
**Hazardous Decomposition Products**

**Hazardous Decomposition Products** None reasonably foreseeable

**Incompatible materials**

**Incompatible materials** Oxidising agents

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information  
**Eye contact** Contact with eyes may cause irritation.  
**Skin contact** Substance may cause slight skin irritation. May cause sensitization by skin contact.  
**Inhalation** Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.  
**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Components	Oral LD50	Dermal LD50	Inhalation LC50
Phenol, isopropylated, phosphate (3:1) - 68937-41-7	> 30000 mg/kg ( Rat )	-	> 200 mg/L ( Rat ) 1 h

**Information on toxicological effects**

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** May cause sensitization by skin contact.  
**Mutagenic effects:** Did not show mutagenic or teratogenic effects in animal experiments.  
**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.  
**Reproductive toxicity** Product is or contains a chemical which is a known or suspected reproductive hazard.  
**STOT - Single Exposure** None under normal use conditions.  
**STOT - Repeated Exposure** Causes damage to organs through prolonged or repeated exposure if swallowed.

**Aspiration hazard** Not applicable.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** 10.07% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

<b>ATEmix (oral)</b>	5115 mg/kg
<b>ATEmix (dermal)</b>	2548 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	18.9 mg/l
<b>ATEmix (inhalation-vapor)</b>	12847143

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Harmful to aquatic life with long lasting effects

10.07% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Phenol, isopropylated, phosphate (3:1) - 68937-41-7	
<b>Algae/aquatic plants</b>	-
<b>Fish</b>	1.15: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 10.8: 96 h Pimephales promelas mg/L LC50 static 1000: 96 h Brachydanio rerio mg/L LC50 static
<b>Crustacea</b>	14: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

The product is insoluble and floats on water.

Components	Partition coefficient
Phenol, isopropylated, phosphate (3:1) - 68937-41-7	4.59

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Empty containers should be taken for local recycling, recovery or waste disposal.

**14. TRANSPORT INFORMATION**

**DOT** Not Regulated by any means of transportation

**TDG** Not Regulated

**IATA-DGR** Not Regulated

IMO / IMDG

Not Regulated

## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA:</b>	Listed in TSCA
<b>DSL:</b>	Not listed in DSL
<b>EINECS/ELINCS</b>	This product complies with EINECS/ELINCS
<b>CHINA:</b>	This product complies with China IECSC.
<b>KECL:</b>	This product does not comply with Korea KECL.
<b>PICCS:</b>	This product does not comply with Philippines PICCS.
<b>AICS:</b>	This product does not comply with Australia AICS

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### Canada HPR Statement

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations (WHMIS 2015).

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### **SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### **State Regulations (RTK)**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

### **U.S. State Right-to-Know Regulations**

Components	NJRTK:	MARTK:	PARTK:
Mineral Oil -	Substance no. 1437 Listed. Substance no. 4004 Listed.	Not Listed	Not Listed

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

**Nfpa:**

Health: 2

Flammability: 1

Instability 0

NFPA/HMIS \* for Carc, Muta, Tera, Specific Organ \*

**HMIS health rating:**

Health: 2

Flammability: 1

Physical hazards 0

Personal protection B

Issue Date 27-Sep-2017

Revision Date 27-Sep-2017

**Revision Note**

Not applicable

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

**1. Product and Company Identification**

<b>Product identifier</b>	<b>Mineral Spirits: Comsol 3139, Comsol DX 3139, Comsol 3135, Comsol D3135</b>
<b>Version #</b>	01
<b>Issue date</b>	07-07-2014
<b>Supersedes date</b>	07-07-2014
<b>Chemical description</b>	Petroleum distillate
<b>CAS #</b>	Mixture
<b>MSDS Number</b>	COM370
<b>Product use</b>	Professional Use Only
<b>Manufacturer information</b>	Refer to supplier
<b>Supplier</b>	Comet Chemical 3463 Thomas Street Innisfill, ON L9S 3W4 CA Information (M-F 8:00-5:00): 705-436-5580 24 Hour Number (Newalta): 800-567-7455

**2. Hazards Identification**

<b>Emergency overview</b>	Clear, colorless liquid. Mild petroleum odor. DANGER Combustible liquid and vapor. Will be easily ignited by heat, spark or flames. Vapors may cause a flash fire or ignite explosively. Causes skin and eye irritation. May cause central nervous system effects. May cause respiratory irritation. May be an aspiration hazard. Aspiration may occur during swallowing or vomiting, resulting in lung injury. May cause nausea, vomiting, headache and other central nervous system effects.
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Eyes</b>	Direct contact may cause very mild, temporary irritation and redness.
<b>Skin</b>	Causes moderate skin irritation.
<b>Inhalation</b>	May cause irritation of respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.
<b>Ingestion</b>	May be harmful if swallowed. Ingestion of large amounts may cause nausea, vomiting, diarrhea, as well as depression of the central nervous system. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
<b>Target organs</b>	Central nervous system. Eyes. Respiratory system. Skin.
<b>Chronic effects</b>	Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.
<b>Signs and symptoms</b>	Direct eye contact may cause slight or mild, transient irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Causes moderate skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause drowsiness or dizziness. May cause respiratory irritation. May cause irritation to the nose, throat and upper respiratory tract. Symptoms may include coughing, choking and wheezing. Ingestion of large amounts may cause nausea, vomiting, diarrhea, as well as depression of the central nervous system. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
<b>Potential environmental effects</b>	See ECOLOGICAL INFORMATION, Section 12.

**3. Composition / Information on Ingredients**

<b>Components</b>	<b>CAS #</b>	<b>Percent</b>
Distillates (petroleum), Hydrotreated Light	64742-47-8	*
Stoddard Solvent	8052-41-3	*

\*Composition of this ingredient, which is a complex mixture, may vary between the two indicated CAS numbers or is a mixture of both".

## 4. First Aid Measures

### First aid procedures

<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Skin contact</b>	Immediately flush skin with plenty of water. Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, trained personnel should give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention/advice.
<b>Ingestion</b>	Seek immediate medical attention/advice. Do not induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

### Notes to physician

Aspiration hazard. This product is a CNS depressant.

### General advice

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire Fighting Measures

### Flammable properties

Combustible by WHMIS criteria. Combustible liquid and vapor. This material may be ignited by heat, sparks, flames, or other sources of ignition (e.g static electricity, pilot lights, or mechanical / electrical equipment). Vapors are heavier than air and may spread along floors. Vapors may travel considerable distance to a source of ignition and flash back. Heat may cause the containers to explode. Vapors may form explosive mixtures with air.

### Extinguishing media

**Suitable extinguishing media** Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### Protection of firefighters

**Specific hazards arising from the chemical** Fire may produce irritating, corrosive and/or toxic gases. Vapours may be heavier than air and may collect in confined and low-lying areas. Vapors are heavier than air and may spread along floors. This material may be ignited by heat, sparks, flames, or other sources of ignition (e.g static electricity, pilot lights, or mechanical / electrical equipment).

**Protective equipment for firefighters** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

### Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

### Explosion data

**Sensitivity to static discharge** May be sensitive to static discharge.

**Sensitivity to mechanical impact** Not expected to be sensitive to mechanical impact.

### Hazardous combustion products

Carbon oxides. Other unidentified organic compounds.

### General fire hazards

Combustible liquid and vapor. This material may be ignited by heat, sparks, flames, or other sources of ignition (e.g static electricity, pilot lights, or mechanical / electrical equipment). Vapors may travel considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors.

## 6. Accidental Release Measures

### Personal precautions

Wear appropriate protective equipment and clothing during clean-up. Ventilate the contaminated area. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. See Section 8 of the MSDS for Personal Protective Equipment.

### Environmental precautions

For large (industrial) releases, prevent spill from entering a waterway.

### Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**Methods for cleaning up** Ventilate the contaminated area. Remove sources of ignition. Use only non-sparking tools. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand). Local authorities should be advised if significant spillages cannot be contained. For waste disposal, see section 13 of the MSDS.

**Other information** Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

**Handling** Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. All equipment used when handling the product must be grounded. Avoid breathing mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. When using do not eat or drink. Do not use in areas without adequate ventilation. Wash thoroughly after handling. Avoid release to the environment.

**Storage** Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a closed container away from incompatible materials. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the MSDS). Keep in an area equipped with sprinklers. Use care in handling/storage.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Stoddard Solvent (CAS 8052-41-3)	TWA	100 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Stoddard Solvent (CAS 8052-41-3)	PEL	2900 mg/m <sup>3</sup>
		500 ppm

**Biological limit values** No biological exposure limits noted for the ingredient(s).

### Exposure guidelines

#### Canada - Alberta OELs: Skin designation

Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8) Can be absorbed through the skin.

#### Canada - British Columbia OELs: Skin designation

Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8) Can be absorbed through the skin.

#### Canada - Saskatchewan OELs: Skin designation

Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8) Can be absorbed through the skin.

**Engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

**Eye/face protection** Chemical goggles and face shield are recommended. Eye wash fountain and emergency showers are recommended.

**Skin protection** Wear chemical protective equipment that is specifically recommended by the manufacturer. Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Impervious gloves. Advice should be sought from glove suppliers.

**Respiratory protection** Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. A NIOSH/MSHA approved air-purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may be used to reduce exposure. Advice should be sought from respiratory protection specialists.

**Hand protection** Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Clear, colorless liquid with mild odor.
<b>Physical state</b>	Liquid.
<b>Form</b>	Transparent liquid.
<b>Color</b>	Clear colorless or nearly colorless
<b>Odor</b>	Mild petroleum odor.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Vapor pressure</b>	2.28 mm Hg
<b>Vapor density</b>	5
<b>Boiling point</b>	316.4 - 383 °F (158 - 195 °C)
<b>Melting point/Freezing point</b>	-72.4 °F (-58 °C)
<b>Solubility (water)</b>	Insoluble
<b>Specific gravity</b>	0.81 estimated
<b>Relative density</b>	Not available.
<b>Flash point</b>	109.4 °F (43.0 °C) Closed Cup
<b>Flammability limits in air, upper, % by volume</b>	13.3 %
<b>Flammability limits in air, lower, % by volume</b>	1 %
<b>Auto-ignition temperature</b>	444.2 °F (229 °C)
<b>Evaporation rate</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Other data</b>	
<b>Density</b>	0.79 g/cm <sup>3</sup>

## 10. Chemical Stability & Reactivity Information

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Keep away from heat, sparks and open flame. Keep away from direct sunlight. Avoid contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known. The following may be released during a fire: Carbon oxides. Organic compounds.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

Components	Species	Test Results
Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 6.03 mg/l, 4 hours (Mist)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg

Components	Species	Test Results
Stoddard Solvent (CAS 8052-41-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 3000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5.5 mg/l, 4 hours (Mist) 21.4 mg/l, 4 hours (Mist)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
<b>Acute effects</b>	This product is not classified as an acute toxicity hazard. See data above for individual ingredient acute toxicity data.	
<b>Sensitization</b>	Not expected to be a skin or respiratory sensitizer.	
<b>Chronic effects</b>	Chronic skin contact with low concentrations may cause dermatitis.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Stoddard Solvent (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.	
<b>Skin corrosion/irritation</b>	Causes moderate skin irritation.	
<b>Serious eye damage/irritation</b>	Direct contact may cause very mild, temporary irritation and redness.	
<b>Mutagenicity</b>	Not expected to be mutagenic.	
<b>Reproductive effects</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Teratogenicity</b>	This product is not expected to be a teratogen.	
<b>Symptoms and target organs</b>	Direct eye contact may cause slight or mild, transient irritation. Causes moderate skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Ingestion of large amounts may cause nausea, vomiting, diarrhea, as well as depression of the central nervous system. May be an aspiration hazard. May cause central nervous system effects. May cause irritation to the nose, throat and upper respiratory tract. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.	
<b>Epidemiology</b>	No epidemiological data is available for this product.	
<b>Synergistic materials</b>	Not available.	

## 12. Ecological Information

### Ecotoxicological data

Components	Species	Test Results	
Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	1.4 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2 - 5 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	NOEL	Daphnia	0.42 mg/l, 21 days
Fish	NOEL	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.098 mg/l, 21 days
Stoddard Solvent (CAS 8052-41-3)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Green algae (Desmodesmus subspicatus)	0.58 - 1.2 mg/l, 72 hours
Crustacea	EC50	Water flea (Daphnia magna)	0.42 - 2.3 mg/l, 48 hours

Components	Species	Test Results
Fish	LC50 Bluegill ( <i>Lepomis macrochirus</i> )	2.1 - 4.2 mg/l, 96 hours
<i>Chronic</i> Algae	NOEC Green algae ( <i>Desmodesmus subspicatus</i> )	0.16 mg/l, 72 hours
Crustacea	NOEC Water flea ( <i>Daphnia magna</i> )	0.1 - 0.37 mg/l, 21 days

<b>Ecotoxicity</b>	Toxic to aquatic life with long lasting effects.
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Aquatic toxicity</b>	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>Persistence and degradability</b>	Not inherently biodegradable.
<b>Partition coefficient</b> Stoddard Solvent	3.16 - 7.15
<b>Mobility in environmental media</b>	The product is immiscible with water.

### 13. Disposal Considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport Information

#### TDG

<b>UN number</b>	UN1268
<b>UN proper shipping name</b>	PETROLEUM DISTILLATES, N.O.S.; or PETROLEUM PRODUCTS, N.O.S. (Naphtha)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, MSDS and emergency procedures before handling.

#### IATA

<b>UN number</b>	UN1268
<b>UN proper shipping name</b>	PETROLEUM DISTILLATES, N.O.S. (Naphtha)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	Yes
<b>ERG Code</b>	3L
<b>Special precautions for user</b>	Read safety instructions, MSDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed.
<b>Cargo aircraft only</b>	Allowed.

#### IMDG

<b>UN number</b>	UN1268
<b>UN proper shipping name</b>	PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (Naphtha)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3

**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** F-E, S-E  
**Special precautions for user** Read safety instructions, MSDS and emergency procedures before handling.

IATA; IMDG; TDG



Marine pollutant



## 15. Regulatory Information

### Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

### WHMIS status

Controlled

### WHMIS classification

B3 - Combustible Liquids  
D2B - Other Toxic Effects-TOXIC

### WHMIS labeling



### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other Information

### HMIS® ratings

Health: 2\*  
Flammability: 2  
Physical hazard: 0

### NFPA ratings

Health: 2  
Flammability: 2  
Instability: 0

### Disclaimer

Prepared by: ICC The Compliance Center Inc. 1-888-442-9628  
<http://www.thecompliancecenter.com>

#### Disclaimer

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by / obtained from Comet Chemical Company Inc. and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Comet Chemical Company Inc. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Comet Chemical Company Inc.

### Legend to abbreviations and acronyms used in the SDS

ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Services  
CEPA: Canadian Environmental Protection Act  
CPR: Controlled Products Regulation  
DSL: Domestic Substance List  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods  
IUCLID: International Uniform Chemical Information Database  
LC: Lethal Concentration  
LD: Lethal Dose  
NIOSH: National Institute of Occupational Safety and Health  
NTP: National Toxicology Program  
OECD: Organisation for Economic Co operation and Development  
TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit

### References

Canadian Centre for Occupational Health and Safety, CCIInfoWeb Databases, 2014 (Chempendium, RTECs, HSDB, INCHEM)  
European Chemicals Agency, Classification Legislation, 2014.  
Material Safety Data Sheet from manufacturer.  
OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2014.



Comet Chemical Company Ltd.  
 3463 Thomas Street  
 Innisfill, ON, Canada, L9S 3W4  
 Telephone: (705) 436 5580

**Mineral Spirits**

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 1 of 13

**SAFETY DATA SHEET**

**SECTION 1. IDENTIFICATION**

Product identifier used on the label

: **Mineral Spirits**

Product Code(s) : None reported.

Recommended use of the chemical and restrictions on use

: Industrial solvent.  
 Use pattern: Professional Use Only  
 Restriction on use: None known

Chemical family : Petroleum distillates

Name, address, and telephone number of the supplier:

**Comet Chemical Company Ltd.**

3463 Thomas Street  
 Innisfill, ON, Canada  
 L9S 3W4

Supplier's Telephone # : 705-436-5580

24 Hr. Emergency Tel # : TERRRAPURE ENVIRONMENTAL : 800-567-7455

Name, address, and telephone number of the manufacturer:

Refer to supplier

**SECTION 2. HAZARDS IDENTIFICATION**

Classification of the chemical

Clear colourless liquid. Petroleum hydrocarbon odour.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Flammable Liquids - Category 3

Skin Irritation - Category 2

Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects

Aspiration toxicity: Category 1

Label elements

Hazard pictogram(s)



Signal Word

**DANGER!**

Hazard statement(s)

Flammable liquid and vapor.  
 Causes skin irritation.  
 May cause drowsiness and dizziness.  
 May be fatal if swallowed and enters airways.



**Mineral Spirits**

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

**SAFETY DATA SHEET**

*Precautionary statement(s)*

Keep away from heat, sparks and open flame. - No smoking.  
Keep container tightly closed.  
Ground and bond container and receiving equipment.  
Use explosion-proof electrical and ventilating equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing mist or vapours.  
Wash thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves and eye/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Wash contaminated clothing before reuse.  
If skin irritation occurs: Get medical advice/attention.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
If swallowed: Immediately call a poison center/doctor.  
Do NOT induce vomiting.  
In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam to extinguish.

Store locked up.  
Store in a well-ventilated place. Keep cool.  
Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards**

Other hazards which do not result in classification:  
Ingestion may cause irritation of the mouth, throat and stomach. May cause respiratory irritation. Contact with eyes may cause irritation.

Prolonged or repeated contact may cause drying, cracking and defatting of the skin.

Environmental precautions:  
Avoid release to the environment. Toxic to aquatic life with long lasting effects. See ECOLOGICAL INFORMATION, Section 12.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance with impurities

Chemical name	Common name and synonyms	CAS #	Concentration (% by weight)
Stoddard solvent (mineral spirits)	Mineral spirits; White spirits; High flash naphtha	8052-41-3	100.00
Hydrotreated light distillate	Distillates (petroleum), hydrotreated light	64742-47-8	100.00
Trimethylbenzenes (mixed isomers)	Trimethylbenzene (mixed isomers) Methylxylenes	25551-13-7	Trace
Xylenes	Dimethylbenzene; Methyltoluene; Xycol	1330-20-7	Trace
Cumene		98-82-8	Trace
Ethylbenzene	Ethylbenzol Phenylethane	100-41-4	Trace



Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 3 of 13

## SAFETY DATA SHEET

Note that this product may contain either of the above mentioned CAS numbers..

### SECTION 4. FIRST-AID MEASURES

**Description of first aid measures**

- Ingestion* : If swallowed: Immediately call a poison center/doctor. Do not induce vomiting. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Inhalation* : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Call a POISON CENTER or doctor/physician if you feel unwell.
- Skin contact* : Wash affected areas with soap and water. Take off contaminated clothing and wash before re-use. Get medical attention if irritation develops and persists.
- Eye contact* : Flush with large amounts of water for 15 minutes. Remove contact lenses, if present and easy to do. If irritation or symptoms develop, seek medical attention.

**Most important symptoms and effects, both acute and delayed**

- : Causes skin irritation. Symptoms may include redness, edema, drying defatting and cracking of the skin. Aspiration hazard - material may cause lung inflammation or damage if it enters lungs through vomiting or swallowing. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. May cause respiratory irritation. May cause headache, nausea, dizziness and other symptoms of central nervous system depression. May cause central nervous system effects. Symptoms may include coughing, choking and wheezing. Direct eye contact may cause temporary redness. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May have laxative effects.

**Indication of any immediate medical attention and special treatment needed**

- : Treat symptomatically. Aspiration hazard. This product is a CNS depressant. .

### SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

*Suitable extinguishing media*

- : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

*Unsuitable extinguishing media*

- : Do not use a solid water stream as it may scatter and spread fire.

**Special hazards arising from the substance or mixture / Conditions of flammability**

- : Flammable liquid and vapour. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapour can travel considerable distance and flashback to a source of ignition. Vapours are heavier than air and collect in confined and low-lying areas.

**Flammability classification (OSHA 29 CFR 1910.106)**

- : Flammable Liquids - Category 3

**Hazardous combustion products**

- : Carbon dioxide and carbon monoxide. Other unidentified organic compounds .

**Special protective equipment and precautions for firefighters**

*Protective equipment for fire-fighters*

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. A full-body chemical resistant suit should be worn.

*Special fire-fighting procedures*

- : Evacuate personnel to safe areas. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Dike for water control. Avoid release to the environment.



Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 4 of 13

## SAFETY DATA SHEET

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

- : All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

#### Methods and material for containment and cleaning up

- : Ventilate the area. Prevent further leakage or spillage if safe to do so. Dike for water control. Use only non-sparking tools and equipment in the clean-up process. Spilled material will create slippery surfaces. Clean up promptly. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contact the proper local authorities.

#### Special spill response procedures

- : In case of transportation accident, contact TERRAPURE ENVIRONMENTAL at 1-800-567-7455.  
US CERCLA Reportable quantity (RQ): None reportable.

### SECTION 7. HANDLING AND STORAGE

#### Precautions for safe handling

- : Use only outdoors or in a well-ventilated area. Wear suitable protective equipment. Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Keep away from heat and open flames. - No smoking. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting/equipment. Take precautionary measures against static discharges. Bond and ground transfer containers and equipment to avoid static accumulation. Label containers appropriately. Wash thoroughly after handling. Keep containers closed when not in use.

- Conditions for safe storage** : Store locked up. Store in a cool, dry, well-ventilated area. Keep container tightly closed. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

- Incompatible materials** : Strong oxidizers (e.g. Chlorine, Peroxides, etc.).



Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 5 of 13

**SAFETY DATA SHEET**

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Stoddard solvent (mineral spirits)	100 ppm	N/Av	500 ppm ; 2900 mg/m <sup>3</sup>	N/Av
Hydrotreated light distillate	200 mg/m <sup>3</sup> (as total hydrocarbon vapour)	N/Av	N/Av	N/Av
Trimethylbenzenes (mixed isomers)	25 ppm	N/Av	25 ppm (final rule limit)	N/Av
Xylenes	100 ppm	150 ppm	100 ppm (435 mg/m <sup>3</sup> )	N/Av
Cumene	50 ppm	N/Av	50 ppm (245 mg/m <sup>3</sup> ) (Skin)	N/Av
Ethylbenzene	20 ppm	N/Av	100 ppm (435 mg/m <sup>3</sup> )	N/Av

**Exposure controls**

**Ventilation and engineering measures**

: Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapours below their respective threshold limit value. Use explosion-proof electrical and ventilating equipment.

**Respiratory protection**

: Respiratory protection is required if the concentrations exceed the TLV. Use a NIOSH approved dust respirator if dust levels exceed exposure limits. Seek advice from respiratory protection specialists.

**Skin protection**

: Wear protective gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

**Eye / face protection**

: Wear eye/face protection. Chemical safety glasses with side shields or splash proof goggles.

**Other protective equipment**

: Wear appropriate protective clothing to prevent skin contact, such as coveralls or long sleeved shirt, long pants, and shoes and socks. An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

**General hygiene considerations**

: Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance** : Clear colourless liquid.
- Odour** : Mild petroleum odour.
- Odour threshold** : No information available.
- pH** : No information available.
- Melting/Freezing point** : -58°C(-72.4°F)
- Initial boiling point and boiling range** : 157-218°C (314.6-424.4°F)
- Flash point** : 42°C
- Flashpoint (Method)** : closed cup



Mineral Sprlts

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 6 of 13

## SAFETY DATA SHEET

Evaporation rate (BuAe = 1) : No information available.  
Flammability (solid, gas) : Not applicable.  
Lower flammable limit (% by vol.)  
: 0.6%  
Upper flammable limit (% by vol.)  
: 8%  
Oxidizing properties : None known.  
Explosive properties : Not explosive  
Vapour pressure : 0.22 mm Hg  
Vapour density : 4.5  
Relative density / Specific gravity  
: 0.79g/cm3  
Solubility in water : insoluble.  
Other solubility(ies) : No information available.  
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution  
: Not available.  
Auto-ignition temperature : 230°C (446°F)  
Decomposition temperature : No information available.  
Viscosity : No information available.  
Volatiles (% by weight) : No information available.  
Volatile organic Compounds (VOC's)  
: No information available.  
Absolute pressure of container  
: N/Ap  
Flame projection length : N/Ap  
Other physical/chemical comments  
: None known or reported by the manufacturer.

### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.  
Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions  
: Hazardous polymerization does not occur.  
Conditions to avoid : Ensure adequate ventilation, especially in confined areas. Avoid contact with incompatible materials.  
Incompatible materials : See Section 7 (Handling and Storage) for further details.  
Hazardous decomposition products  
: None known, refer to hazardous combustion products in Section 5.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure:

Routes of entry inhalation : YES  
Routes of entry skin & eye : YES  
Routes of entry ingestion : YES  
Routes of exposure skin absorption  
: NO



Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 7 of 13

## SAFETY DATA SHEET

### Potential Health Effects:

#### Signs and symptoms of short-term (acute) exposure

##### *Sign and symptoms Inhalation*

: May cause respiratory tract irritation. Symptoms may include coughing, choking and wheezing.

##### *Sign and symptoms ingestion*

: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis.

##### *Sign and symptoms skin*

: Causes skin irritation. Symptoms may include redness, edema, drying defatting and cracking of the skin.

##### *Sign and symptoms eyes*

: Direct eye contact may cause slight redness.

#### Potential Chronic Health Effects

: Prolonged exposure can cause redness, swelling, itching, cracking of the skin, dermatitis and sensitization.

#### Mutagenicity

: Not expected to be mutagenic in humans.

#### Carcinogenicity

: This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Contains Cumene. Cumene is classified as possibly carcinogenic by IARC (Group 2B). Ethylbenzene is classified as possibly carcinogenic by IARC (Group 2B) and the ACGIH (Category A3).

#### Reproductive effects & Teratogenicity

: Not expected to have other reproductive effects.

#### Sensitization to material

: Not expected to be a skin or respiratory sensitizer.

#### Specific target organ effects

: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification:

Specific target organ toxicity, single exposure Category 3  
May cause drowsiness and dizziness.

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### Medical conditions aggravated by overexposure

: Pre-existing skin, eye and respiratory disorders.

#### Synergistic materials

: No information available.

#### Toxicological data

: See below for toxicological data on the substance.

Chemical name	LC <sub>50</sub> (4hr)	LD <sub>50</sub>	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Stoddard solvent (mineral spirits)	>5.5 mg/L	>5000 mg/kg	>3000 mg/kg
Hydrotreated light distillate	>6.03 mg/L (aerosol)	>5000 mg/kg	>2000 mg/kg
Trimethylbenzenes (mixed isomers)	18 - 24 mg/L (vapour)	8970 mg/kg	> 3160 mg/kg
Xylenes	6350 ppm (27.6 mg/L) (vapour)	3253 mg/kg	12 180 mg/kg
Cumene	8000 ppm (39 mg/L) (vapour)	2260 mg/kg	10 627 mg/kg
Ethylbenzene	4000 ppm (17.4 mg/L) (vapour)	3500 mg/kg	15 380 mg/kg



Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 8 of 13

**SAFETY DATA SHEET**

Other important toxicological hazards  
: See Section 2 for additional information.

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity** : Toxic to aquatic life with long lasting effects. .  
The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

See the following tables for individual ingredient ecotoxicity data.

**Ecotoxicity data:**

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Stoddard solvent (mineral spirits)	8052-41-3	2.1 - 4.2 mg/L (Bluegill sunfish)	N/Av	None.
Hydrotreated light distillate	64742-47-8	45 mg/L (Fathead minnow)	N/Av	None.
Trimethylbenzenes (mixed isomers)	25551-13-7	7.72 mg/L (Fathead minnow) (Read-across)	N/Av	None.
Xylenes	1330-20-7	8.2 mg/L (Rainbow trout)	N/Av	None.
Cumene	98-82-8	4.8 mg/L (Rainbow trout)	N/Av	None.
Ethylbenzene	100-41-4	4.2 mg/L (Rainbow trout)	1.13 mg/L (30 days) (QSAR)	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Stoddard solvent (mineral spirits)	8052-41-3	0.42-2.3mg/L Water flea	0.1-0.37 mg/L Water flea	1
Hydrotreated light distillate	64742-47-8	N/Av	N/Av	N/Av
Trimethylbenzenes (mixed isomers)	25551-13-7	2.7 mg/L (Daphnia magna) (Read-across)	0.4 mg/L (Read-across)	None.
Xylenes	1330-20-7	3.2 - 9.56 mg/L (Daphnia magna)	N/Av	None.
Cumene	98-82-8	4 mg/L/24hr (Daphnia magna)	N/Av	None.
Ethylbenzene	100-41-4	1.81 mg/L (Daphnia magna)	N/Av	None.



Comet Chemical Company Ltd.  
3463 Thomas Street  
Innisfill, ON, Canada, L9S 3W4  
Telephone: (705) 436 5580

Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 9 of 13

### SAFETY DATA SHEET

Ingredients	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Stoddard solvent (mineral spirits)	8052-41-3	0.58 - 1.2 mg/L/72 hours (Green algae)	0.16 mg/L (Green algae)	1
Hydrotreated light distillate	64742-47-8	N/Av	N/Av	N/Av
Trimethylbenzenes (mixed isomers)	25551-13-7	5.7 mg/L/72hr (Green algae) (Read-across)	0.38 mg/L/72hr (Read-across)	None.
Xylenes	1330-20-7	3.2 - 4.9 mg/L/72hr (Green algae)	N/Av	None.
Cumene	98-82-8	2.6 mg/L/72hr (Green algae)	N/Av	None.
Ethylbenzene	100-41-4	3.6 mg/L/96hr (Green algae)	3.4 mg/L/96hr	None.

**Persistence and degradability**

: Not readily biodegradable.

**Bioaccumulation potential**

: No data is available on the product itself.

Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Stoddard solvent (mineral spirits) (CAS 8052-41-3)	3.16-7.06	N/Av
Hydrotreated light distillate (CAS 64742-47-8)	5.1-8.8	N/Av
Trimethylbenzenes (mixed isomers) (CAS 25551-13-7)	3.63	42 - 328 (common carp)
Xylenes (CAS 1330-20-7)	3.12 - 3.2	50 - 58
Cumene (CAS 98-82-8)	3.55	224 (calculated)
Ethylbenzene (CAS 100-41-4)	3.15	1.1 - 1.5

**Mobility in soil**

: This material has low solubility and floats, and is expected to migrate from water to the land.

**Other Adverse Environmental effects**

: No data is available on the product itself.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Handling for Disposal**

: Handle waste according to recommendations in Section 7. Empty containers may contain hazardous residues.

**Methods of Disposal**

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

**RCRA**

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.



Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 10 of 13

**SAFETY DATA SHEET**

**SECTION 14. TRANSPORT INFORMATION**

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1268	PETROLEUM PRODUCTS, N.O.S.	3	III	 
<b>TDG Additional Information</b>	The environmentally hazardous substance mark must appear on packagings holding more than 5 litres of the material. May be shipped as a Limited Quantity when transported in containers no larger than 5 L (1.3 gallons); in packages not exceeding 30 kg (66 pounds) gross mass.				
49CFR/DOT	UN1268	Petroleum distillates, n.o.s.; or Petroleum products, n.o.s.	3	III	
<b>49CFR/DOT Additional information</b>	Limited Quantity exemption may be used if product is in containers or 5 Litres or less, per Section 173.150 of 49 CFR.				
IMDG	UN1268	PETROLEUM DISTILLATES, N.O.S.; or PETROLEUM PRODUCTS, N.O.S.	3	III	 
<b>IMDG Additional information</b>	Consult the IMDG regulations for exceptions. The environmentally hazardous substance mark must appear on packagings holding more than 5 litres of the material.				
ICAO/IATA	UN1268	Petroleum products, n.o.s.	3	III	 
<b>ICAO/IATA Additional information</b>	Refer to ICAO/IATA Packing Instruction. The environmentally hazardous substance mark must appear on packagings holding more than 5 litres of the material.				

**Special precautions for user** : Appropriate advice on safety must accompany the package. Keep away from heat, sparks and open flame. - No smoking.

**Environmental hazards** : This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

: This information is not available.

**SECTION 15 - REGULATORY INFORMATION**

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:



Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 11 of 13

**SAFETY DATA SHEET**

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity (RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Stoddard solvent (mineral spirits)	8052-41-3	Yes	N/Ap	N/Av	No	N/Ap
Hydrotreated light distillate	64742-47-8	Yes	N/Ap	N/Av	No	N/Ap
Trimethylbenzenes (mixed isomers)	25551-13-7	Yes	None.	None.	No	N/Ap
Xylenes	1330-20-7	Yes	100 lbs / 45.4 kg	None.	Yes	1%
Cumene	98-82-8	Yes	5000 lb/ 2270 kg	None.	Yes	1%
Ethylbenzene	100-41-4	Yes	1000 lb/ 454 kg	None.	Yes	0.1%

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard, Acute Health Hazard Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**US State Right to Know Laws:**

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Stoddard solvent (mineral spirits)	8052-41-3	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Hydrotreated light distillate	64742-47-8	No	N/Ap	No	No	No	No	No	No
Trimethylbenzenes (mixed isomers)	25551-13-7	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Xylenes	1330-20-7	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Cumene	98-82-8	Yes	Cancer	Yes	Yes	Yes	Yes	Yes	Yes
Ethylbenzene	100-41-4	Yes	Cancer	Yes	Yes	Yes	Yes	Yes	Yes

**Canadian Information:**

All ingredients are present on the DSL.  
WHMIS Classification: See Section 2.

**International Information:**

Components listed below are present on the following International Inventory list:



Comet Chemical Company Ltd.  
3463 Thomas Street  
Innisfill, ON, Canada, L9S 3W4  
Telephone: (705) 436 5580

Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 12 of 13

### SAFETY DATA SHEET

Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KEC/KECL	China IECS	NewZealand IOC
Stoddard solvent (mineral spirits)	8052-41-3	232-489-3	Present	Present	(9)-1702; (9)-1702	KE-32199	Present	HSR001498
Hydrotreated light distillate	64742-47-8	265-149-8	Present	Present	(9)-1700	KE-12550	Present	No information available.
Trimethylbenzenes (mixed isomers)	25551-13-7	247-099-9	Present	Present	(3)-7; (3)-3427	KE-34408	Present	May be used as a component in a product covered by a group standard, but is not approved for use as a chemical in its own right.
Xylenes	1330-20-7	215-535-7	Present	Present	(3)-80; (3)-3	KE-35427	Present	HSR000983
Cumene	98-82-8	202-704-5	Present	Present	(3)-32; (3)-22	KE-23957	Present	HSR001184
Ethylbenzene	100-41-4	202-849-4	Present	Present	(3)-80; (3)-28	KE-13532	Present	HSR001151

#### SECTION 16. OTHER INFORMATION

**Legend**

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CNS: Central Nervous System
- DOT: Department of Transportation
- EPA: Environmental Protection Agency
- EINECS: European Inventory of Existing Commercial chemical Substances
- IARC: International Agency for Research on Cancer
- IBC: Intermediate Bulk Container
- IMDG: International Maritime Dangerous Goods
- Inh: Inhalation
- LC: Lethal Concentration
- LD: Lethal Dose
- N/Ap: Not Applicable
- N/Av: Not Available
- NIOSH: National Institute of Occupational Safety and Health
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible exposure limit
- RCRA: Resource Conservation and Recovery Act
- RTECS: Registry of Toxic Effects of Chemical Substances
- SARA: Superfund Amendments and Reauthorization Act
- STEL: Short Term Exposure Limit
- TDG: Canadian Transportation of Dangerous Goods Act & Regulations
- TLV: Threshold Limit Values
- TWA: Time Weighted Average
- WHMIS: Workplace Hazardous Materials Identification System



Comet Chemical Company Ltd.  
3463 Thomas Street  
Innisfill, ON, Canada, L9S 3W4  
Telephone: (705) 436 5580

Mineral Spirits

SDS Preparation Date (mm/dd/yyyy): 07/19/2016

Page 13 of 13

## SAFETY DATA SHEET

**References** :

1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2016
2. International Agency for Research on Cancer Monographs, searched 2017
3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2017(Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists - 2017 version.
6. California Proposition 65 List - 2017 version.
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal,2017.

**Preparation Date (mm/dd/yyyy)**

: 07/19/2016

**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

<p><b>Prepared for:</b> Comet Chemical Company Ltd. 3463 Thomas Street Innisfill, ON L9S 3W4 Information (M-F 8:00-5:00): 705-436-5580 <a href="http://www.cometchemical.com">www.cometchemical.com</a></p>	
<p><b>Prepared by:</b> ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada) <a href="http://www.thecompliancecenter.com">http://www.thecompliancecenter.com</a></p>	

### DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Comet Chemical Company Ltd. and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Comet Chemical Company Ltd. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Comet Chemical Company Ltd.

**END OF DOCUMENT**

# Material Safety Data Sheet

## Transit Super Heavy Duty 10W



### 1. Product and company identification

<b>Product name</b>	: <b>Transit Super Heavy Duty 10W</b>
<b>Material uses</b>	: Heavy duty oil.
<b>Supplier/Manufacturer</b>	: Transit Lubricants Ltd. 5 Hill Street Kitchener, Ontario N2G 4R3 PH: (800) 531-5823 (519) 571-1220 FAX: (519) 579-0286
<b>Date of issue</b>	: 06/15/2010
<b>In Case of emergency</b>	: Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday CHEMTREC: 800-424-9300 24 hrs Everyday

### 2. Hazards Identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Petroleum.
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
<b>Emergency overview</b>	: CAUTION! MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. Slightly irritating to the eyes, skin and respiratory system. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: Slightly irritating to the respiratory system.
<b>Ingestion</b>	: Aspiration hazard if swallowed. Can enter lungs and cause damage.
<b>Skin</b>	: Slightly irritating to the skin.
<b>Eyes</b>	: Slightly irritating to the eyes.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.



## 2 . Hazards identification

**Fertility effects** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

### United States

Name	CAS number	%
Base Oils.	See below.	>10
Zinc Alkyldithiophosphate	68649-42-3	1 - 5

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

## 4 . First aid measures

**Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.



## 5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
  - Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.



## 8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Eyes** : Safety glasses.

**Skin** : Lab coat.

**Respiratory** : A respirator is not needed under normal and intended conditions of product use.

**Hands** : Natural rubber (latex).

**Personal protective equipment (Pictograms)** :



**HMIS Code/Personal protective equipment** : B

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

**Physical state** : Liquid.

**Flash point** : Open cup: 210 to 226°C (410 to 438.8°F) [Cleveland.]

**Color** : Amber. [Dark]

**Odor** : Petroleum.

**Relative density** : 0.88 to 0.896 @ 15.6°C

**Vapor pressure** : <0.13 kPa (<1 mm Hg)

**VOC** : 26.2 % (w/w)

**Solubility** : Insoluble in the following materials: cold water and hot water.



## 10 . Stability and reactivity

- Stability** : The product is stable.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

### Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Base Oils.	Rabbit	>5 g/kg	LD50 Dermal	-
	Rat	>5 g/kg	LD50 Oral	-

**Inhalation** : Slightly irritating to the respiratory system.

**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.

**Skin** : Slightly irritating to the skin.

**Eyes** : Slightly irritating to the eyes.

## 12 . Ecological information

- Environmental effects** : No known significant effects or critical hazards.

## 13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

- AERG** : Not applicable.
- Regulatory information**
- DOT/ IMDG/ IATA** : Not regulated.

## 15 . Regulatory information

### United States

- HCS Classification** : Not regulated.
- U.S. Federal regulations** : TSCA 4(a) final test rules: Diphenylamine  
TSCA 8(a) PAIR: Phenol, (tetrapropenyl) derivs.; Zinc Alkyldithiophosphate;  
Diphenylamine  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006



## 15 . Regulatory information

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.  
**SARA 302/304 emergency planning and notification:** No products were found.  
**SARA 302/304/311/312 hazardous chemicals:** No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** No products were found.

**Clean Water Act (CWA) 307:** Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

### State regulations

- Connecticut Carcinogen Reporting:** None of the components are listed.
- Connecticut Hazardous Material Survey:** None of the components are listed.
- Florida substances:** None of the components are listed.
- Illinois Chemical Safety Act:** None of the components are listed.
- Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
- Louisiana Reporting:** None of the components are listed.
- Louisiana Spill:** None of the components are listed.
- Massachusetts Spill:** None of the components are listed.
- Massachusetts Substances:** The following components are listed: Base Oils.
- Michigan Critical Material:** None of the components are listed.
- Minnesota Hazardous Substances:** None of the components are listed.
- New Jersey Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate
- New Jersey Spill:** None of the components are listed.
- New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
- New York Acutely Hazardous Substances:** None of the components are listed.
- New York Toxic Chemical Release Reporting:** None of the components are listed.
- Pennsylvania RTK Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate
- Rhode Island Hazardous Substances:** None of the components are listed.

### California Prop. 65

- : No products were found.

### International regulations

#### International lists

- : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

### Label requirements

- : MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

### Hazardous Material Information System (U.S.A.)

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

#### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.



## 16 . Other information

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. -  
Materials, UN#, Proper Shipping Names, PG.

Date of issue : 06/15/2010  
Date of previous issue : 10/30/2008  
Version : 2

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Material Safety Data Sheet



## TRANSIT TOUGH 5w-20, 5w-30, 10w-30

### 1 . Product and company identification

**Product name** Transit Tough 5w-20 , 5w-30, 10w-30  
**Material uses** Motor oils.  
**Supplier/Manufacturer** Transit Lubricants Ltd  
5 Hill Street  
Kitchener, Ontario N2G-4R3  
800-531-5823 519-579-5330 FAX 519-579-0286  
**Validation date** 03/15/2009  
**In case of emergency** CHEMTREC: 800-424-9300 24 hrs Everyday

### 2 . Hazards identification

**Physical state** Liquid.  
**Odor** Petroleum.  
**OSHA/HCS status** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
**Emergency overview** WARNING!  
CAUSES EYE AND SKIN IRRITATION.  
Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Routes of entry** Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** No known significant effects or critical hazards.  
**Ingestion** No known significant effects or critical hazards.  
**Skin** Irritating to skin.  
**Eyes** Irritating to eyes.  
**Potential chronic health effects**  
**Chronic effects** No known significant effects or critical hazards.  
**Carcinogenicity** No known significant effects or critical hazards.  
**Mutagenicity** No known significant effects or critical hazards.  
**Teratogenicity** No known significant effects or critical hazards.  
**Developmental effects** No known significant effects or critical hazards.  
**Fertility effects** No known significant effects or critical hazards.  
**Over-exposure signs/symptoms**  
**Inhalation** No specific data.  
**Ingestion** No specific data.  
**Skin** Adverse symptoms may include the following:  
irritation  
redness  
**Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness



## 2 . Hazards identification

Medical conditions aggravated by over-exposure                      None known.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

United States		
Name	CAS number	%
Base Oils.	64741-88-4	>50

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4 . First aid measures

Eye contact	Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
Skin contact	Wash with soap and water. Get medical attention if symptoms occur.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Notes to physician	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5 . Fire-fighting measures

Flammability of the product	May be combustible at high temperature.
Extinguishing media	
Suitable	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Not suitable	None known.
Hazardous thermal decomposition products	No specific data.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).



**6 . Accidental release measures**

**Methods for cleaning up**

**Small spill** Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.

**Large spill** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

**7 . Handling and storage**

**Handling** Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**8 . Exposure controls/personal protection**

	<b>United States</b>
<b>Product name</b>	<b>Exposure limits</b>
Base Oils.	<b>NIOSH REL (United States, 12/2001).</b> STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Mist TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Mist

**Consult local authorities for acceptable exposure limits.**

**Recommended monitoring procedures** If this product contains ingredients with exposure limits, personal, workplace atmosphere of biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Engineering measures** No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protection**

**Eyes** Safety glasses.  
**Skin** Lab coat.

**Respiratory** A respirator is not needed under normal and intended conditions of product



## 8 . Exposure controls/personal protection

Standards

Natural rubber (latex).

Personal protective equipment (Pictograms)



HMS Code/Personal protective equipment  
Environmental exposure controls

B

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

Physical state

Liquid.

Flash point

Open cup: 202 to 221°C (395.6 to 429.8°F) [Cleveland.]

Color

Amber.

Odor

Petroleum.

Relative density

0.87 to 0.882 @ 15.6°C

Vapor pressure

<0.13 kPa (<1 mm Hg)

Solubility

Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

Stability

The product is stable.

Hazardous polymerization

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid

No specific data.

Materials to avoid

Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

Acute toxicity

Inhalation

No known significant effects or critical hazards.

Ingestion

No known significant effects or critical hazards.

Skin

Irritating to skin.

Eyes

Irritating to eyes.

## 12 . Ecological information

Environmental effects

No known significant effects or critical hazards.



### 13 . Disposal considerations

**waste disposal**

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### 14 . Transport information

**AERG**

Not applicable.

**Regulatory information**

DOT/ IMDG/ IATA : Not regulated.

### 15 . Regulatory information

**United States**

**HCS Classification**

**U.S. Federal regulations**

Irritating material

TSCA 8(a) PAIR: Zinc Alkyldithiophosphate

**United States inventory (TSCA 8b):** All components are listed or exempted.

TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** No products were found.

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** No products were found.

**Clean Water Act (CWA) 307:** Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

**State regulations**

**Connecticut Carcinogen Reporting:** None of the components are listed.

**Connecticut Hazardous Material Survey:** None of the components are listed.

**Florida substances:** None of the components are listed.

**Illinois Chemical Safety Act:** None of the components are listed.

**Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.

**Louisiana Reporting:** None of the components are listed.

**Louisiana Spill:** None of the components are listed.

**Massachusetts Spill:** None of the components are listed.

**Massachusetts Substances:** None of the components are listed.

**Michigan Critical Material:** None of the components are listed.

**Minnesota Hazardous Substances:** None of the components are listed.

**New Jersey Hazardous Substances:** None of the components are listed.

**New Jersey Spill:** None of the components are listed.

**New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.

**New York Acutely Hazardous Substances:** None of the components are listed.

**New York Toxic Chemical Release Reporting:** None of the components are listed.

**Pennsylvania RTK Hazardous Substances:** None of the components are listed.



## 15. Regulatory information

California Prop. 65  
International regulations  
International lists

**Rhode Island Hazardous Substances:** None of the components are listed.

No products were found.

This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16. Other information

Label requirements

CAUSES EYE AND SKIN IRRITATION.

Hazardous Material  
Information System (U.S.A.)

HAZARD RATINGS

Health	1
Fire hazard	1
Physical hazard	0
Personal protection	B

4- Extreme  
3- Serious  
2- Moderate  
1- Slight  
0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

National Fire Protection  
Association (U.S.A.)



References

ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

Date of issue

03/15/2009  
1

Version

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Material Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Starplex EP 1, 2

**Product Use:** Grease  
**Product Number(s):** 219579, 277110, 277111

**Company Identification**  
Chevron Canada Limited  
1050 West Pender  
Vancouver, BC V6E 3T4  
Canada  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

\*\*\*\*\*

### **EMERGENCY OVERVIEW**

- HARMFUL TO AQUATIC ORGANISMS. MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

\*\*\*\*\*

### **IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.  
**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.  
**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause

respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	1 - < 2.5 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES:**

**Flashpoint:** (Cleveland Open Cup) 200 °C (392 °F) (Estimated)

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Keep out of the reach of children. Wash thoroughly after handling.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Red

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg Maximum @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 Minimum

**Boiling Point:** 315°C (599°F) Minimum

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Specific Gravity:** 0.9 @ 15.6°C (60.1°F) (Typical)

**Density:** 0.9 (Typical)

**Viscosity:** 18 mm<sup>2</sup>/s @ 100°C (212°F) Minimum

**Evaporation Rate:** No data available

**Odor Threshold:** No data available

**Coefficient of Water/Oil Distribution:** No data available

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

## IMMEDIATE HEALTH EFFECTS

**Eye Irritation:** The eye irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Irritation:** The skin irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for similar materials or product components.

**Acute Dermal Toxicity:** LD50: >5g/kg (rabbit). The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** LD50: >5 g/kg (rat) The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components. For additional information on the acute toxicity of the components, call the technical information center.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.

### ENVIRONMENTAL FATE

**Ready Biodegradability:** This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TDG REGULATIONS

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B  
35=WHMIS IDL

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**WHMIS CLASSIFICATION:**

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations. (See Hazardous Products Act (HPA), R.S.C. 1985, c.H-3,s.2).

**MSDS PREPARATION:**

This Material Safety Data Sheet has been prepared by the Toxicology and Health Risk Assessment Unit, ERTC, P.O. Box 1627, Richmond, CA 94804, (888)676-6183.

**Revision Date:** SEPTEMBER 18, 2014

**SECTION 16 OTHER INFORMATION**

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**LABEL RECOMMENDATION:**

Label Category : GREASE 1 - GRS1

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:  
16

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Multifak OEM Grease EP 2

**Product Use:** Grease  
**Product Number(s):** 293034

**Company Identification**  
Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS:**

---

**Prevention:** Avoid release to the environment.

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 98 %weight
Zinc dialkyldithiophosphate	68649-42-3	0.1 - < 1.5 %weight
Phosphoric acid ester, amine salt	Mixture	0.1 - < 0.5 %weight

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an

electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Silver Shield, Nitrile Rubber, Neoprene.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15 -	ACGIH	5 mg/m3	10 mg/m3	--	--

C50)					
Zinc dialkyldithiophosphate	Not Applicable	--	--	--	--
Phosphoric acid ester, amine salt	Not Applicable	--	--	--	--

Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Amber

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg Maximum @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 Minimum

**Initial Boiling Point:** 260°C (500°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** No data available

**Melting Point:** 166°C (330.8°F) (Min)

**Specific Gravity:** 1 @ 20°C (68°F) / 20°C (68°F) (Estimated)

**Density:** No data available

**Viscosity:** 150 mm<sup>2</sup>/s @ 40°C (104°F) (Typical)

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 200 °C (392 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for similar materials.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for similar materials.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

---

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**

Not applicable



## SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

The following components of this material are found on the regulatory lists indicated.

Zinc dialkyldithiophosphate 06

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

### NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Grease)

## SECTION 16 OTHER INFORMATION

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 15,16  
**Revision Date:** FEBRUARY 17, 2016

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Multigear EP-5 SAE 80W-90, 85W-140

**Product Use:** Automotive Gear Lubricant

**Product Number(s):** 223032, 223033

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15-C50)	Mixture	70 - 99 %wt/wt
Olefin polysulphide	Trade secret	1 - 5 %wt/wt
Phosphoric acid ester, amine salt	Mixture	0.1 - 1.5 %wt/wt

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed** Not Applicable

### SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal

protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15-C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15-C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Olefin polysulphide	Not Applicable	--	--	--	--
Phosphoric acid ester, amine salt	Not Applicable	--	--	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Melting Point:** No data available  
**Specific Gravity:** 1 @ 15°C (59°F) (Typical)  
**Density:** 0.8856 kg/l - 0.9089 kg/l @ 15°C (59°F) (Typical)  
**Viscosity:** 13.70 mm<sup>2</sup>/s @ 100°C (212°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (ASTM D92) 180 °C (356 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available



## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

## SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Gear oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16.

**Revision Date:** MARCH 18, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Multifak EP 0, 1, 2

**Product Use:** Grease

**Product Number(s):** 219571, 219572, 274501, 274502, 274503

#### Company Identification

Chevron Canada Limited

500 - 5th Ave. SW

Calgary, ALBERTA T2P 0L7

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

#### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

#### Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).

### PRECAUTIONARY STATEMENTS:

---

**Prevention:** Avoid release to the environment (P273).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	1 - 5 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and

drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

### Occupational Exposure Limits:

No applicable occupational exposure limits exist for this material or its components. NOTE ON

OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Attention: the data below are typical values and do not constitute a specification.

- Color:** Brown
- Physical State:** Semi-solid
- Odor:** Petroleum odor
- Odor Threshold:** No data available
- pH:** Not Applicable
- Vapor Pressure:** <0.01 mmHg @ 100 °C (212 °F)
- Vapor Density (Air = 1):** >1
- Initial Boiling Point:** 260°C (500°F)
- Solubility:** Soluble in hydrocarbons; insoluble in water
- Freezing Point:** No data available
- Melting Point:** 166°C (330.8°F) (Min)
- Density:** No data available
- Viscosity:** No data available
- Evaporation Rate:** No data available
- Decomposition temperature:** No data available
- Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

- Flammability (solid, gas):** No Data Available
- Flashpoint:** (Cleveland Open Cup) 200 °C (392 °F) (Min)
- Autoignition:** No data available
- Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

- Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
- Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- Incompatibility With Other Materials:** Not applicable
- Hazardous Decomposition Products:** None known (None expected)
- Hazardous Polymerization:** Hazardous polymerization will not occur.
- Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for similar materials.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for similar materials.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

---

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TDG REGULATIONS

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR



## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B  
35=WHMIS IDL

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

## SECTION 16 OTHER INFORMATION

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:  
1-16

**Revision Date:** MARCH 22, 2016

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with

which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



# SAFETY DATA SHEET

## Floor Absorbent - CN

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Floor Absorbent - CN

SDS Number: 1006500

Manufacturer:	Oil-Dri Corporation of America 410 North Michigan Avenue Chicago, IL 60611 +1-312-321-1515
TRANSPORTATION EMERGENCY INFORMATION:	Chemtrec +1-800-424-9300 (US and Canada) +1-703-527-3887 (International - Call Collect)

Product Use: Absorbent

Restrictions On Use: Spontaneous combustion can occur when this product is used to high concentrations of chemicals having a high heat of absorption such as olefins, hydrochloric acid, etc.

## 2. HAZARDS IDENTIFICATION

GHS Classification:

Health: Specific Target Organ Toxicity – Single Exposure Category 3

Environmental: Not Hazardous

Physical: Not Hazardous

GHS Labeling:

Pictogram:



Exclamation mark

**WARNING!**

H335 May cause respiratory irritation.

**Prevention:** P261 Avoid breathing dust

P271 Use only outdoors or in a well-ventilated area.

**Response:** P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Storage:** Store in a dry area.

**Disposal:** P501 Dispose of contents/container in accordance with all local and national regulations.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No./ EINECS No	%
Fullers Earth (Attapulgate-type clay)	8031-18-3	10-100%
Proprietary Ingredient	Proprietary	10-100%

**4. FIRST AID MEASURES**

**Inhalation:** Move to fresh air. If irritation or other symptoms occurs, get medical attention.

**Skin contact:** No first aid should be needed.

**Eye contact:** Immediately flush eyes with cool running water, lifting upper and lower lids. If irritation persists or for foreign body in the eye, get medical attention.

**Ingestion:** If used material is ingested, get medical attention due to possibility of chemical contamination. If large amount of unused material is swallowed, get immediate medical attention.

**Most Important symptoms and effects, both acute and delayed:** Eye contact may cause mechanical irritation and possible eye injury. May cause mechanical skin and respiratory irritation.

**Indication of any immediate medical attention and special treatment needed:** No immediate medical attention is required.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Use media that is appropriate for surrounding fire; unused product is not combustible.

**Specific Hazards Arising from the Chemical:** None for unused product.

**Special Protective Equipment and Precautions for Fire-fighters:** Firefighters should always wear self-contained breathing apparatus and full protective clothing for fires involving chemicals or in confined spaces.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment, and Emergency Procedures:** No special equipment is generally required for spill clean-up. For dusty conditions, an approved respiratory may be needed. Refer to Section 8 for additional information.

**Environmental Hazards:** Report releases as required by local and federal regulations.

**Methods and Materials for Containment and Cleaning Up:** Sweep up and collect unused material for re-use or disposal. For dusty conditions, an approved respiratory may be needed. Refer to Section 8 for additional information.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after use. If clothing becomes dusty, launder before re-use. Use only with adequate ventilation. Minimize the generation and accumulation of dust. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping, drop ceilings, ductwork, etc. free from settled dust. Dry powders can build static electricity charges when subjected to friction of transfer and in mixing operations.

**Conditions for Safe Storage, including any Incompatibilities:** Store in a dry area. Keep away from turpentine, hydrofluoric acid, vegetable oil, and other unsaturated organic compounds (such as fish oil), as this may generate heat and/or fire.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure limit(s)

Chemical Name	Exposure limit(s)
Fullers Earth (Attapulgite-type clay)	15 mg/m <sup>3</sup> (total dust) TWA OSHA PEL 5 mg/m <sup>3</sup> (respirable dust) TWA OSHA PEL
Proprietary Ingredient	15 mg/m <sup>3</sup> (total dust) TWA OSHA PEL 5 mg/m <sup>3</sup> (respirable dust) TWA OSHA PEL

**Appropriate Engineering Controls:** General ventilation is adequate for normal use. If handling produces airborne dust, local exhaust ventilation may be needed.

**Individual Protection Measures, such as Personal Protective Equipment:**

**Eye Protection:** Safety glasses or goggles if needed to prevent eye contact.

**Skin Protection:** None required for normal use.

**Respiratory Protection:** None required for normal use. For operations where the dust concentration may be excessive, a dust respirator may be used. Follow OSHA regulations in the selection and use of respiratory protection.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Property	Value
Appearance:	White to tan granules
Odor Threshold:	Not applicable.
Boiling point/range	Not applicable.
Melting point/range	Not available
Relative density	2.3-2.37
Vapor pressure	Not applicable.
Vapor density (air=1)	Not applicable.
Solubility	Partially soluble
pH	Not applicable.
Partition coefficient (n-octanol/water):	Not available
Evaporation Rate (Butyl acetate=1)	Not applicable.
Viscosity:	Not applicable.
Volatile Organic Carbon Compounds (VOC) (g/L)	Not available
Flashpoint:	Not applicable.
Flammable Limits in Air % by Volume:	LEL (Lower): Not applicable. UEL (Upper): Not applicable.
Autoignition temperature:	Not available
Decomposition temperature:	Not available
Flammability (solid, gas):	Not flammable

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not normally reactive.

**Chemical Stability:** Stable

**Possibility of Hazardous Reactions:** Spontaneous combustion can occur when this product is used to high concentrations of chemicals having a high heat of absorption such as olefins, hydrochloric acid, etc.

**Conditions to Avoid:** None.

**Incompatible Materials:** Turpentine, hydrofluoric acid, vegetable oil, fish oil, unsaturated organic compounds.

**Hazardous Decomposition Products:** None.

## 11. TOXICOLOGICAL INFORMATION

**Potential Health Effects:**

**Acute Hazards:**

**Inhalation:** Inhalation of dust may cause irritation to the eyes, nose, throat and respiratory tract.

**Skin contact:** No known hazard.

**Eye contact:** Contact may cause mechanical, abrasive irritation with possible injury.

**Ingestion:** No known hazard.

**Chronic Effects:** Inhalation of excessive concentrations of any dust, including this material, may lead to lung irritation and/or injury.

**Carcinogenicity Listing:** None.

**Acute Toxicity Values:** None.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** No data available for the product. No adverse effects on the environment are expected.

**Persistence and Degradability:** Fuller's Earth is non-degradable.

**Bioaccumulative Potential:** Not bioaccumulative.

**Mobility in Soil:** No data available

**Other Adverse Effects:** None currently known.

### 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental Regulations. Unused material is suitable for disposal in sanitary landfill. Used material may be subject to regulation, depending on the nature of the material absorbed. Check with appropriate regulatory authority for used material containing hazardous waste.

### 14. TRANSPORT INFORMATION

US DOT Shipping Description: Not regulated  
IATA Shipping Description (Air): Not regulated  
Proper Shipping Name: Not regulated  
UN Number: Not applicable.  
Packing Group: Not applicable.  
Labels Required: None.

### 15. REGULATORY INFORMATION

US Regulations

SARA 311/312 Hazard Categories: Chronic Health

SARA 313 This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under the SARA Section 313 (40 CFR 372): None.

SARA 302 Listed Chemicals: None.

CERCLA: This product is not subject to CERCLA release reporting. Many states have more stringent reporting requirements. Report releases as required by local and state regulations.

California Proposition 65: None.

EPA Toxic Substances Control Act (TSCA): All of the components of this product are listed on the TSCA Inventory or exempted from TSCA.

International Regulations:

EU REACH: Contact Oil Dri for information on REACH status.

Japan MITI: No data available

AICS: No data available

**16. OTHER INFORMATION**

Date Prepared: 5/29/2015

Revision Summary: May 29, 2015 - Conversion to Hazcom 2012 classification and labeling and format.

HMIS Rating: Health 0\* Fire 0 Reactivity 0

0 = Minimal Hazard, 1 = Slight Hazard, 2 = Moderate Hazard, 3 = Serious Hazard, 4 = Severe Hazard

The information contained herein is true and correct to the best of Oil-Dri Corporation of America's knowledge. However, no warranty, expressed or implied, is made. Nothing herein should be interpreted as a recommendation to infringe existing patents or violate any laws or regulations. Final determination of the suitability of the material is the sole responsibility of the user.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Chevron Lubricating Oil FM 32, 46, 68

**Product Use:** Food grade lubricant

**Product Number(s):** 232103, 255110, 255150

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

Revision Number: 15

1 of 9

Chevron Lubricating Oil FM 32, 46, 68  
SDS : 6850CAN

Revision Date: MARCH 10, 2016

COMPONENTS	CAS NUMBER	AMOUNT
White mineral oil	8042-47-5	70 - 99 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank

cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
White mineral oil	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and

Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Colorless

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg (Estimated) @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 (Estimated)

**Initial Boiling Point:** 315°C (599°F) (Estimated)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Density:** 0.8670 kg/l @ 15.6°C (60.1°F) (Typical)

**Viscosity:** 61.20 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 192 °C (378 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual

components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

---

01-1=IARC Group 1  
 01-2A=IARC Group 2A  
 01-2B=IARC Group 2B  
 35=WHMIS IDL

The following components of this material are found on the regulatory lists indicated.

White mineral oil 35

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** MARCH 10, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may**

suggest modifications of the information, we do not assume any responsibility for the results of its use.  
This information is furnished upon condition that the person receiving it shall make his own  
determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Rando HD 32, 46, 68

**Product Use:** Hydraulic Oil

**Product Number(s):** 254612, 254613, 254614, 273277, 273278, 273279

#### Company Identification

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

#### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

#### Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

Revision Number: 5

1 of 9

Rando HD 32, 46, 68

Revision Date: FEBRUARY 05, 2016

SDS : 23557

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank

cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and

Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Colorless to yellow

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbon solvents; insoluble in water.

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Density:** 0.87 kg/l @ 15°C (59°F) (Typical)

**Viscosity:** 28.80 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Coefficient of Therm. Expansion / °F:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 170 °C (338 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:  
1 - 16

**Revision Date:** FEBRUARY 05, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may**

suggest modifications of the information, we do not assume any responsibility for the results of its use.  
This information is furnished upon condition that the person receiving it shall make his own  
determination of the suitability of the material for his particular purpose.

# SAFETY DATA SHEET

## THERMO GUARD® ANTIFREEZE

### SECTION 1: PRODUCT INFORMATION

**Product Identifier:** ThermoGuard Antifreeze (All)  
**Recommended Use:** Antifreeze/Coolant  
**Recommended Restrictions:** None known.  
**Manufacturer Information:** Jack Smith Fuels Ltd.  
351 Queen Street North, Bldg F  
Tilbury, ON N0P 2L0  
Phone: 1-519-682-0111  
Emergency Phone: 1-800-265-2120

**Supplier:** See above.

### SECTION 2: HAZARD IDENTIFICATION

**Classification:**  
**Category 2:** Target organ toxicant (repeated exposure)  
**Category 2:** Reproductive toxicant (developmental)  
**Category 5:** Acute oral toxicant



**Signal Word:** Warning  
**Health Hazards:** Suspected of damaging the unborn child (H361D)  
May be harmful if swallowed (H303)  
**Target Organs:** May cause damage to organs (Kidney) through prolonged or repeated exposure (H373)

#### PRECAUTIONARY STATEMENTS:

**Prevention:** Obtain special instructions before use (P201)  
Do not handle until all safety precautions have been read and understood (P202)  
Do not breathe dust/fume/gas/mist/vapours/spray (P260)  
Wear protective gloves/protective clothing/eye protection/face protection (P280)

**Response:** Call a POISON CENTRE or doctor/physician if you feel unwell (P312)  
If exposed or concerned: Get medical advice/attention (P308+P313)

**Store:** Store locked up (P405)

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

<b>Ethylene Glycol:</b>	<b>CAS #:</b>	107-21-1	<b>Concentration:</b>	35 – 95%
<b>Sodium Nitrite:</b>	<b>CAS #:</b>	7632-00-0	<b>Concentration:</b>	<18%
<b>Potassium Hydroxide:</b>	<b>CAS #:</b>	1310-58-3	<b>Concentration:</b>	<2%

### SECTION 4. FIRST AID MEASURES

<b>Eye:</b>	No specific first aid measures are required. As a precaution, remove contact lenses if worn, and flush eyes with water.
<b>Skin:</b>	No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
<b>Ingestion:</b>	If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.
<b>Inhalation:</b>	No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

### SECTION 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** Dry Chemical, CO2, AFFF Foam or alcohol resistant foam.

#### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Sodium.

**Stability:** Material is stable under normal conditions.

**Stability Conditions to Avoid:** Heat, Sparks, Open Flames and other Ignition Sources.

**Materials to Avoid:** Strong Oxidizers, Acids, Alkalies.

**Hazardous Decomposition Products:** Material does not decompose at ambient temperatures.

**Hazardous Polymerization:** Will Not Occur

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure

Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7. HANDLING AND STORAGE

- General Handling Information:** Do not taste or swallow antifreeze or solution. Keep out of reach of reach of children and animals.
- Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Do not breathe vapour or fumes. Wash thoroughly after handling.
- Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating and electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations? And use appropriate mitigating procedures.
- Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty container retain product residue (solid, liquid, and/or vapour) and can be dangerous. Do not cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.
- General Storage Information:** Do not store in open or unlabeled containers.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- General Considerations:** Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.
- Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits. Use in well-ventilated area.
- Personal Protective Equipment:**
- Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety

practice.

**Skin Protection:**

No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Natural rubber, Neoprene, Nitrile Rubber, Polyvinyl Chloride (PVC or Vinyl).

**Respiratory Protection:**

Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapours, Dusts and Mists. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

**Component:** Ethylene Glycol

**Agency:** ACGIH

**Ceiling:** 100 mg/m<sup>3</sup>

Consult local authorities for appropriate values.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid
<b>Form:</b>	Clear
<b>Odour:</b>	Characteristic
<b>Odour Threshold:</b>	N/D
<b>Relative Density (at 15°C)</b>	1.07 – 1.08
<b>Flash Point:</b>	121°C (TOC)
<b>Boiling Point / Range:</b>	132°C (270°F)
<b>Vapour Density (Air=1):</b>	2.1 at 101 kPa
<b>Vapour Pressure:</b>	0.008kPa (0.06 mm Hg) at 20°C
<b>Evaporation Rate (N-Butyl Acetate =1)</b>	0.01
<b>pH:</b>	9 – 11
<b>Log Pow (n-Octanol/Water Partition Coefficient):</b>	< 2
<b>Solubility in Water:</b>	Complete
<b>Viscosity:</b>	[N/D at 40°C]

**SECTION 10. STABILITY AND REACTIVITY**

<b>Reactivity:</b>	May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
<b>Chemical Stability:</b>	This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Hazardous Polymerization:</b>	Hazardous polymerization will not occur.
<b>Incompatibility With Other Products:</b>	Not applicable
<b>Hazardous Decomposition Products:</b>	Keytones (Elevated temperatures), Aldehydes (Elevated temperatures). Oxides of sodium and nitroge

## SECTION 11. TOXICOLOGICAL INFORMATION

### IMMEDIATE HEALTH EFFECTS

<b>Eye:</b>	Not expected to cause prolonged or significant eye irritation.
<b>Eye Irritation:</b>	The eye irritation hazard is based on evaluation of data for product components.
<b>Skin:</b>	Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.
<b>Acute Dermal Toxicity:</b>	The acute dermal toxicity hazard is based on evaluation of data for product components.
<b>Skin Irritation:</b>	The skin irritation hazard is based on evaluation of data for product components.
<b>Skin Sensitization:</b>	The skin sensitization hazard is based on evaluation of data for similar materials.
<b>Ingestion:</b>	May be harmful if swallowed.
<b>Acute Oral Toxicity:</b>	The acute oral toxicity hazard is based on evaluation of data for product components.
<b>Inhalation:</b>	Not expected to be harmful if inhaled. Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.
<b>Acute Inhalation Toxicity:</b>	The acute inhalation toxicity hazard is based on evaluation of data for product components.
<b>Acute Toxicity Estimate:</b>	Not Determined

### DELAYED OR OTHER HEALTH EFFECTS:

<b>Reproduction and Birth Defects:</b>	Contains material that may cause harm to the unborn child if swallowed based on animal data.
<b>Target Organs:</b>	Contains material that may cause damage to the following organ(s) following repeated inhalation at concentrations above the recommended exposure limit: Kidney Risk depends on duration and level of exposure.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty in breathing and decreased urine output. When EG was heated above the boiling point of water, vapours formed which reportedly caused unconsciousness, increased lymphocyte count, and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.

Ethylene Glycol:  
ACGIH 100 mg/m3

Sodium Nitrite:  
Skin Not Available  
Eyes Not Available  
Respiratory Not Available  
Ingestion LD50 Oral - rat - 1,267 mg/kg  
LD50 Oral - rabbit - 2,608 mg/kg  
LD50 Oral - child - 22.5 mg/kg  
Other LD50 Intravenous - mouse - 175 mg/kg

Potassium Hydroxide:  
Skin Not Available  
Eyes Not Available  
Respiratory Not Available  
Ingestion LD50 - Rat - 273 mg/kg

### **CARCINOGENICITY**

**IARC** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
**ACGIH** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.  
**NTP** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.  
**OSHA** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

## **SECTION 12. ECOLOGICAL INFORMATION**

### **EXOTOXICITY**

This material is not expected to be harmful to aquatic organisms.  
The product has not been tested. The statement has been derived from products of a similar structure and composition.

### **MOBILITY**

No data available.

### **PERSISTENCE AND DEGRADABILITY**

This material is expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.  
The product has not been tested. The statement has been derived from the properties of the individual components.

### **POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available  
Octanol/Water Partition Coefficient: No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria if a hazardous waste as defined by international, country, or local laws and regulations.

## SECTION 14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g. technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: PROPRIETARY ANTIFREEZE PREPARATION IN NON-BULK PACKAGING; NOT REGULATED FOR TRANSPORT UNDER 49 CFR.

Additional Information: Bulk shipments containing a reportable quantity (RQ, 5000 pounds or more) of ethylene glycol in a single packaging are transported as hazardous material. The shipping description is: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHYLENE GLYCOL CONTAINS BITTERANT), 9, III, RQ (ETHYLENE GLYCOL)

IMO/IMDG Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE.

ICAO/IATA Shipping Description: Anti-freeze Preparations, Proprietary; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO.

## SECTION 15. REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

## SECTION 16. OTHER INFORMATION

**Revision Date:** January 27, 2022

**Prepared By:** Jack Smith Fuels Ltd., 351 Queens St. N., Tilbury, ON, N0P 2L0.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use.

# SAFETY DATA SHEET

## THERMO GUARD® ANTIFREEZE

### SECTION 1: PRODUCT INFORMATION

**Product Identifier:** ThermoGuard Antifreeze (All)  
**Recommended Use:** Antifreeze/Coolant  
**Recommended Restrictions:** None known.  
**Manufacturer Information:** Jack Smith Fuels Ltd.  
351 Queen Street North, Bldg F  
Tilbury, ON N0P 2L0  
Phone: 1-519-682-0111  
Emergency Phone: 1-800-265-2120

**Supplier:** See above.

### SECTION 2: HAZARD IDENTIFICATION

**Classification:**  
**Category 2:** Target organ toxicant (repeated exposure)  
**Category 2:** Reproductive toxicant (developmental)  
**Category 5:** Acute oral toxicant



**Signal Word:** Warning  
**Health Hazards:** Suspected of damaging the unborn child (H361D)  
May be harmful if swallowed (H303)  
**Target Organs:** May cause damage to organs (Kidney) through prolonged or repeated exposure (H373)

#### PRECAUTIONARY STATEMENTS:

**Prevention:** Obtain special instructions before use (P201)  
Do not handle until all safety precautions have been read and understood (P202)  
Do not breathe dust/fume/gas/mist/vapours/spray (P260)  
Wear protective gloves/protective clothing/eye protection/face protection (P280)

**Response:** Call a POISON CENTRE or doctor/physician if you feel unwell (P312)  
If exposed or concerned: Get medical advice/attention (P308+P313)

**Store:** Store locked up (P405)

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

<b>Ethylene Glycol:</b>	<b>CAS #:</b>	107-21-1	<b>Concentration:</b>	35 – 95%
<b>Sodium Nitrite:</b>	<b>CAS #:</b>	7632-00-0	<b>Concentration:</b>	<18%
<b>Potassium Hydroxide:</b>	<b>CAS #:</b>	1310-58-3	<b>Concentration:</b>	<2%

### SECTION 4. FIRST AID MEASURES

<b>Eye:</b>	No specific first aid measures are required. As a precaution, remove contact lenses if worn, and flush eyes with water.
<b>Skin:</b>	No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
<b>Ingestion:</b>	If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.
<b>Inhalation:</b>	No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

### SECTION 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** Dry Chemical, CO2, AFFF Foam or alcohol resistant foam.

#### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Sodium.

**Stability:** Material is stable under normal conditions.

**Stability Conditions to Avoid:** Heat, Sparks, Open Flames and other Ignition Sources.

**Materials to Avoid:** Strong Oxidizers, Acids, Alkalies.

**Hazardous Decomposition Products:** Material does not decompose at ambient temperatures.

**Hazardous Polymerization:** Will Not Occur

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure

Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7. HANDLING AND STORAGE

- General Handling Information:** Do not taste or swallow antifreeze or solution. Keep out of reach of children and animals.
- Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Do not breathe vapour or fumes. Wash thoroughly after handling.
- Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating and electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations? And use appropriate mitigating procedures.
- Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty container retain product residue (solid, liquid, and/or vapour) and can be dangerous. Do not cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.
- General Storage Information:** Do not store in open or unlabeled containers.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- General Considerations:** Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.
- Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits. Use in well-ventilated area.
- Personal Protective Equipment:**
- Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety

practice.

**Skin Protection:**

No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Natural rubber, Neoprene, Nitrile Rubber, Polyvinyl Chloride (PVC or Vinyl).

**Respiratory Protection:**

Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapours, Dusts and Mists. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

**Component:** Ethylene Glycol

**Agency:** ACGIH

**Ceiling:** 100 mg/m<sup>3</sup>

Consult local authorities for appropriate values.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid
<b>Form:</b>	Clear
<b>Odour:</b>	Characteristic
<b>Odour Threshold:</b>	N/D
<b>Relative Density (at 15°C)</b>	1.07 – 1.08
<b>Flash Point:</b>	121°C (TOC)
<b>Boiling Point / Range:</b>	132°C (270°F)
<b>Vapour Density (Air=1):</b>	2.1 at 101 kPa
<b>Vapour Pressure:</b>	0.008kPa (0.06 mm Hg) at 20°C
<b>Evaporation Rate (N-Butyl Acetate =1)</b>	0.01
<b>pH:</b>	9 – 11
<b>Log Pow (n-Octanol/Water Partition Coefficient):</b>	< 2
<b>Solubility in Water:</b>	Complete
<b>Viscosity:</b>	[N/D at 40°C]

**SECTION 10. STABILITY AND REACTIVITY**

<b>Reactivity:</b>	May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
<b>Chemical Stability:</b>	This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Hazardous Polymerization:</b>	Hazardous polymerization will not occur.
<b>Incompatibility With Other Products:</b>	Not applicable
<b>Hazardous Decomposition Products:</b>	Keytones (Elevated temperatures), Aldehydes (Elevated temperatures). Oxides of sodium and nitroge

## SECTION 11. TOXICOLOGICAL INFORMATION

### IMMEDIATE HEALTH EFFECTS

- Eye:** Not expected to cause prolonged or significant eye irritation.
- Eye Irritation:** The eye irritation hazard is based on evaluation of data for product components.
- Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.
- Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.
- Skin Irritation:** The skin irritation hazard is based on evaluation of data for product components.
- Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for similar materials.
- Ingestion:** May be harmful if swallowed.
- Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.
- Inhalation:** Not expected to be harmful if inhaled. Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.
- Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.
- Acute Toxicity Estimate:** Not Determined

### DELAYED OR OTHER HEALTH EFFECTS:

- Reproduction and Birth Defects:** Contains material that may cause harm to the unborn child if swallowed based on animal data.
- Target Organs:** Contains material that may cause damage to the following organ(s) following repeated inhalation at concentrations above the recommended exposure limit: Kidney  
Risk depends on duration and level of exposure.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains ethylene glycol (EG). The toxicity of EG via inhalation of skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty in breathing and decreased urine output. When EG was heated above the boiling point of water, vapours formed which reportedly caused unconsciousness, increased lymphocyte count, and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.

Ethylene Glycol:  
ACGIH 100 mg/m3

Sodium Nitrite:  
Skin Not Available  
Eyes Not Available  
Respiratory Not Available  
Ingestion LD50 Oral - rat - 1,267 mg/kg  
LD50 Oral - rabbit - 2,608 mg/kg  
LD50 Oral - child - 22.5 mg/kg  
Other LD50 Intravenous - mouse - 175 mg/kg

Potassium Hydroxide:  
Skin Not Available  
Eyes Not Available  
Respiratory Not Available  
Ingestion LD50 - Rat - 273 mg/kg

### **CARCINOGENICITY**

**IARC** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
**ACGIH** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.  
**NTP** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.  
**OSHA** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

## **SECTION 12. ECOLOGICAL INFORMATION**

### **EXOTOXICITY**

This material is not expected to be harmful to aquatic organisms.  
The product has not been tested. The statement has been derived from products of a similar structure and composition.

### **MOBILITY**

No data available.

### **PERSISTENCE AND DEGRADABILITY**

This material is expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.  
The product has not been tested. The statement has been derived from the properties of the individual components.

### **POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available  
Octanol/Water Partition Coefficient: No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria if a hazardous waste as defined by international, country, or local laws and regulations.

## SECTION 14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g. technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: PROPRIETARY ANTIFREEZE PREPARATION IN NON-BULK PACKAGING; NOT REGULATED FOR TRANSPORT UNDER 49 CFR.

Additional Information: Bulk shipments containing a reportable quantity (RQ, 5000 pounds or more) of ethylene glycol in a single packaging are transported as hazardous material. The shipping description is: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHYLENE GLYCOL CONTAINS BITTERANT), 9, III, RQ (ETHYLENE GLYCOL)

IMO/IMDG Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE.

ICAO/IATA Shipping Description: Anti-freeze Preparations, Proprietary; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO.

## SECTION 15. REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

## SECTION 16. OTHER INFORMATION

**Revision Date:** January 27, 2016

**Prepared By:** Jack Smith Fuels Ltd., 351 Queens St. N., Tilbury, ON, N0P 2L0.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use.

## TRANSIT HD SYNBLEND 10W30 CK-4 PRODUCT INFORMATION

**TRANSIT HD SYNBLEND 10W30 CK-4 OVERVIEW:** TRANSIT HD SYNBLEND 10W30 CK-4 is an ultra-premium, synthetic blend product formulated to meet or exceed the latest API diesel engine oil specifications as well as the warranty and performance requirements of most diesel engine manufacturers.

**FEATURES & BENEFITS:** While specifically designed for use in model year 2017 and newer heavy-duty diesel engines in high output service, TRANSIT HD SYNBLEND 10W30 CK-4 is fully backwards compatible to engines requiring any API C service class and provides robust protection, increased oxidation stability and superior shear stability over any previous API category to date.

**TRANSIT HD SYNBLEND 10W30 CK-4:** Can be used with complete success in extreme applications involving any vehicle or diesel engine where an API CK-4 or earlier C class oil is specified and a fuel economy savings over a 15W-40 viscosity is desired. Field studies have shown a 1% or more fuel savings by switching from a 15W-40 to a 10W-30 engine oil.

**APPLICATIONS:** Overbuilt using premium synthetic and conventional base stocks, the latest additive technology, and an exceptionally shear stable, star structure viscosity modifier as its foundation, TRANSIT HD SYNBLEND 10W30 CK-4 has been engineered to withstand the rigors of all severe service duty categories, including off-road, long haul over-the-road, as well as start-stop short-haul line service.

**SPECIFICATIONS:** API CK-4, CJ-4, CI-4, CI-4 PLUS, CH-4/SN • ACEA E9-16, E7-04 • Caterpillar ECF-3, ECF-2, ECF-1a • Cummins CES 20086, 20081, 20077 • Detroit Diesel 93K222, 93K218 • Deutz DQC III-10 LA • Ford WSS-M2C171-F1 • JASO DH-2 • Mack EOS-4.5, EO-O Premium Plus, EO-N Premium Plus • MAN 3575 • Mercedes-Benz 228.31 • MTU MTL 5044 Type 2.1 • Renault RLD-4, RLD-3 • Volvo VDS-4.5 VDS-4, VDS-3, VDS-4, VDS-3

10W30 HDMO	TRANSIT HD SYNBLEND 10W30 CK-4	DELO® 400 XLE SAE 10W-30 (Synthetic Technology)	TOTAL RUBIA TIR 7900 FE 10W-30 SYNBLD	Shell ROTELLA® T5 10W-30	Petro -Canada DURON SHP 10W30	Mobil DELVAC 1300 SUPER 10W-30 SEMI-SYN	KLONDIKE SAE 10W-30 CK-4 SYNTHETIC BLEND
Viscosity at 100C	12.02	11.9	11.8	12	12	12	12
Viscosity at 40C	83.3	81	77.5	83	80.1	82	79.6
Viscosity Index	142	142	146	141	145	N/A	148
Flash Point C	230	234	230	225	220	218	225
Pour Point C	-40	-46/-51	-42	-42	-45/-49	-39	-46
Sulfated Ash (%)	1	1	.96	1	1	0.9	0.99
Calcium (%)	0.105	N/A	N/A	N/A	N/A	N/A	0.105
Phosphorus (%)	0.115	0.08	N/A	N/A	N/A	N/A	0.115
Zinc (%)	0.127	0.086	N/A	N/A	N/A	N/A	0.127
Base Number	N/A	10	8.5	10.1	10	9.6	10
DEUTZ DQC II-10 LA	Y	Y		Y		Y	Y
Detroit Fluids Spec 93K218	Y	Y	Y	Y	Y	Y	Y
Detroit Fluids Spec 93K222	Y	Y		Y	Y	Y	Y
Mack EO-O Premium Plus	Y	Y	Y	Y	Y	Y	Y
Mack EOS-4.5	Y	Y		Y	Y	Y	Y
MAN M 3575	Y	Y	Y	Y		Y	Y
MB 228.31	Y	Y	Y	Y	Y		Y
Renault Trucks RLD-3	Y	Y	Y		Y	Y	Y
Volvo-VDS-4	Y	Y	Y	Y	Y	Y	Y
Volvo VDS-4.5	Y	Y		Y	Y	Y	Y
API CK4	Y	Y		Y	Y	Y	Y
Jaso DH-2-17	Y	Y		Y	Y	Y	Y
ACEA E7	Y	Y		Y	Y	Y	Y
ACEA E9	Y	Y		Y	Y	Y	Y
Caterpillar ECF-3	Y	Y		Y	Y	Y	Y
Cummins CES 20081	Y	Y	Y	Y	Y	Y	Y
Cummins CES 20086	Y	Y		Y	Y	Y	Y
Isuzu DEO						Y	
MAN M 3275-1	Y	Y		Y			Y
MTU Category 2.1	Y	Y		Y			Y
Ford WSS-M2C171-F1	Y			Y	Y		Y
GM 9985930					Y		

\*N/A: Information not available

## WINDSHIELD WASH -40°C

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	WINDSHIELD WASH -40°C
<b>Other Means of Identification</b>	15-204, 15-204EXP, 15-204LAU, 15-204OEM, 15-204OEMPPK, 15-204OEMPRO, 15-204SUPR, 15-204SUPR-S, 15-215, 15-215OEM, 15-215PAC, 15-215SUPR, 15-216PAC, 15-403SLV, 15-403SLV-PRO, 15-404, 15-408, 25-209, 25-209-1000, 25-209P-1000, 25-209PRMX-1K, 25-219, 35-204ACK, 35-204APR, 35-204BMR, 35-204CERT, 35-204CHR, 35-204CK, 35-204CQ, 35-204CT, 35-204FLS, 35-204H, 35-204LAU, 35-204LUB, 35-204M, 35-204MAC, 35-204MMNO, 35-204PEP, 35-204PM, 35-204QS, 35-204QS-PRO, 35-204QS-PRO1, 35-204RP, 35-204SEL, 35-204SO, 35-204SO-W, 35-204TRP, 35-204U/N, 35-204VIS, 35-204VISEXP, 35-204VOL, 35-204VW, 35-207ARM, 35-207PRES, 35-208SO, 35-209ACK, 35-209ACK-1000, 35-209CHR, 35-209OPW-1K, 35-209QSOPW-1K, 35-209U/N, 35-215ACK, 35-215AS, 35-215AX, 35-215CERT, 35-215H, 35-215LD, 35-215LIFE, 35-215TSC, 35-215UFA, 35-215WM, 35-216WM, 35-219ACK, 35-219ACK-1000, 35-306GP, 35-309OPW-1K, 35-404BMW, 35-404C, 35-404CT, 35-404E, 35-404LIFE, 35-404MER, 35-404PC, 35-404QS, 35-404REF, 35-404STP, 35-404U/N, 35-404UFA, 35-405C, 35-405TSC, 35-408HUS, 35-408SL,, 85-204, 85-209, 85-209-40, BULK-15204, BULK-TRUCK25209, 40W378, 40W205, 40W1000, 35W378, 35W205, 35W1000, BULK-15049, 35-209TRP, 35-405STP, 35-404CQ, BULK-15204PINK, 35-408COA, 35-204WM, 11-WWF-PI, 35-204ARM-PRO, 35-207ARM-PR
<b>Other Identification</b>	WINDSHIELD WASH -45°C, WINDSHIELD WASH -35°C, Tough Guy Windshield WASH -35°C, Tough Guy Windshield WASH -45°C, Tough Guy Windshield WASH -40°C, Drilling Fluid, Turbo Power
<b>Recommended Use</b>	Please refer to Product label.
<b>Restrictions on Use</b>	None known.
<b>Manufacturer/Supplier Identifier</b>	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
<b>Emergency Phone No.</b>	CANUTEC, 613-996-6666, 24 Hours
<b>SDS No.</b>	1775

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Flammable liquid - Category 3; Acute toxicity (Oral) - Category 3; Skin irritation - Category 3; Eye irritation - Category 2B; Reproductive toxicity - Effects on or via lactation; Specific target organ toxicity (single exposure) - Category 1

#### Label Elements



Signal Word:  
Danger

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1  
Date of Preparation: September 06, 2017  
Date of Last Revision: January 15, 2019

SDS No.: 1775

Page 01 of 10

Hazard Statement(s):

- H226 Flammable liquid and vapour.
- H301 Toxic if swallowed.
- H316 Causes mild skin irritation.
- H320 Causes eye irritation.
- H362 May cause harm to breast-fed children.
- H370 Causes damage to organs.

Precautionary Statement(s):

Prevention:

- P201 Obtain special instructions before use.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof electrical, ventilating, and lighting equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe fume, mist, vapours, spray.
- P264 Wash hands and skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P263 Avoid contact during pregnancy and while nursing.
- P280 Wear protective gloves, eye protection.

Response:

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
- P330 Rinse mouth.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P308 + P311 If exposed or concerned: Call a POISON CENTRE or doctor.
- P332 + P313 If skin irritation occurs: Get medical advice or attention.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P307 + P311 If exposed: Call a POISON CENTRE or doctor.
- P337 + P313 If eye irritation persists: Get medical advice or attention.
- P370 + P378 In case of fire: Use appropriate foam, carbon dioxide, dry chemical powder, water spray or fog to extinguish.

Storage:

Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

**Other Hazards**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Methanol	67-56-1	30-60		

**Notes**

Use of Generic SDS:

If the concentration or actual concentration range of an ingredient of a particular hazardous product in the series is

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: January 15, 2019

Page 02 of 10

different from the concentration or actual concentration range disclosed for the rest of the series, either the concentration or the actual concentration range must be indicated beside that ingredient under item 3 (Composition/Information on ingredients) of the SDS. Furthermore, if any other specific information element(s) (such as flash point, numerical measure of toxicity, etc.) for a particular hazardous product in the series differs from that of the other products in the series (without affecting the classification), the information element relevant to that hazardous product must be disclosed on the SDS with an indication to which hazardous product each relates.

Source: Health Canada - Technical Guidance on the Requirements of the Hazardous Products Act and the Hazardous Products Regulations WHMIS 2015 Supplier Requirements - pg 117

## SECTION 4. FIRST-AID MEASURES

### First-aid Measures

#### Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing has stopped, trained personnel should begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Get medical advice or attention if you feel unwell or are concerned.

#### Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell or are concerned. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

#### Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

#### Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. If breathing has stopped, trained personnel should immediately begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Immediately call a Poison Centre or doctor. Specific treatment is required.

### Most Important Symptoms and Effects, Acute and Delayed

Can cause headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure can cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures.

### Immediate Medical Attention and Special Treatment

#### Target Organs

Eyes, liver, nervous system.

#### Special Instructions

Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to CNS, eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

#### Medical Conditions Aggravated by Exposure

Respiratory conditions.

---

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: January 15, 2019

Page 03 of 10

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam. Special "alcohol resistant fire-fighting foams".

#### Unsuitable Extinguishing Media

Water is not effective for extinguishing a fire. It may not cool product below its flash point.

### Specific Hazards Arising from the Product

Highly flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. Can be ignited by static discharge. Can accumulate static charge by flow, splashing or agitation. Even dilute solutions in water may be flammable. May travel a considerable distance to a source of ignition and flash back to a leak or open container. See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. Burns with an invisible flame. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, resulting in a fire hazard.

In a fire, the following hazardous materials may be generated: toxic chemicals; very toxic carbon monoxide, carbon dioxide; very toxic, flammable formaldehyde.

### Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Evacuate downwind locations. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient. Distant ignition and flashback are possible.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Conditions for Safe Storage

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: January 15, 2019

Page 04 of 10

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

\*\*\*\*NOTE\*\*\*\*

IBC type 31H1 (HDPE 1000L tote) meets all UN requirements for safe transportation under the TDG Regulations. It cannot be used as a storage vessel for this flammable product according to fire protection standard, NFPA 30.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Methanol	200 ppm	250 ppm	200 ppm	250 ppm		

### Appropriate Engineering Controls

General ventilation is usually adequate. For large scale use of this product: do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. Provide safety shower in work area, if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Nitrile rubber.

#### Respiratory Protection

Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	Available in these colours: Clear, Yellow, Gold, Red, Blue, Green, Amber, Pink, Orange, Purple, White, Brown, Grey, Teal.
<b>Odour</b>	Pungent
<b>Odour Threshold</b>	Not available
<b>pH</b>	8 - 11 (100% solution)
<b>Melting Point/Freezing Point</b>	Not available (melting); Not available (freezing)
<b>Initial Boiling Point/Range</b>	Not available
<b>Flash Point</b>	24 - 29 °C (75 - 84 °F) (closed cup)
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	0.93 - 0.97 at 20 °C

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: January 15, 2019

Page 05 of 10

<b>Solubility</b>	Soluble in water; Soluble in all proportions in alcohols (e.g. ethanol).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Liquid
<b>Molecular Weight</b>	Not available

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

None known.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Heat. Open flames, sparks, static discharge, heat and other ignition sources.

### Incompatible Materials

Slightly reactive or incompatible with the following materials: oxidizing agents (e.g. peroxides), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide).  
Not corrosive to metals.

### Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; very toxic, flammable formaldehyde.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Ingestion; eye contact; skin contact; inhalation.

### Acute Toxicity

Chemical Name	LC50	LDLo - Oral	LD50 (dermal)
Methanol	64000 ppm (rat) (4-hour exposure)	143 mg/kg Human - Male	15800 mg/kg (rabbit)

Inhalation ATE: 128,000 mg/L 4hr

Oral ATE: 286mg/kg

Dermal ATE: 31600 mg/kg

### Skin Corrosion/Irritation

Human experience shows very mild irritation.

### Serious Eye Damage/Irritation

Animal tests show serious eye irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Toxic, can cause death based on human experience. At high concentrations depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness.

#### Skin Absorption

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: January 15, 2019

Page 06 of 10

Harmful based on human experience. Can cause effects as described for inhalation. A severe exposure can cause unconsciousness.

#### **Ingestion**

Toxic, can cause death depression of the central nervous system, impaired vision and blindness. In some cases, there may be delayed effects on the nervous system. Symptoms may include headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure may cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures.

#### **Aspiration Hazard**

Not known to be an aspiration hazard.

#### **STOT (Specific Target Organ Toxicity) - Repeated Exposure**

If swallowed: liver function tests may show abnormal results. May cause

If inhaled: effects on the central nervous system. Symptoms may include restlessness, reduced ability to think, muscle tremors, memory loss and personality changes.

May cause Following skin contact: dermatitis. Symptoms may include dry, red, cracked skin (dermatitis).

#### **Respiratory and/or Skin Sensitization**

Not known to be a respiratory sensitizer. Human experience shows an allergic skin reaction (skin sensitization) in rare cases following exposure at work.

#### **Carcinogenicity**

Chemical Name	IARC	ACGIH®	NTP	OSHA
Methanol	Not Listed	Not designated	Not Listed	Not Listed

May cause cancer based on animal studies.

#### **Reproductive Toxicity**

##### **Development of Offspring**

Animal studies show effects on the offspring. If inhaled: known to cause: decreased weight, birth defects. Teratogenic(external, soft tissue and skeletal defects) embryotoxic (late resorptions).

##### **Sexual Function and Fertility**

Not known to cause effects on sexual function or fertility.

##### **Effects on or via Lactation**

May cause effects on or via lactation. Can transfer to mother's milk. May cause harm to breastfed babies.

#### **Germ Cell Mutagenicity**

Conclusions cannot be drawn from the limited studies available.

#### **Interactive Effects**

No information was located.

## **SECTION 12. ECOLOGICAL INFORMATION**

This section is not required by WHMIS.

This section is not required by OSHA HCS 2012.

#### **Ecotoxicity**

##### **Acute Aquatic Toxicity**

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Methanol	15400 mg/L (Lepomis macrochirus (bluegill); 96-hour)	10000 mg/L (Daphnia magna (water flea); 48-hour)		

##### **Chronic Aquatic Toxicity**

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: January 15, 2019

Page 07 of 10

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Methanol	7900 mg/L (Lepomis macrochirus (bluegill); 200-hrs)			

#### Persistence and Degradability

Degrades rapidly based on quantitative tests.

#### Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate.

#### Mobility in Soil

No information was located.

#### Other Adverse Effects

There is no information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1230	METHANOL SOLUTION	3 (6.1)	II
US DOT	1230	METHANOL SOLUTION	3 (6.1)	II

**Environmental Hazards** Not applicable

**Special Precautions** Please note: In containers of 450L or less, this product meets the requirements for exemption under TDG regulation special provisions, part 1, section 1.36b: Class 3, Flammable liquids: Alcohol Exemption.  
In containers of 1 L (1Kg) this product is qualified as a "consumer commodity" ORM-D under DOT

#### Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

#### Proof of Dangerous Goods Classification

**Date of Classification** July 06, 2017  
**Technical Name** METHANOL SOLUTION  
**Classification** 3 (6.1) PG II  
**Classification Method** Flashpoint as per Section 9. LDLo in humans as per Section 11.

## SECTION 15. REGULATORY INFORMATION

#### Safety, Health and Environmental Regulations

##### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1  
Date of Preparation: September 06, 2017  
Date of Last Revision: January 15, 2019

SDS No.: 1775

Page 08 of 10

All ingredients are listed on the DSL/NDSL.

## USA

### Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

### Additional USA Regulatory Lists

California Proposition 65:

WARNING: Reproductive Harm - [www.P65Warnings.ca.gov/product](http://www.P65Warnings.ca.gov/product).

### Custom Regulatory 1

Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Compliance and Regulatory Department

**Phone No.** 905-878-5544

**Date of Preparation** September 06, 2017

**Date of Last Revision** January 15, 2019

**Revision Indicators** The following SDS content was changed on December 14, 2017:  
SECTION 1. IDENTIFICATION; Other Identification.

The following SDS content was changed on June 05, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on August 15, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on August 22, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on August 28, 2018:

Updated Spanish Requirements

The following SDS content was changed on September 10, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on October 16, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on January 15, 2019:

SECTION 7. HANDLING AND STORAGE; Conditions for Safe Storage.

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Additional Information** We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative.

Please send us your request by visiting our website at [www.recochem.com](http://www.recochem.com).

Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.

**Disclaimer** Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: January 15, 2019

Page 09 of 10

described herein, we cannot guarantee that these are the only hazards that exist.

---

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1  
Date of Preparation: September 06, 2017  
Date of Last Revision: January 15, 2019

SDS No.: 1775

Page 10 of 10

# TURBO POWER WINDSHIELD WASHER -40°C



Turbo Power Windshield Washer Antifreeze products are specially developed methanol based fluids designed to provide excellent grime, salt and snow cleaning performance under cold weather conditions.

A non-smear formulation, this all season windshield washer protects from freezing down to  $-40^{\circ}\text{C}$ . Packaged in a new easy pour bottle the consumer can avoid spillage when filling up the vehicle's reservoir.

The general breakdown of the  $-40^{\circ}\text{C}$  fluid is as follows:

Component	Percent Range (vol./vol.)
Methanol	45-50
Water	50-55
Detergents, Stabilizers & Dye	<1

## Product Packaging Specifications

Item#	Unit/Case Pack	UPC	SCC14
15-204	3.78 L /4	056438152040	40056438152048
25-209	205 L	056438252092	N/A
25-209-1000	1000 L	N/A	N/A



Offering a multitude of windshield washer fluids to perform in any weather condition is important... Recochem's winter washer fluid formulas provide excellent grime, salt and snow cleaning performance while the summer bug wash has extra detergents to remove insect splatter, dirt and grime for better visibility. We offer Good/Better/Best products ideal for stocking the shelves of gas bars and any automotive department.

WINDSHIELD WASHER FLUIDS

## All Season Washer Fluid

Non-smear formulas

Item No.	Unit Size	Case Pack	UPC	SCC 14
15-204	3.78 L	4	056438152040	40056438152048
25-209	205 L	Drum	056438252092	N/A
25-209-1000	1000 L	Tote	N/A	N/A

Protection down to **-40°C**



Item No.	Unit Size	Case Pack	UPC	SCC 14
15-215	3.78 L	4	056438152156	40056438152154
25-219	205 L	Drum	056438252191	N/A

Protection down to **-35°C**



## Premium Washer Fluid and De-Icer

Non-smear formulas that prevent windshield ice-up

- Removes frost, light ice, road film and salt

Item No.	Unit Size	Case Pack	UPC	SCC 14
15-404	3.78 L	4	056438154044	40056438154042
15-408	3.78 L	4	056438154082	40056438154080

Protection down to **-45°C**



## Windshield Washer Concentrate

**FOR INDUSTRIAL USE ONLY**

- Methanol based fluid that provides excellent grime, salt and snow cleaning performance
- Dilute product with water for desired freeze point protection

*Never use product at full strength/concentrate.*

Item No.	Unit Size	Case Pack	UPC	SCC 14
15-224	3.78 L	4	056438152248	40056438152246
15-228	18.9 L	Pail	056438152286	N/A
25-229	205 L	Drum	056438252290	N/A
25-229-1000	1000 L	Tote	N/A	N/A



CAT\_WASH\_EN\_0719



**Recochem Inc.**  
Your Partner in Formulating Solutions  
[www.recochem.com](http://www.recochem.com)

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Ursa Super Plus SAE 30, 40

**Product Use:** Diesel Engine Oil  
**Product Number(s):** 219334, 219335, 271203, 271204  
**Company Identification**  
Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
01154100-5328P	Trade secret	0.1 - 1 %wt/wt

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE SYMPTOMS AND HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS:** Not classified.

**Indication of any immediate medical attention and special treatment needed**

Not applicable.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Keep out of the reach of children. Wash thoroughly after handling.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--

Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** Not Applicable

**Specific Gravity:** 0.87 - 0.89 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)

**Density:** 0.87 kg/l @ 15°C (59°F)

**Viscosity:** 10.7 - 19.3 mm<sup>2</sup>/s @ 100°C (212°F)

**Evaporation Rate:** No data available

**Decomposition temperature:** No Data Available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (ASTM D92) 204 °C (399 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** This material is not expected to react.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

#### **ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

## **SECTION 12 ECOLOGICAL INFORMATION**

### **ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

### **MOBILITY**

No data available.

### **PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

### **POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

## **SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities

for approved disposal or recycling methods.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

## SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: EINECS (European Union), ENCS (Japan).

### NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Motor oil)

## SECTION 16 OTHER INFORMATION

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0  
 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**  
 Label Category : ENGINE OIL 1 - ENG1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 2,8,15  
**Revision Date:** AUGUST 07, 2014

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

**HALL CHEM MFG. INC.**1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296

Fax : (450) 645-0444

**MATERIAL SAFETY DATA SHEET****EMERGENCY: CANUTEC (613) 996-6666****MSDS :535 -2****PRODUCT IDENTIFICATION AND USE****NAME OF PRODUCT :** Vision X - 40°C**USE OF PRODUCT :** Windshield washer fluid**TRANSPORTATION OF DANGEROUS GOODS**

TDG

**SHIPPING NAME :** Alcohols, flammable, toxic N.O.S. (methanol/water solution) (> 450L only)**WHMIS CLASSIFICATION:** B2, D1B, D2A,D2B**P.N.I. :** UN 1986**PRIMARY CLASS :** 3**PACKING GROUP :** III**SUBSIDIARY CLASS :** 6.1**U.S. DOT HAZARD CLASSIFICATION** ( For Ground Shipments Only)**HAZARD CLASS/PACKING GROUP:** ORM-D

Alcohols, flammable, toxic N.O.S. (methanol/water solution), 3,(6.1)UN1986, PGIII

Quantities limit passenger : 60L, Quantities limit cargo aircraft : 220L, Vessel slow req locations : A,

Special Provision: B1,IB3,T7,TP1,TP28

**DOT MARINE POLLUTANTS:** This product does not contain Marine Pollutants as defined in 49 CFR 171.8.**IMDG CODE SHIPPING CLASSIFICATION:**

Only containers not over 5L can be shipped as Limited Quantities

Shipping Name: Alcohols, flammable, toxic N.O.S. (methanol/water solution), 3,(6.1)UN1986, PGIII, FP38C,

IBC instructions : IBC 03, Pack instructions non bulk: P001, Slow&amp;Seg: Category A, Outer package cannot weigh more than 30 kg, Special Provision:223,274,944

**IATA REGULATIONS:**

Shipping Name: Alcohols, flammable, toxic N.O.S. (methanol/water solution), 3, UN1986, PGIII

UN 1986, Class: 3,(6.1) PG: III, Hazard Label: Flammable Liquid&amp;Toxic, Passenger quantities: 60L, Cargo bulk

qty: 220L, Air craft Lim. Qty.: 2L, Ltd.Qty. Packaging instruction:Y309 , ERG code:3HP, Special Provision:A3

**COMPONENTS**

COMPOSITION	% B/W	CASE #	LD <sub>50</sub> mg/kg Oral/rat	LC <sub>50</sub> ppm 4h	TLV ppm 8h
Methanol	40-48	67-56-1	6200 to 13 000	64 000	200
Performance additives					

**PHYSICAL CHARACTERISTICS**

<b>PHYSICAL STATE :</b> Liquid	<b>APPEARANCE :</b> Blue	<b>ODOR :</b> Alcohol	<b>ODORTRESHOLD :</b> Not available
<b>VAPOR TENSION :</b>	<b>VAPOR DENSITY :</b>	<b>EVAPORATING RATE :</b>	



**HALL CHEM MFG. INC.**1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296

Fax : (450) 645-0444

**MATERIAL SAFETY DATA SHEET****EMERGENCY: CANUTEC (613) 996-6666**

Not available	Not available	Not available
<b>BOILING RANGE</b> : 79°C	<b>FREEZING POINT</b> : -40°C	<b>pH</b> : N/A
<b>DENSITY (20°C)</b> : 0,934	<b>DISTRIBUTION FACTOR WATER/OIL</b> : Not available	<b>SOLUBILITY IN WATER (25°C)</b> : 100%

**REACTIVITY DATA****CHEMICAL STABILITY** : Stable**INCOMPATIBILITY WITH OTHER PRODUCTS** : Avoid contact with oxidizing agents, strong bases and strong acids. Avoid using in presence of natural rubber. May corrode lead and aluminum.**REACTIVITY CONDITIONS** : Avoid excessive heat, flames and other ignition sources. No hazardous polymerization.**EXPLOSION AND FIRE RISKS****FLAMMABILITY** : Flammable**EXTINGUISHING METHODS** : Water, dry chemical powder purple K, FAM resistant to alcohol with 6% foam or carbon dioxide.**FLASH POINT** : 28°C close cup**AUTO-IGNITION TEMPS.** : 385°C**FLAMMABILITY (% per volume)****SUPERIOR LIMIT** : Not available**LOWER LIMIT** : 3,2**HAZARDOUS COMBUSTION PRODUCT** : Vapors forms a flammable/explosive mixture with air between upper and lower flammable limits. Combustion may produce carbon dioxide, carbon monoxide and formaldehyde.**EXPLOSIBILITY DATA** :**TOXICOLOGICAL PROPERTIES**

ABSORPTION WAYS			CONTACT	
<b>SKIN</b> ✓	<b>INHALATION</b> ✓	<b>INGESTION</b> ✓	<b>WITH SKIN</b> ✓	<b>EYES</b> ✓

**EFFECTS OF EXPOSURE TO PRODUCT** : Swallowing even small amount of methanol can cause blindness and death other effects may be nausea, headache, abdominal pain, vomiting and visual disturbances ranging from blurred vision to light sensitivity. Inhalation of high airborne concentration can also irritate mucous membranes, cause sleepiness, confusion, loss of consciousness, digestive and visual disturbances and death. May be absorbed through the skin in toxic or lethal amounts. Causes mild irritation, redness, cracking and drying. Repeated exposure by inhalation or absorption may cause systemic poisoning, brain disorders, impaired vision and blindness. Inhalation may worsen conditions such as emphysema or bronchitis.**PREVENTIVE MEASURES****PROTECTIVE EQUIPMENT** : Gloves, security glasses and protective apron.**GLOVES** : Butyl and nitrite.

## HALL CHEM MFG. INC.

1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296

Fax : (450) 645-0444

# MATERIAL SAFETY DATA SHEET

**EMERGENCY: CANUTEC (613) 996-6666**

**RESPIRATORY SYSTEM :** Necessary over the permitted limit.

**OCULAR INSTRUMENT :** Security glasses and face shield.

**CLOTHING :** Apron, jacket

**TECHNICAL CONTROL :** Ventilation

**PROCEDURE IN CASE OF LEAKS/SPILLS :** Extremely flammable liquid. Eliminate all ignition sources, stop spill and use absorbent materials. Collect liquid with explosion proof pumps. For small spills, collect with a non-combustible absorbent. Recover methanol or dilute with water to reduce fire hazard. Do not throw in the sewers or garbage.

**HANDLING :** Avoid breathing vapor. Do not get in eyes, skin or on clothing. Wash thoroughly with soap and water after handling.

**WASTE DISPOSAL :** Incineration, biological treatment of dilute solution, or landfill of solidified prior to disposal in accordance with local, federal and provincial regulations.

**STORAGE :** In a cool, dry and well ventilated area. Keep away from incompatible material and from sources of ignition (naked flames, sparks, electricity). Keep the containers grounded especially during pumping and transfer operations.

## FIRST AID

**EYES :** Remove contact lenses if present and easy to do so. In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower eyelids occasionally. Obtain medical attention.

**SKIN :** If in skin or hair, remove immediately all contaminated clothing. Rinse skin with water/shower. In case of contact, remove contaminated clothing. In a shower, wash affected areas with soap and water for at least 15 minutes. Seek medical attention if irritation occurs or persists. Wash contaminated clothing before reuse. Prolonged contact with methanol may defat skin tissue, resulting in drying and cracking.

**INGESTION :** If swallowed immediately call a POISON CENTRE or doctor. Rinse mouth. Swallowing methanol is potentially life threatening. Onset of symptoms may be delayed for 18 to 24 hours after digestion. If conscious and medical aid is not immediately available, do not induce vomiting. In actual or suspected cases of ingestion, transport to medical facility immediately. (See note to physician)

**INHALATION :** If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTRE or doctor. Specific treatment is urgent (see note to physician).

**NOTES TO THE ATTENTION OF THE DOCTOR :** Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to the Central Nervous System (CNS), eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended. Ethanol significantly decreases the toxicity of methanol because it competes for the same metabolic enzymes, and has been used to treat methanol poisoning.



**HALL CHEM MFG. INC.**

1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296  
Fax : (450) 645-0444

**MATERIAL SAFETY DATA SHEET**

**EMERGENCY: CANUTEC (613) 996-6666**

---

---

**INFORMATION ON THE M.S.D.S. PREPARATION**

**PREPARED BY :**  
**Hall Chem Mfg. Inc.**

**TELEPHONE : (450) 645-0296**

**REVISED January 2015**

**NOTE :**

The information in this detailed M.S.D.S. is available on request, for the customer service. It must not be used for any other purpose and its reproduction and/or publication is forbidden without the consent of HALL CHEM MFG. INC. Even though this information is based on reliable sources, HALL CHEM MFG. INC. cannot guarantee its accuracy and formally excludes all explicit guarantee relative to the exactitude of this information or of the results following its application.



**HALL CHEM MFG. INC.**1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296

Fax : (450) 645-0444

**MATERIAL SAFETY DATA SHEET****EMERGENCY: CANUTEC (613) 996-6666****MSDS :535 -2****PRODUCT IDENTIFICATION AND USE****NAME OF PRODUCT :** Vision X - 40°C**USE OF PRODUCT :** Windshield washer fluid**TRANSPORTATION OF DANGEROUS GOODS**

TDG

**SHIPPING NAME :** Alcohols, flammable, toxic N.O.S. (methanol/water solution) (> 450L only)**WHMIS CLASSIFICATION:** B2, D1B, D2A,D2B**P.N.I. :** UN 1986**PRIMARY CLASS :** 3**PACKING GROUP :** III**SUBSIDIARY CLASS :** 6.1**U.S. DOT HAZARD CLASSIFICATION ( For Ground Shipments Only)****HAZARD CLASS/PACKING GROUP: ORM-D**

Alcohols, flammable, toxic N.O.S. (methanol/water solution), 3,(6.1)UN1986, PGIII

Quantities limit passenger : 60L, Quantities limit cargo aircraft : 220L, Vessel slow req locations : A,

Special Provision: B1,IB3,T7,TP1,TP28

**DOT MARINE POLLUTANTS:** This product does not contain Marine Pollutants as defined in 49 CFR 171.8.**IMDG CODE SHIPPING CLASSIFICATION:**

Only containers not over 5L can be shipped as Limited Quantities

Shipping Name: Alcohols, flammable, toxic N.O.S. (methanol/water solution), 3,(6.1)UN1986, PGIII, FP38C,

IBC instructions : IBC 03, Pack instructions non bulk: P001, Slow&amp;Seg: Category A, Outer package cannot weigh more than 30 kg, Special Provision:223,274,944

**IATA REGULATIONS:**

Shipping Name: Alcohols, flammable, toxic N.O.S. (methanol/water solution), 3, UN1986, PGIII

UN 1986, Class: 3,(6.1) PG: III, Hazard Label: Flammable Liquid&amp;Toxic, Passenger quantities: 60L, Cargo bulk

qty: 220L, Air craft Lim. Qty.: 2L, Ltd.Qty. Packaging instruction:Y309 , ERG code:3HP, Special Provision:A3

**COMPONENTS**

COMPOSITION	% B/W	CASE #	LD <sub>50</sub> mg/kg Oral/rat	LC <sub>50</sub> ppm 4h	TLV ppm 8h
Methanol	40-48	67-56-1	6200 to 13 000	64 000	200
Performance additives					

**PHYSICAL CHARACTERISTICS**

<b>PHYSICAL STATE :</b> Liquid	<b>APPEARANCE :</b> Blue	<b>ODOR :</b> Alcohol	<b>ODORTRESHOLD :</b> Not available
<b>VAPOR TENSION :</b>	<b>VAPOR DENSITY :</b>	<b>EVAPORATING RATE :</b>	



**HALL CHEM MFG. INC.**1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296

Fax : (450) 645-0444

**MATERIAL SAFETY DATA SHEET****EMERGENCY: CANUTEC (613) 996-6666**

Not available	Not available	Not available
<b>BOILING RANGE : 79°C</b>	<b>FREEZING POINT : -40°C</b>	<b>pH : N/A</b>
<b>DENSITY (20°C) : 0,934</b>	<b>DISTRIBUTION FACTOR WATER/OIL : Not available</b>	<b>SOLUBILITY IN WATER (25°C) : 100%</b>

**REACTIVITY DATA****CHEMICAL STABILITY :** Stable**INCOMPATIBILITY WITH OTHER PRODUCTS :** Avoid contact with oxidizing agents, strong bases and strong acids. Avoid using in presence of natural rubber. May corrode lead and aluminum.**REACTIVITY CONDITIONS :** Avoid excessive heat, flames and other ignition sources. No hazardous polymerization.**EXPLOSION AND FIRE RISKS****FLAMMABILITY :** Flammable**EXTINGUISHING METHODS :** Water, dry chemical powder purple K, FAM resistant to alcohol with 6% foam or carbon dioxide.**FLASH POINT :** 28°C close cup**AUTO-IGNITION TEMPS. :** 385°C**FLAMMABILITY (% per volume)****SUPERIOR LIMIT :** Not available**LOWER LIMIT :** 3,2**HAZARDOUS COMBUSTION PRODUCT :** Vapors forms a flammable/explosive mixture with air between upper and lower flammable limits. Combustion may produce carbon dioxide, carbon monoxide and formaldehyde.**EXPLOSIBILITY DATA :****TOXICOLOGICAL PROPERTIES**

ABSORPTION WAYS			CONTACT						
SKIN	✓	INHALATION	✓	INGESTION	✓	WITH SKIN	✓	EYES	✓

**EFFECTS OF EXPOSURE TO PRODUCT :** Swallowing even small amount of methanol can cause blindness and death other effects may be nausea, headache, abdominal pain, vomiting and visual disturbances ranging from blurred vision to light sensitivity. Inhalation of high airborne concentration can also irritate mucous membranes, cause sleepiness, confusion, loss of consciousness, digestive and visual disturbances and death. May be absorbed through the skin in toxic or lethal amounts. Causes mild irritation, redness, cracking and drying. Repeated exposure by inhalation or absorption may cause systemic poisoning, brain disorders, impaired vision and blindness. Inhalation may worsen conditions such as emphysema or bronchitis.

**PREVENTIVE MEASURES****PROTECTIVE EQUIPMENT :** Gloves, security glasses and protective apron.**GLOVES :** Butyl and nitrile.

## HALL CHEM MFG. INC.

1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296

Fax : (450) 645-0444

# MATERIAL SAFETY DATA SHEET

**EMERGENCY: CANUTEC (613) 996-6666**

**RESPIRATORY SYSTEM :** Necessary over the permitted limit.

**OCULAR INSTRUMENT :** Security glasses and face shield.

**CLOTHING :** Apron, jacket

**TECHNICAL CONTROL :** Ventilation

**PROCEDURE IN CASE OF LEAKS/SPILLS :** Extremely flammable liquid. Eliminate all ignition sources, stop spill and use absorbent materials. Collect liquid with explosion proof pumps. For small spills, collect with a non-combustible absorbent. Recover methanol or dilute with water to reduce fire hazard. Do not throw in the sewers or garbage.

**HANDLING :** Avoid breathing vapor. Do not get in eyes, skin or on clothing. Wash thoroughly with soap and water after handling.

**WASTE DISPOSAL :** Incineration, biological treatment of dilute solution, or landfill of solidified prior to disposal in accordance with local, federal and provincial regulations.

**STORAGE :** In a cool, dry and well ventilated area. Keep away from incompatible material and from sources of ignition (naked flames, sparks, electricity). Keep the containers grounded especially during pumping and transfer operations.

## FIRST AID

**EYES :** Remove contact lenses if present and easy to do so. In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower eyelids occasionally. Obtain medical attention.

**SKIN :** If in skin or hair, remove immediately all contaminated clothing. Rinse skin with water/shower. In case of contact, remove contaminated clothing. In a shower, wash affected areas with soap and water for at least 15 minutes. Seek medical attention if irritation occurs or persists. Wash contaminated clothing before reuse. Prolonged contact with methanol may defat skin tissue, resulting in drying and cracking.

**INGESTION :** If swallowed immediately call a POISON CENTRE or doctor. Rinse mouth. Swallowing methanol is potentially life threatening. Onset of symptoms may be delayed for 18 to 24 hours after digestion. If conscious and medical aid is not immediately available, do not induce vomiting. In actual or suspected cases of ingestion, transport to medical facility immediately. (See note to physician)

**INHALATION :** If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTRE or doctor. Specific treatment is urgent (see note to physician).

**NOTES TO THE ATTENTION OF THE DOCTOR :** Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to the Central Nervous System (CNS), eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended. Ethanol significantly decreases the toxicity of methanol because it competes for the same metabolic enzymes, and has been used to treat methanol poisoning.



**HALL CHEM MFG. INC.**

1270 rue Nobel  
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296  
Fax : (450) 645-0444

**MATERIAL SAFETY DATA SHEET**

**EMERGENCY: CANUTEC (613) 996-6666**

---

---

**INFORMATION ON THE M.S.D.S. PREPARATION**

**PREPARED BY :**  
**Hall Chem Mfg. Inc.**

**TELEPHONE : (450) 645-0296**

**REVISED January 2015**

**NOTE :**

The information in this detailed M.S.D.S. is available on request, for the customer service. It must not be used for any other purpose and its reproduction and/or publication is forbidden without the consent of HALL CHEM MFG. INC. Even though this information is based on reliable sources, HALL CHEM MFG. INC. cannot guarantee its accuracy and formally excludes all explicit guarantee relative to the exactitude of this information or of the results following its application.



# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Way Oil Vistac 68, 220

**Product Use:** Industrial Oil

**Product Number(s):** 232511, 232512

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Distillates, hydrotreated middle	64742-46-7	70 - 99 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed** Not Applicable

## SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

### **PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

### Occupational Exposure Limits:

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor  
**Odor Threshold:** No data available  
**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)  
**Vapor Density (Air = 1):** >1  
**Initial Boiling Point:** 315°C (599°F)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Specific Gravity:** 0.9117 @ 15.6°C (60.1°F) Minimum  
**Density:** Not Applicable  
**Viscosity:** 61.20 mm<sup>2</sup>/s @ 40°C (104°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 170 °C (338 °F) (Min)

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product

components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1

01-2A=IARC Group 2A

01-2B=IARC Group 2B



35=WHMIS IDL

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), IECSC (China), KECl (Korea), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** June 01, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own

determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Way Oil Vistac 68, 220

**Product Use:** Industrial Oil

**Product Number(s):** 232511, 232512

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Distillates, hydrotreated middle	64742-46-7	70 - 99 %wt/wt

## SECTION 4 FIRST AID MEASURES

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE SYMPTOMS AND HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS:** Not classified.

**Indication of any immediate medical attention and special treatment needed**

Not applicable.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this

material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Brown  
**Physical State:** Liquid  
**Odor:** Petroleum odor  
**Odor Threshold:** No data available  
**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)  
**Vapor Density (Air = 1):** >1  
**Initial Boiling Point:** 315°C (599°F)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Specific Gravity:** 0.9117 @ 15.6°C (60.1°F) / 15.6°C (60.1°F) Minimum  
**Density:** Not Applicable  
**Viscosity:** 61.2 mm<sup>2</sup>/s @ 40°C (104°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No Data Available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available  
**Flashpoint:** (Cleveland Open Cup) 170 °C (338 °F) (Min)  
**Autoignition:** No data available  
**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** This material is not expected to react.  
**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.  
**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

**SECTION 15 REGULATORY INFORMATION**

**EPCRA 311/312 CATEGORIES:**

1. Immediate (Acute) Health Effects:	NO
2. Delayed (Chronic) Health Effects:	NO
3. Fire Hazard:	NO
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Lubricating oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16  
**Revision Date:** JUNE 03, 2014

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# SAFETY DATA SHEET

## 1. Identification

**Product name** FM SEAMER OIL 150

**Other means of identification** No data available.

**Recommended use:** Lubricating fluid

**Restrictions on use:** Industrial use only

### Manufacturer/Importer/Supplier/Distributor Information

**Manufacturer**

Company Name: Fuchs Lubricants Co.  
 Address: 17050 Lathrop Avenue  
 Harvey, Illinois 60426

Telephone: 708-333-8900  
 Fax: 708-333-9180

Contact Person: EHS Department  
 E-mail: sds@fuchs.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard(s) identification

**Hazard Classification** Not classified as hazardous under GHS

### Label Elements

**Hazard Symbol:** No symbol

**Signal Word:** No signal word.

**Hazard Statement:** Not applicable

**Precautionary Statements** Not applicable

**Other hazards which do not result in GHS classification:** None.

**3. Composition/information on ingredients**

**Hazardous Component(s):**

Chemical name	CAS-No.	Concentration
White Mineral oil	Confidential	60 - 100%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

**4. First-aid measures**

- Ingestion:** Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.
- Inhalation:** Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.
- Skin Contact:** Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
- Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Get medical attention if symptoms occur.

**5. Fire-fighting measures**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, fog, CO2, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:** Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:** Contains a component that when heated at or above 300F (150C) may generate Formaldehyde vapors. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

**Conditions for safe storage, including any incompatibilities:** Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
White Mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2012)
White Mineral oil - Mist.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

**Protective Measures:** Use personal protective equipment as required.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**Eye Protection:** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**9. Physical and chemical properties**

**Appearance**

<b>Physical state:</b>	liquid
<b>Form:</b>	No data available.
<b>Color:</b>	Water-white
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	270 °C (518 °F)
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	0.8762
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Emulsifiable in water
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	150 mm <sup>2</sup> /s (40 °C)

**10. Stability and reactivity**

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.

<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. formaldehyde

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.
<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral</b>	
<b>Product:</b>	ATEmix (): > 5000 mg/kg
<b>Dermal</b>	
<b>Product:</b>	ATEmix (): 2000 - 5000 mg/kg
<b>Inhalation</b>	
<b>Product:</b>	Not classified for acute toxicity based on available data.

<b>Repeated dose toxicity</b>	
<b>Product:</b>	No data available.

<b>Skin Corrosion/Irritation</b>	
<b>Product:</b>	No data available.

<b>Serious Eye Damage/Eye Irritation</b>	
<b>Product:</b>	No data available.

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information**

**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

**13. Disposal considerations**



**Disposal Instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### 14. Transport information

**DOT**

Not regulated.

**IMDG**

Not regulated.

**IATA**

Not regulated.

#### 15. Regulatory information

**US Federal Regulations**

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

None

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

#### 16. Other information, including date of preparation or last revision

**Issue Date:** 02.08.2019

**Revision Date:** 15.06.2016



---

**Version #:** 1.1

**Further Information:** No data available.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

<b>Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION</b>
---

<b>Product Name:</b>	All Season - Windshield Washer
<b>Product Use:</b>	Windshield de-icing fluid
<b>Supplier:</b>	Jack Smith Fuels Ltd. 351 Queen Street North, Bldg F Tilbury, ON N0P 2L0
<b>Phone Number:</b>	519-682-0111
<b>Emergency Phone (Canutec):</b>	1-613-996-666
<b>Date of Preparation:</b>	17 July 2017

<b>Section 2. HAZARDS IDENTIFICATION</b>
--

**EMERGENCY OVERVIEW**

DANGER

IRRITATING TO EYES

TOXIC IF SWALLOWED

**Colour:**

Blue

**Physical State:**

Liquid

**Odour:**

Slight Alcohol Smell

**Potential Health Effects:** See Section 11 for more information.**Likely Routes of Exposure:** Eye contact. Skin contact. Inhalation. Ingestion. Skin absorption.

**Inhalation:** May cause respiratory tract irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause headache, dizziness, confusion, loss of appetite and loss of consciousness. Inhalation of Methanol exerts toxic effects upon nervous system, particularly the optic nerve. Once absorbed into the body, it is very slowly eliminated. Inhalation of Methanol may worsen conditions such as emphysema or bronchitis.

**Eye:** Irritating to eyes. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Ingestion:** May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Ingesting even small amounts of methanol could potentially cause blindness or death. Effects of sub lethal doses may be nausea, headache, abdominal pain, vomiting, blurred vision, blindness, coma and death. A person may get better but then worse again up to 30 hours later.

**Chronic Effects:** See Section 11 for more information.**Medical Conditions Aggravated By Exposure:** Emphysema. Bronchitis.**Target Organs:** Skin. Eyes. Gastrointestinal tract. Respiratory system. Nervous system.**Potential Environmental Effects:** See Section 12 for more information.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

<b>Section 3. COMPOSITION / INFORMATION ON INGREDIENTS</b>
--

Component	CAS No.	Wt. %
Water	4489-20-0	50 - 100
Methanol	67-56-1	10 - 40
Propylene Glycol	57-55-6	0- 5

<b>Section 4. FIRST AID MEASURES</b>
--------------------------------------

<b>Eye Contact:</b>	Flush eyes with plenty of water for at least 15 minutes. If signs/symptoms persist, get medical attention.
<b>Skin Contact:</b>	Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. If signs/symptoms develop, get medical attention.
<b>Ingestion:</b>	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately. Swallowing Methanol is potentially life threatening. Onset of symptoms may be delayed for 18 to 24 hours after digestion.
<b>Inhalation:</b>	Remove person to fresh air. If breathing has stopped apply artificial respiration. If signs/symptoms develop, get medical attention.
<b>General Advice:</b>	In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
<b>Note to Physicians:</b>	Symptoms may not appear immediately. Acute exposure to Methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to CNS, eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of Ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

<b>Section 5. FIRE FIGHTING MEASURES</b>
--

<b>Flammability:</b>	Released vapours may form flammable/explosive mixtures at or above the flash point. Vapours may travel considerable distances to ignition sources and cause a build-up, auto-ignition or explosion.
<b>Means of Extinction</b>	
<b>Suitable Extinguishing Media:</b>	Dry chemical. Carbon dioxide. Foam.
<b>Unsuitable Extinguishing Media:</b>	Not available.

<b>Products of Combustion:</b>	Oxides of carbon. Aldehydes.
<b>Protection of Firefighters:</b>	Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and self-contained breathing apparatus.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact:</b>	This material is not sensitive to mechanical impact.
<b>Sensitivity to Static Discharge:</b>	This material is sensitive to static discharge at temperatures above the flash point.

### Section 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Evacuate all unnecessary personnel. Stay upwind. Eliminate all ignition sources. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
<b>Environmental Precautions:</b>	Keep out of drains, sewers, ditches, and waterways.
<b>Methods for Containment:</b>	Stop leak if without risk. Contain spill and absorb with inert absorbent. Large pools may be covered with foam to prevent vapour evolution. Do not flush to sewer or allow to enter waterways.
<b>Methods for Clean-Up:</b>	Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. Large spills should be removed with explosion proof vacuum equipment.
<b>Other Information:</b>	Dispose of in accordance with all federal, provincial and local regulations. Comply with federal, provincial, and local requirements for spill and/or release notification.

### Section 7. HANDLING AND STORAGE

#### Handling:

Do not swallow. Do not get in eyes. All equipment used when handling the product must be grounded. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking. See Section 8 for information on Personal Protective Equipment.

#### Storage:

Store in cool, dry, well-ventilated area away from incompatible materials, heat, and sources of ignition. All storage containers and pumping equipment should be grounded. Keep out of the reach of children.

### Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Guidelines Component

Methanol

(67-56-1) <b>ACGIH:</b>	200 ppm (TWA); 250 ppm (STEL); Skin; BEI (2008)
(67-56-1) <b>OSHA:</b>	200 ppm (TWA), 260 mg/m <sup>3</sup> (TWA);

## SAFETY DATA SHEET

## All Season - Windshield Washer

250 ppm (STEL); Skin. [Vacated]

**PEL:** Permissible Exposure Limit  
**TLV:** Threshold Limit Value  
**TWA:** Time-Weighted Average  
**STEL:** Short-Term Exposure Limit  
**C:** Ceiling

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits. Use explosion-proof ventilation equipment.

### Personal Protective Equipment

**Eye/Face Protection:** Wear safety glasses. Ensure that eyewash stations are close to the workstation location.

**Hand Protection:** Wear impervious gloves. Consult manufacturer specifications for further information.

**Skin and Body Protection:** Wear suitable protective clothing. Flame resistant clothing such as Nomex® is recommended in areas where material is stored or handled.

**Respiratory Protection:** If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator or self-contained breathing apparatus should be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Blue Liquid
<b>Odour:</b>	Mild - Alcohol Smell
<b>Flash Point, °C:</b>	36
<b>Freezing Point, °C:</b>	-37
<b>Vapour Pressure, in mm of Hg:</b>	38.8
<b>Vapour Density, (Air = 1):</b>	0.92
<b>Specific Gravity @ 20°C</b>	0.945
<b>Evaporation Rate:</b> (n-butyl acetate = 1)	0.845

## SAFETY DATA SHEET

## All Season - Windshield Washer

<b>pH Value:</b>	7 to 8
<b>Solubility in Water:</b>	Soluble
<b>Boiling Point, °C:</b>	76
<b>Coeff of Oil/Water:</b>	-0.95

<b>Section 10. STABILITY AND REACTIVITY</b>
---

<b>Stability:</b>	Stable under normal storage conditions.
<b>Incompatible Materials:</b>	Contact with incompatible materials, Sources of ignition, Exposure to heat
<b>Hazardous Decomposition Products:</b>	Hydrogen.
<b>Possibility of Hazardous Reactions:</b>	Methanol may react with metallic aluminum and generate hydrogen gas. Will attack some forms of plastics, rubber, and coatings.

<b>Section 11. TOXICOLOGICAL INFORMATION</b>
--

**EFFECTS OF ACUTE EXPOSURE****Component Toxicity**

<b>Component</b>	<b>CAS No.</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50</b>
Methanol	67-56-1	5628 mg/kg, (rat)	15800 mg/kg, (rabbit)	64000 ppm, (rat), 4H

**Inhalation:** May cause respiratory tract irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause headache, dizziness, confusion, loss of appetite and loss of consciousness. Inhalation of Methanol exerts toxic effects upon nervous system, particularly the optic nerve. Once absorbed into the body, it is very slowly eliminated. Symptoms parallel those of ingestion of Methanol. Inhalation of Methanol may worsen conditions such as emphysema or bronchitis.

**Eye:** Irritating to eyes. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Skin:** May be irritating to skin. Signs/symptoms may include localized redness, swelling, and itching. Skin absorption of Methanol can occur; symptoms may parallel ingestion or Inhalation exposure.

**Ingestion:** May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Ingesting even small amounts of methanol could potentially cause blindness or death. Effects of sub lethal doses may be nausea, headache, abdominal pain, vomiting, blurred vision, blindness, coma and death. A person may get better but then worse again up to 30 hours later.

**Skin Sensitization:** Not hazardous by OSHA/WHMIS criteria.

**Respiratory Sensitization:** Not hazardous by OSHA/WHMIS criteria.

**EFFECTS OF CHRONIC EXPOSURE**

**SAFETY DATA SHEET**

**All Season - Windshield Washer**

**Target Organs:** Skin. Eyes. Gastrointestinal tract. Respiratory system. Nervous system.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to Methanol by inhalation or absorption may cause systemic poisoning, brain disorders, impaired vision and blindness.

**Carcinogenicity:** Not hazardous by OSHA/WHMIS criteria.

**Component Carcinogenicity**

<b>Component</b>	<b>ACGIH</b>	<b>IARC</b>	<b>NTP</b>	<b>OSHA</b>	<b>Prop 65</b>
Methanol	Not listed.		Not listed.	Not listed.	Not listed. Listed.

**Mutagenicity:** Not hazardous by OSHA/WHMIS criteria.

**Reproductive Effects:** Not hazardous by OSHA/WHMIS criteria.

**Developmental Effects**

**Teratogenicity:** Hazardous by OSHA/WHMIS criteria. Possible risk of harm to the unborn child.

**Embryotoxicity:** Hazardous by OSHA/WHMIS criteria. Possible risk of harm to the unborn child.

**Toxicologically Synergistic Materials:** In animals, high concentrations of methanol can increase the toxicity of other chemicals, particularly liver toxins like carbon tetrachloride. Ethanol significantly reduces the toxicity of methanol because it competes for the same metabolic enzymes, and has been used to treat methanol poisoning.

**Section 12. ECOLOGICAL INFORMATION**

**Ecotoxicity:** Not available.  
**Persistence / Degradability:** Not available.  
**Bioaccumulation / Accumulation:** Not available.  
**Mobility in Environment:** Not available

**Section 13. DISPOSAL INFORMATION**

**Disposal Instructions:** Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

**Section 14. TRANSPORTATION INFORMATION****Canadian TDG Classification:**

UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (methanol), Class 3 (6.1), PG III

Label(s): Flammable Liquid

Placard: Flammable Liquids

**15. REGULATORY INFORMATION****Chemical Inventories****US (TSCA)**

The components of this product are in compliance with the chemical notification requirements of TSCA.

**Canada (DSL)**

The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

**Federal Regulations****Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**WHMIS Classification:**Class D1B - Toxic Material  
Class D2A - Teratogenicity  
Class D2A - Embryo Toxicity  
Class D2B - Eye Irritant**Hazard Symbols:****Danger!**

H226 Flammable liquid and vapour.

H301 + H311 + H331 Toxic if swallowed, in contact with skin and if inhaled.

H370 Causes damage to eyes.

H373 May cause damage to kidneys through prolonged or repeated exposure.

<b>Section 16. OTHER INFORMATION</b>
--------------------------------------

**References:**

Information in this documented provided by the following:

RTECS-Registry of Toxic Effects of Chemical Substances, Canadian Centre for Occupational Health and Safety  
RTECS database.

Petro Laboratories Inc.1295 Matheson Blvd. East, Mississauga, ON L4W 1R1, 905-361-2388

Supplier's Material Safety Data Sheets(s).

CHEMINFO chemical profile, Canadian Centre for Occupational Health and Safety, Hamilton, ON, Canada.

**Disclaimer:**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his own particular use.

## WINDSHIELD WASH -40°C

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	WINDSHIELD WASH -40°C
<b>Other Means of Identification</b>	15-204, 15-204EXP, 15-204LAU, 15-204OEM, 15-204OEMPPK, 15-204OEMPRO, 15-204SUPR, 15-204SUPR-S, 15-215, 15-215OEM, 15-215PAC, 15-215SUPR, 15-216PAC, 15-403SLV, 15-403SLV-PRO, 15-404, 15-408, 25-209, 25-209-1000, 25-209P-1000, 25-209PRMX-1K, 25-219, 35-204ACK, 35-204APR, 35-204BMR, 35-204CERT, 35-204CHR, 35-204CK, 35-204CQ, 35-204CT, 35-204FLS, 35-204H, 35-204LAU, 35-204LUB, 35-204M, 35-204MAC, 35-204MMNO, 35-204PEP, 35-204PM, 35-204QS, 35-204QS-PRO, 35-204QS-PRO1, 35-204RP, 35-204SEL, 35-204SO, 35-204SO-W, 35-204TRP, 35-204U/N, 35-204VIS, 35-204VISEXP, 35-204VOL, 35-204VW, 35-207ARM, 35-207PRES, 35-208SO, 35-209ACK, 35-209ACK-1000, 35-209CHR, 35-209OPW-1K, 35-209QSOPW-1K, 35-209U/N, 35-215ACK, 35-215AS, 35-215AX, 35-215CERT, 35-215H, 35-215LD, 35-215LIFE, 35-215TSC, 35-215UFA, 35-215WM, 35-216WM, 35-219ACK, 35-219ACK-1000, 35-306GP, 35-309OPW-1K, 35-404BMW, 35-404C, 35-404CT, 35-404E, 35-404LIFE, 35-404MER, 35-404PC, 35-404QS, 35-404REF, 35-404STP, 35-404U/N, 35-404UFA, 35-405C, 35-405TSC, 35-408HUS, 35-408SL,, 85-204, 85-209, 85-209-40, BULK-15204, BULK-TRUCK25209, 40W378, 40W205, 40W1000, 35W378, 35W205, 35W1000, BULK-15049, 35-209TRP, 35-405STP
<b>Other Identification</b>	WINDSHIELD WASH -45°C, WINDSHIELD WASH -35°C, Tough Guy Windshield WASH -35°C, Tough Guy Windshield WASH -45°C, Tough Guy Windshield WASH -40°C, Drilling Fluid
<b>Recommended Use</b>	Please refer to Product label.
<b>Restrictions on Use</b>	None known.
<b>Manufacturer/Supplier Identifier</b>	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
<b>Emergency Phone No.</b>	CANUTEC, 613-996-6666, 24 Hours
<b>SDS No.</b>	1775

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Flammable liquid - Category 3; Acute toxicity (Oral) - Category 3; Skin irritation - Category 3; Eye irritation - Category 2B; Reproductive toxicity - Effects on or via lactation; Specific target organ toxicity (single exposure) - Category 1

#### Label Elements



Signal Word:  
Danger

Hazard Statement(s):

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1  
Date of Preparation: September 06, 2017  
Date of Last Revision:

SDS No.: 1775

Page 01 of 09

H226 Flammable liquid and vapour.  
H301 Toxic if swallowed.  
H316 Causes mild skin irritation.  
H320 Causes eye irritation.  
H362 May cause harm to breast-fed children.  
H370 Causes damage to organs.

Precautionary Statement(s):

Prevention:

P201 Obtain special instructions before use.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof electrical, ventilating, and lighting equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe fume, mist, vapours, spray.  
P264 Wash hands and skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P263 Avoid contact during pregnancy and while nursing.  
P280 Wear protective gloves, eye protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor.  
P330 Rinse mouth.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P308 + P311 If exposed or concerned: Call a POISON CENTRE or doctor.  
P332 + P313 If skin irritation occurs: Get medical advice or attention.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P307 + P311 If exposed: Call a POISON CENTRE or doctor.  
P337 + P313 If eye irritation persists: Get medical advice or attention.  
P370 + P378 In case of fire: Use appropriate foam, carbon dioxide, dry chemical powder, water spray or fog to extinguish.

Storage:

Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

**Other Hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Methanol	67-56-1	30-60		

**Notes**

Use of Generic SDS:

If the concentration or actual concentration range of an ingredient of a particular hazardous product in the series is different from the concentration or actual concentration range disclosed for the rest of the series, either the

concentration or the actual concentration range must be indicated beside that ingredient under item 3 (Composition/Information on ingredients) of the SDS. Furthermore, if any other specific information element(s) (such as flash point, numerical measure of toxicity, etc.) for a particular hazardous product in the series differs from that of the other products in the series (without affecting the classification), the information element relevant to that hazardous product must be disclosed on the SDS with an indication to which hazardous product each relates.

Source: Health Canada - Technical Guidance on the Requirements of the Hazardous Products Act and the Hazardous Products Regulations WHMIS 2015 Supplier Requirements - pg 117

## SECTION 4. FIRST-AID MEASURES

### First-aid Measures

#### Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing has stopped, trained personnel should begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Get medical advice or attention if you feel unwell or are concerned.

#### Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell or are concerned. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

#### Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

#### Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. If breathing has stopped, trained personnel should immediately begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Immediately call a Poison Centre or doctor. Specific treatment is required.

### Most Important Symptoms and Effects, Acute and Delayed

Can cause headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure can cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures.

### Immediate Medical Attention and Special Treatment

#### Target Organs

Eyes, liver, nervous system.

#### Special Instructions

Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to CNS, eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

#### Medical Conditions Aggravated by Exposure

Respiratory conditions.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam. Special "alcohol resistant fire-fighting foams".

#### Unsuitable Extinguishing Media

Water is not effective for extinguishing a fire. It may not cool product below its flash point.

### Specific Hazards Arising from the Product

Highly flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. Can be ignited by static discharge. Can accumulate static charge by flow, splashing or agitation. Even dilute solutions in water may be flammable. May travel a considerable distance to a source of ignition and flash back to a leak or open container. See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. Burns with an invisible flame. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, resulting in a fire hazard.

In a fire, the following hazardous materials may be generated: toxic chemicals; very toxic carbon monoxide, carbon dioxide; very toxic, flammable formaldehyde.

### Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Evacuate downwind locations. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient. Distant ignition and flashback are possible.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Conditions for Safe Storage

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision:

Page 04 of 09

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Methanol	200 ppm	250 ppm	200 ppm	250 ppm		

### Appropriate Engineering Controls

General ventilation is usually adequate. For large scale use of this product: do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. Provide safety shower in work area, if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Nitrile rubber.

#### Respiratory Protection

Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	Available in these colours: Clear, Yellow, Gold, Red, Blue, Green, Amber, Pink, Orange, Purple, White, Brown.
<b>Odour</b>	Pungent
<b>Odour Threshold</b>	Not available
<b>pH</b>	8 - 11 (100% solution)
<b>Melting Point/Freezing Point</b>	Not available (melting); Not available (freezing)
<b>Initial Boiling Point/Range</b>	Not available
<b>Flash Point</b>	24 - 29 °C (75 - 84 °F) (closed cup)
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	0.93 - 0.97 at 20 °C
<b>Solubility</b>	Soluble in water; Soluble in all proportions in alcohols (e.g. ethanol).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision:

Page 05 of 09

<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Liquid
<b>Molecular Weight</b>	Not available

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

None known.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Heat. Open flames, sparks, static discharge, heat and other ignition sources.

### Incompatible Materials

Slightly reactive or incompatible with the following materials: oxidizing agents (e.g. peroxides), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide).

Not corrosive to metals.

### Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; very toxic, flammable formaldehyde.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Ingestion; eye contact; skin contact; inhalation.

### Acute Toxicity

Chemical Name	LC50	LDLo - Oral	LD50 (dermal)
Methanol	64000 ppm (rat) (4-hour exposure)	143 mg/kg Human - Male	15800 mg/kg (rabbit)

Inhalation ATE: 128,000 mg/L 4hr

Oral ATE: 286mg/kg

Dermal ATE: 31600 mg/kg

### Skin Corrosion/Irritation

Human experience shows very mild irritation.

### Serious Eye Damage/Irritation

Animal tests show serious eye irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Toxic, can cause death based on human experience. At high concentrations depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness.

#### Skin Absorption

Harmful based on human experience. Can cause effects as described for inhalation. A severe exposure can cause unconsciousness.

### Ingestion

Toxic, can cause death depression of the central nervous system, impaired vision and blindness. In some cases, there may be delayed effects on the nervous system. Symptoms may include headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure may cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures.

### Aspiration Hazard

Not known to be an aspiration hazard.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

If swallowed: liver function tests may show abnormal results. May cause

If inhaled: effects on the central nervous system. Symptoms may include restlessness, reduced ability to think, muscle tremors, memory loss and personality changes.

May cause Following skin contact: dermatitis. Symptoms may include dry, red, cracked skin (dermatitis).

### Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Human experience shows an allergic skin reaction (skin sensitization) in rare cases following exposure at work.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Methanol	Not Listed	Not designated	Not Listed	Not Listed

May cause cancer based on animal studies.

### Reproductive Toxicity

#### Development of Offspring

Animal studies show effects on the offspring. If inhaled: known to cause: decreased weight, birth defects. Teratogenic(external, soft tissue and skeletal defects) embryotoxic (late resorptions).

#### Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

#### Effects on or via Lactation

May cause effects on or via lactation. Can transfer to mother's milk. May cause harm to breastfed babies.

### Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available.

### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS.

This section is not required by OSHA HCS 2012.

### Ecotoxicity

#### Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Methanol	15400 mg/L (Lepomis macrochirus (bluegill); 96-hour)	10000 mg/L (Daphnia magna (water flea); 48-hour)		

#### Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Methanol	7900 mg/L (Lepomis)			

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision:

Page 07 of 09

macrochirus (bluegill); 200-hrs			
------------------------------------	--	--	--

**Persistence and Degradability**

Degrades rapidly based on quantitative tests.

**Bioaccumulative Potential**

This product and its degradation products are not expected to bioaccumulate.

**Mobility in Soil**

No information was located.

**Other Adverse Effects**

There is no information available.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal Methods**

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1230	METHANOL SOLUTION	3 (6.1)	II
US DOT	1230	METHANOL SOLUTION	3 (6.1)	II

**Environmental Hazards**

Not applicable

**Special Precautions**

Please note: In containers of 450L or less, this product meets the requirements for exemption under TDG regulation special provisions, part 1, section 1.36b: Class 3, Flammable liquids: Alcohol Exemption.  
In containers of 1 L (1Kg) this product is qualified as a "consumer commodity" ORM-D under DOT

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Proof of Dangerous Goods Classification**

**Date of Classification** July 06, 2017  
**Technical Name** METHANOL SOLUTION  
**Classification** 3 (6.1) PG II  
**Classification Method** Flashpoint as per Section 9. LDLo in humans as per Section 11.

**SECTION 15. REGULATORY INFORMATION****Safety, Health and Environmental Regulations****Canada****Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

All ingredients are listed on the DSL/NDSL.

**USA****Toxic Substances Control Act (TSCA) Section 8(b)**

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1  
Date of Preparation: September 06, 2017  
Date of Last Revision:

SDS No.: 1775

Page 08 of 09

All ingredients are listed on the TSCA Inventory.

### Additional USA Regulatory Lists

California Proposition 65:

WARNING: Reproductive Harm - [www.P65Warnings.ca.gov/product](http://www.P65Warnings.ca.gov/product).

### Custom Regulatory 1

Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Compliance and Regulatory Department

**Phone No.** 905-878-5544

**Date of Preparation** September 06, 2017

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Additional Information** We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative.

Please send us your request by visiting our website at [www.recochem.com](http://www.recochem.com).

Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.

### Disclaimer

Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

---

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision:

Page 09 of 09

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 1 of 11

## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

Product identifier used on the label

: Xylene

Product Code(s) : None assigned.

Recommended use of the chemical and restrictions on use

: Industrial solvent.  
Use pattern: Professional use only  
Recommended restrictions None known.

Chemical family : Mixture of petroleum hydrocarbons.

Name, address, and telephone number  
of the supplier:

Comet Chemical Company Ltd.  
3463 Thomas Street

Name, address, and telephone number of  
the manufacturer:

Refer to supplier

Innisfill, ON, Canada  
L9S 3W4

Supplier's Telephone # : 705-436-5580

24 Hr. Emergency Tel # : TERRRAPURE ENVIRONMENTAL : 800-567-7455

### SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear, colorless liquid. Hydrocarbon odour.

Most important hazards: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Flammable Liquids - Category 3  
Skin Irritation - Category 2  
Eye Damage/Irritation - Category 2B  
Carcinogen - Category 2  
Reproductive Toxicity - Category 2  
Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects  
Specific Target Organ Toxicity, Single Exposure -Category 3 (respiratory)  
Aspiration Toxicity - Category 1

Label elements

Hazard pictogram(s)



Signal Word

DANGER!



Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 2 of 11

## SAFETY DATA SHEET

### Hazard statement(s)

Flammable liquid and vapour  
Causes skin irritation.  
Causes eye irritation.  
Suspected of causing cancer.  
Suspected of damaging the unborn child.  
May cause drowsiness or dizziness.  
May cause respiratory irritation.  
May be fatal if swallowed and enters airways.

### Precautionary statement(s)

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat, open flames and hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground/Bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing mist or vapours.  
Wash hands thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/clothing and eye/face protection.

If exposed or concerned: Get medical attention/advice.

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

If skin irritation occurs, get medical advice/attention.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam for extinction.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Dispose of contents/container in accordance with local regulation.

### Other hazards

Other hazards which do not result in classification:

Burning produces obnoxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	Common name and synonyms	CAS #	Concentration
Xylene	Dimethylbenzene Methyltoluene Xylol	1330-20-7	85.00
Ethylbenzene	Ethylbenzol Phenylethane	100-41-4	15.00

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 3 of 11

## SAFETY DATA SHEET

### SECTION 4. FIRST-AID MEASURES

#### Description of first aid measures

- Ingestion* : Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Inhalation* : If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Call a POISON CENTRE or doctor/physician if you feel unwell.
- Skin contact* : Immediately flush with plenty of water, while removing contaminated clothing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.
- Eye contact* : For eye contact, flush with running water for at least 15 minutes. If eye irritation persists: get medical advice/attention.

#### Most important symptoms and effects, both acute and delayed

- : Causes skin irritation. Redness, swelling, itching and dryness. May cause respiratory irritation. May cause coughing and breathing difficulties. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. May cause headache, nausea, dizziness and other symptoms of central nervous system depression. May cause eye irritation. Symptoms may include stinging and tearing. Prolonged exposure can cause central nervous system effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm. Suspected of causing cancer.

#### Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically. Aspiration hazard.. This product is a CNS depressant.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing media

- Suitable extinguishing media* : Carbon dioxide (CO<sub>2</sub>); Dry chemical; Alcohol resistant foam; Water fog.
- Unsuitable extinguishing media* : Do not use a solid water stream as it may scatter and spread fire.

#### Special hazards arising from the substance or mixture / Conditions of flammability

- : Highly flammable liquid and vapour Vapours may ignite explosively. Vapours are heavier than air and may spread along floors. Static discharge, impact, friction, and heat may ignite exposed chemical material.  
Empty containers may contain hazardous residues.

#### Flammability classification (OSHA 29 CFR 1910.106)

- : Flammable Liquids - Category 3

#### Hazardous combustion products

- : Carbon dioxide, carbon monoxide and other unidentified organic compounds.

#### Special protective equipment and precautions for firefighters

##### Protective equipment for fire-fighters

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

##### Special fire-fighting procedures

- : Do not breathe fumes or vapours. Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 4 of 11

## SAFETY DATA SHEET

- : All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.
- Methods and material for containment and cleaning up** : Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools and equipment in the clean-up process. Avoid breathing mist or vapours. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contact the proper local authorities. Refer to Section 13 for disposal of contaminated material.
- Special spill response procedures** : In case of transportation accident, contact TERRAPURE ENVIRONMENTAL at 1-800-567-7455.  
EPA/CERCLA Reportable quantity (RQ): Xylene (100 lbs / 45.4 kg) / Ethylbenzene (1000 lbs / 454 kg)

### SECTION 7. HANDLING AND STORAGE

**Precautions for safe handling**

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection. Use only in well-ventilated areas. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep away from flames and hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharges. Ground all equipment during handling.

**Conditions for safe storage**

- : Keep container tightly closed. Store in cool/well-ventilated place. Store locked up. Keep cool. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking. Empty containers may contain hazardous residues.

**Incompatible materials**

- : Acids, oxidizing agents, halogens and halogenated compounds. Metal salts.

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Limits:**

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Xylene	100 ppm	150 ppm	100 ppm (435 mg/m <sup>3</sup> )	N/Av
Ethylbenzene	20 ppm	N/Av	100 ppm (435 mg/m <sup>3</sup> )	N/Av

**Exposure controls**

**Ventilation and engineering measures**

- : Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use explosion-proof equipment. In case of insufficient ventilation wear suitable respiratory equipment.

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 5 of 11

## SAFETY DATA SHEET

- Respiratory protection** : If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Advice should be sought from respiratory protection specialists.
- Skin protection** : Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye / face protection** : Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles
- Other protective equipment** : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.
- General hygiene considerations** : Do not breathe mist or vapor. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not take contaminated clothing home. Handle in accordance with good industrial hygiene and safety practice.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : Clear colourless liquid.
- Odour** : Hydrocarbon odour.
- Odour threshold** : 1-20
- pH** : No information available.
- Melting/Freezing point** : -542 °C (-65.2°F)
- Initial boiling point and boiling range** : 139-142°C (282.2-287.6°F )
- Flash point** : 426-29°C (78.8-84.2°F)
- Flashpoint (Method)** : Cleveland closed cup
- Evaporation rate (BuAe = 1)** : 2
- Flammability (solid, gas)** : Not applicable.
- Lower flammable limit (% by vol.)** : 1%
- Upper flammable limit (% by vol.)** : 7%
- Oxidizing properties** : None known.
- Explosive properties** : Not explosive
- Vapour pressure** : 2.5mm Hg
- Vapour density** : 3.66
- Relative density / Specific gravity** : 0.86 @ 20°C
- Solubility in water** : Insoluble.
- Other solubility(ies)** : Soluble in most organic solvents.
- Partition coefficient: n-octanol/water or Coefficient of water/oil distribution** : Not available.
- Auto-ignition temperature** : 464-500 °C (867.2-932 °F)
- Decomposition temperature** : No information available.
- Viscosity** : 0.33 mPa.s @ 25°C
- Volatiles (% by weight)** : 100%
- Volatile organic Compounds (VOC's)** : Not available.
- Absolute pressure of container** : Not applicable.
- Flame projection length** : Not applicable.

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 6 of 11

## SAFETY DATA SHEET

**Other physical/chemical comments**

: None known or reported by the manufacturer.

### SECTION 10. STABILITY AND REACTIVITY

**Reactivity** : Not normally reactive.  
**Chemical stability** : Stable under normal conditions.  
**Possibility of hazardous reactions** : Hazardous polymerization does not occur.  
**Conditions to avoid** : Open flames, sparks, high heat, direct sunlight, and close proximity to incompatible substances. Do not use in areas without adequate ventilation.  
**Incompatible materials** : Acids, oxidizing agents, halogens and halogenated compounds. Metal salts.  
**Hazardous decomposition products** : None known, refer to hazardous combustion products in Section 5.

### SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure:**

**Routes of entry inhalation** : YES  
**Routes of entry skin & eye** : YES  
**Routes of entry Ingestion** : YES  
**Routes of exposure skin absorption** : YES

**Potential Health Effects:**

**Signs and symptoms of short-term (acute) exposure**

*Sign and symptoms Inhalation*

: May cause respiratory tract irritation. Coughing, difficulty breathing, and tightness in chest. May cause headache, nausea, dizziness and other symptoms of central nervous system depression.

*Sign and symptoms Ingestion*

: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

*Sign and symptoms skin*

: Causes skin irritation. Symptoms may include redness, edema, drying defatting and cracking of the skin.

*Sign and symptoms eyes*

: May cause eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision.

**Potential Chronic Health Effects**

: Prolonged exposure can cause central nervous system effects.

**Mutagenicity**

: Not expected to be mutagenic in humans.

**Carcinogenicity**

: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Suspected of causing cancer. Contains Ethylbenzene. Ethylbenzene is classified as carcinogenic by IARC (Group 2B) and ACGIH (Category A3).

**Reproductive effects & Teratogenicity**

: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Reproductive Toxicity - Category 2 Suspected of damaging the unborn child. Contains Toluene. Toluene may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 7 of 11

## SAFETY DATA SHEET

**Sensitization to material** : Not expected to be a skin or respiratory sensitizer.

**Specific target organ effects** : This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012). Classification:  
 Specific target organ toxicity, single exposure - Category 3.  
 May cause drowsiness or dizziness.  
 May cause respiratory irritation.

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Medical conditions aggravated by overexposure**

: Pre-existing skin, eye, respiratory and central nervous system disorders.

**Synergistic materials**

: No information available.

**Toxicological data**

: See below for toxicological data on the substance.

Chemical name	LC <sub>50</sub> (4hr)	LD <sub>50</sub>	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Xylene	6350 ppm (27.6 mg/L) (vapours)	3253 mg/kg	12 180 mg/kg
Ethylbenzene	4000 ppm (17.4 mg/L) (vapour)	3500 mg/kg	15 380 mg/kg

**Other important toxicological hazards**

: None reported by the manufacturer.

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : Toxic to aquatic life with long lasting effects. Do not allow material to contaminate ground water system.  
 See the following tables for the substance's ecotoxicity data.

**Ecotoxicity data:**

Ingredients	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Xylene	1330-20-7	8.2 mg/L (Rainbow trout)	N/Av	None.
Ethylbenzene	100-41-4	4.2 mg/L (Rainbow trout)	1.13 mg/L/30 days	None.

Ingredients	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Xylene	1330-20-7	3.2 - 9.56 mg/L (Daphnia magna)	N/Av	None.
Ethylbenzene	100-41-4	1.81 mg/L (Daphnia magna)	N/Av	None.

Ingredients	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Xylene	1330-20-7	3.2 - 4.8 mg/L/72hr (Green algae)	N/Av	None.
Ethylbenzene	100-41-4	3.6 mg/L/96hr (Green algae)	3.4 mg/L/96hr	None.

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 8 of 11

**SAFETY DATA SHEET**

**Persistence and degradability**

: Not readily biodegradable.

**Bioaccumulation potential**

: No information available.

Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Xylene (CAS 1330-20-7)	3.12 - 3.2	0.6 - 15
Ethylbenzene (CAS 100-41-4)	3.15	15 species: fish

**Mobility in soil** : The product itself has not been tested.

**Other Adverse Environmental effects**

: None known.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Handling for Disposal**

: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

**Methods of Disposal**

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

**RCRA**

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

**SECTION 14. TRANSPORTATION INFORMATION**

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1307	XYLENES	3	III	
TDG Additional information	US CERCLA Reportable quantity (RQ): Xylene (100 lbs / 45.4 kg) May be shipped as a Limited Quantity according to packaging section 173.150.				
TDG	UN1307	XYLENES	3	III	
TDG Additional information	May be shipped as Limited Quantity, consult the TDG regulations for details.				
IMDG	UN1307	Xylenes	3	III	 
IMDG Additional information	May be shipped as Limited Quantity. Consult the IMDG regulations for details.				
ICAO/IATA	UN1307	Xylenes	3	III	



Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 9 of 11

## SAFETY DATA SHEET

<b>ICAO/IATA Additional information</b>	Refer to ICAO/IATA Packing Instruction
---	--

**Special precautions for user** : Appropriate advice on safety must accompany the package.

**Environmental hazards** : Toxic to aquatic life with long lasting effects. See ECOLOGICAL INFORMATION, Section 12.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

: This information is not available.

### SECTION 15 - REGULATORY INFORMATION

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity (RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Xylene	1330-20-7	Yes	100 lb/ 45.4 kg	None.	Yes	1%
Ethylbenzene	100-41-4	Yes	1000 lb/ 454 kg	None.	Yes	0.1%

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**US State Right to Know Laws:**

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Xylene	1330-20-7	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Ethylbenzene	100-41-4	Yes	Cancer	Yes	Yes	Yes	Yes	Yes	Yes

**Canadian Information:**

Canadian Environmental Protection Act (CEPA): . All ingredients are present on the DSL.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

**International Information:**

Components listed below are present on the following International Inventory list:



Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 10 of 11

### SAFETY DATA SHEET

Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECS	NewZealand IOC
Xylene	1330-20-7	215-535-7	Present	Present	(3)-60; (3)-3	KE-35427	Present	HSR000983
Ethylbenzene	100-41-4	202-649-4	Present	Present	(3)-60; (3)-28	KE-13532	Present	HSR001151

#### SECTION 16. OTHER INFORMATION

Legend

- : ACGIH: American Conference of Governmental Industrial Hygienists
- AICS: Australian Inventory of Chemical Substances
- ATE: Acute Toxicity Estimate
- CA: California
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CSA: Canadian Standards Association
- DOT: Department of Transportation
- ECHA: European Chemicals Agency
- ECOTOX: U.S. EPA Ecotoxicology Database
- EINECS: European Inventory of Existing Commercial chemical Substances
- ENCS: Existing and New Chemical Substances
- EPA: Environmental Protection Agency
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- IBC: Intermediate Bulk Container
- IECSC: Inventory of Existing Chemical Substances
- IMDG: International Maritime Dangerous Goods
- IOC: Inventory of Chemicals
- IUCLID: International Uniform Chemical Information Database
- KECI: Korean Existing Chemicals Inventory
- KECL: Korean Existing Chemicals List
- LC: Lethal Concentration
- LD: Lethal Dose
- MA: Massachusetts
- MN: Minnesota
- N/Ap: Not Applicable
- N/Av: Not Available
- NIOSH: National Institute of Occupational Safety and Health
- NJ: New Jersey
- NOEC: No observable effect concentration
- NTP: National Toxicology Program
- OECD: Organisation for Economic Co-operation and Development
- OSHA: Occupational Safety and Health Administration
- PA: Pennsylvania
- PEL: Permissible exposure limit
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- RCRA: Resource Conservation and Recovery Act
- RI: Rhode Island
- RTECS: Registry of Toxic Effects of Chemical Substances
- SARA: Superfund Amendments and Reauthorization Act
- SDS: Safety Data Sheet / Material Safety Data Sheet
- STEL: Short Term Exposure Limit
- TDG: Canadian Transportation of Dangerous Goods Act & Regulations
- TLV: Threshold Limit Values
- TSCA: Toxic Substance Control Act
- TWA: Time Weighted Average
- WHMIS: Workplace Hazardous Materials Identification System

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 11 of 11

## SAFETY DATA SHEET

- References** :
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2015.
  2. International Agency for Research on Cancer Monographs, searched 2015.
  3. Canadian Centre for Occupational Health and Safety, CCHInfoWeb databases, 2015 (Chempendium, HSDB and RTECs).
  4. Material Safety Data Sheets from manufacturer.
  5. US EPA Title III List of Lists - 2015 version.
  6. California Proposition 65 List -2015 version

**Preparation Date (mm/dd/yyyy)**

: 09/25/2015

**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

<p><b>Prepared for:</b> Comet Chemical Company Ltd. 3463 Thomas Street Innisfil, ON L9S 3W4 Information (M-F 8:00-5:00): 705-436-5580 <a href="http://www.cometchemical.com">www.cometchemical.com</a></p>	
<p><b>Prepared by:</b> ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada) <a href="http://www.thecompliancecenter.com">http://www.thecompliancecenter.com</a></p>	

### DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Comet Chemical Company Ltd., and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Comet Chemical Company Ltd. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this Safety Data Sheet does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Comet Chemical Company Ltd.

END OF DOCUMENT

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 1 of 11

## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

Product identifier used on the label

: Xylene

Product Code(s) : None assigned.

Recommended use of the chemical and restrictions on use

: Industrial solvent.  
Use pattern: Professional use only  
Recommended restrictions None known.

Chemical family : Mixture of petroleum hydrocarbons.

Name, address, and telephone number  
of the supplier:

Comet Chemical Company Ltd.  
3463 Thomas Street

Name, address, and telephone number of  
the manufacturer:

Refer to supplier

Innisfill, ON, Canada  
L9S 3W4

Supplier's Telephone # : 705-436-5580

24 Hr. Emergency Tel # : TERRRAPURE ENVIRONMENTAL : 800-567-7455

### SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear, colorless liquid. Hydrocarbon odour.

Most important hazards: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Flammable Liquids - Category 3  
Skin Irritation - Category 2  
Eye Damage/Irritation - Category 2B  
Carcinogen - Category 2  
Reproductive Toxicity - Category 2  
Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects  
Specific Target Organ Toxicity, Single Exposure -Category 3 (respiratory)  
Aspiration Toxicity - Category 1

Label elements

Hazard pictogram(s)



Signal Word

DANGER!



Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 2 of 11

## SAFETY DATA SHEET

### Hazard statement(s)

Flammable liquid and vapour  
Causes skin irritation.  
Causes eye irritation.  
Suspected of causing cancer.  
Suspected of damaging the unborn child.  
May cause drowsiness or dizziness.  
May cause respiratory irritation.  
May be fatal if swallowed and enters airways.

### Precautionary statement(s)

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat, open flames and hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground/Bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing mist or vapours.  
Wash hands thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/clothing and eye/face protection.

If exposed or concerned: Get medical attention/advice.

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

If skin irritation occurs, get medical advice/attention.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam for extinction.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Dispose of contents/container in accordance with local regulation.

### Other hazards

Other hazards which do not result in classification:

Burning produces obnoxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	Common name and synonyms	CAS #	Concentration
Xylene	Dimethylbenzene Methyltoluene Xylol	1330-20-7	85.00
Ethylbenzene	Ethylbenzol Phenylethane	100-41-4	15.00

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 3 of 11

## SAFETY DATA SHEET

### SECTION 4. FIRST-AID MEASURES

**Description of first aid measures**

- Ingestion* : Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Inhalation* : If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Call a POISON CENTRE or doctor/physician if you feel unwell.
- Skin contact* : Immediately flush with plenty of water, while removing contaminated clothing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.
- Eye contact* : For eye contact, flush with running water for at least 15 minutes. If eye irritation persists: get medical advice/attention.

**Most important symptoms and effects, both acute and delayed**

- : Causes skin irritation. Redness, swelling, itching and dryness. May cause respiratory irritation. May cause coughing and breathing difficulties. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. May cause headache, nausea, dizziness and other symptoms of central nervous system depression. May cause eye irritation. Symptoms may include stinging and tearing. Prolonged exposure can cause central nervous system effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm. Suspected of causing cancer.

**Indication of any immediate medical attention and special treatment needed**

- : Treat symptomatically. Aspiration hazard.. This product is a CNS depressant.

### SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

- Suitable extinguishing media* : Carbon dioxide (CO<sub>2</sub>); Dry chemical; Alcohol resistant foam; Water fog.
- Unsuitable extinguishing media* : Do not use a solid water stream as it may scatter and spread fire.

**Special hazards arising from the substance or mixture / Conditions of flammability**

- : Highly flammable liquid and vapour Vapours may ignite explosively. Vapours are heavier than air and may spread along floors. Static discharge, impact, friction, and heat may ignite exposed chemical material.  
Empty containers may contain hazardous residues.

**Flammability classification (OSHA 29 CFR 1910.106)**

- : Flammable Liquids - Category 3

**Hazardous combustion products**

- : Carbon dioxide, carbon monoxide and other unidentified organic compounds.

**Special protective equipment and precautions for firefighters**

*Protective equipment for fire-fighters*

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

*Special fire-fighting procedures*

- : Do not breathe fumes or vapours. Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 4 of 11

## SAFETY DATA SHEET

- : All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.
- Methods and material for containment and cleaning up** : Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools and equipment in the clean-up process. Avoid breathing mist or vapours. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contact the proper local authorities. Refer to Section 13 for disposal of contaminated material.
- Special spill response procedures** : In case of transportation accident, contact TERRAPURE ENVIRONMENTAL at 1-800-567-7455.  
EPA/CERCLA Reportable quantity (RQ): Xylene (100 lbs / 45.4 kg) / Ethylbenzene (1000 lbs / 454 kg)

### SECTION 7. HANDLING AND STORAGE

**Precautions for safe handling**

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection. Use only in well-ventilated areas. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep away from flames and hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharges. Ground all equipment during handling.

**Conditions for safe storage**

- : Keep container tightly closed. Store in cool/well-ventilated place. Store locked up. Keep cool. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking. Empty containers may contain hazardous residues.

**Incompatible materials**

- : Acids, oxidizing agents, halogens and halogenated compounds. Metal salts.

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Limits:**

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Xylene	100 ppm	150 ppm	100 ppm (435 mg/m <sup>3</sup> )	N/Av
Ethylbenzene	20 ppm	N/Av	100 ppm (435 mg/m <sup>3</sup> )	N/Av

**Exposure controls**

**Ventilation and engineering measures**

- : Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use explosion-proof equipment. In case of insufficient ventilation wear suitable respiratory equipment.

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 5 of 11

## SAFETY DATA SHEET

- Respiratory protection** : If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Advice should be sought from respiratory protection specialists.
- Skin protection** : Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye / face protection** : Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles
- Other protective equipment** : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.
- General hygiene considerations** : Do not breathe mist or vapor. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not take contaminated clothing home. Handle in accordance with good industrial hygiene and safety practice.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : Clear colourless liquid.
- Odour** : Hydrocarbon odour.
- Odour threshold** : 1-20
- pH** : No information available.
- Melting/Freezing point** : -542 °C (-65.2°F)
- Initial boiling point and boiling range** : 139-142°C (282.2-287.6°F )
- Flash point** : 426-29°C (78.8-84.2°F)
- Flashpoint (Method)** : Cleveland closed cup
- Evaporation rate (BuAe = 1)** : 2
- Flammability (solid, gas)** : Not applicable.
- Lower flammable limit (% by vol.)** : 1%
- Upper flammable limit (% by vol.)** : 7%
- Oxidizing properties** : None known.
- Explosive properties** : Not explosive
- Vapour pressure** : 2.5mm Hg
- Vapour density** : 3.66
- Relative density / Specific gravity** : 0.86 @ 20°C
- Solubility in water** : Insoluble.
- Other solubility(ies)** : Soluble in most organic solvents.
- Partition coefficient: n-octanol/water or Coefficient of water/oil distribution** : Not available.
- Auto-ignition temperature** : 464-500 °C (867.2-932 °F)
- Decomposition temperature** : No information available.
- Viscosity** : 0.33 mPa.s @ 25°C
- Volatiles (% by weight)** : 100%
- Volatile organic Compounds (VOC's)** : Not available.
- Absolute pressure of container** : Not applicable.
- Flame projection length** : Not applicable.

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 6 of 11

## SAFETY DATA SHEET

**Other physical/chemical comments**

: None known or reported by the manufacturer.

### SECTION 10. STABILITY AND REACTIVITY

- Reactivity** : Not normally reactive.
- Chemical stability** : Stable under normal conditions.
- Possibility of hazardous reactions** : Hazardous polymerization does not occur.
- Conditions to avoid** : Open flames, sparks, high heat, direct sunlight, and close proximity to incompatible substances. Do not use in areas without adequate ventilation.
- Incompatible materials** : Acids, oxidizing agents, halogens and halogenated compounds. Metal salts.
- Hazardous decomposition products** : None known, refer to hazardous combustion products in Section 5.

### SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure:**

- Routes of entry inhalation** : YES
- Routes of entry skin & eye** : YES
- Routes of entry Ingestion** : YES
- Routes of exposure skin absorption** : YES

**Potential Health Effects:**

**Signs and symptoms of short-term (acute) exposure**

*Sign and symptoms Inhalation*

- : May cause respiratory tract irritation. Coughing, difficulty breathing, and tightness in chest. May cause headache, nausea, dizziness and other symptoms of central nervous system depression.

*Sign and symptoms Ingestion*

- : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

*Sign and symptoms skin*

- : Causes skin irritation. Symptoms may include redness, edema, drying defatting and cracking of the skin.

*Sign and symptoms eyes*

- : May cause eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision.

**Potential Chronic Health Effects**

- : Prolonged exposure can cause central nervous system effects.

**Mutagenicity**

- : Not expected to be mutagenic in humans.

**Carcinogenicity**

- : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Suspected of causing cancer. Contains Ethylbenzene. Ethylbenzene is classified as carcinogenic by IARC (Group 2B) and ACGIH (Category A3).

**Reproductive effects & Teratogenicity**

- : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Reproductive Toxicity - Category 2 Suspected of damaging the unborn child. Contains Toluene. Toluene may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 7 of 11

## SAFETY DATA SHEET

**Sensitization to material** : Not expected to be a skin or respiratory sensitizer.

**Specific target organ effects** : This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012). Classification:  
 Specific target organ toxicity, single exposure - Category 3.  
 May cause drowsiness or dizziness.  
 May cause respiratory irritation.

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Medical conditions aggravated by overexposure**

: Pre-existing skin, eye, respiratory and central nervous system disorders.

**Synergistic materials**

: No information available.

**Toxicological data**

: See below for toxicological data on the substance.

Chemical name	LC <sub>50</sub> (4hr)	LD <sub>50</sub>	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Xylene	6350 ppm (27.6 mg/L) (vapours)	3253 mg/kg	12 180 mg/kg
Ethylbenzene	4000 ppm (17.4 mg/L) (vapour)	3500 mg/kg	15 380 mg/kg

**Other important toxicological hazards**

: None reported by the manufacturer.

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : Toxic to aquatic life with long lasting effects. Do not allow material to contaminate ground water system.  
 See the following tables for the substance's ecotoxicity data.

**Ecotoxicity data:**

Ingredients	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Xylene	1330-20-7	8.2 mg/L (Rainbow trout)	N/Av	None.
Ethylbenzene	100-41-4	4.2 mg/L (Rainbow trout)	1.13 mg/L/30 days	None.

Ingredients	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Xylene	1330-20-7	3.2 - 9.56 mg/L (Daphnia magna)	N/Av	None.
Ethylbenzene	100-41-4	1.81 mg/L (Daphnia magna)	N/Av	None.

Ingredients	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Xylene	1330-20-7	3.2 - 4.8 mg/L/72hr (Green algae)	N/Av	None.
Ethylbenzene	100-41-4	3.6 mg/L/96hr (Green algae)	3.4 mg/L/96hr	None.

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 8 of 11

**SAFETY DATA SHEET**

**Persistence and degradability**

: Not readily biodegradable.

**Bioaccumulation potential**

: No information available.

Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Xylene (CAS 1330-20-7)	3.12 - 3.2	0.6 - 15
Ethylbenzene (CAS 100-41-4)	3.15	15 species: fish

**Mobility in soil** : The product itself has not been tested.

**Other Adverse Environmental effects**

: None known.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Handling for Disposal**

: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

**Methods of Disposal**

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

**RCRA**

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

**SECTION 14. TRANSPORTATION INFORMATION**

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1307	XYLENES	3	III	
TDG Additional information	US CERCLA Reportable quantity (RQ): Xylene (100 lbs / 45.4 kg) May be shipped as a Limited Quantity according to packaging section 173.150.				
TDG	UN1307	XYLENES	3	III	
TDG Additional information	May be shipped as Limited Quantity, consult the TDG regulations for details.				
IMDG	UN1307	Xylenes	3	III	 
IMDG Additional information	May be shipped as Limited Quantity. Consult the IMDG regulations for details.				
ICAO/IATA	UN1307	Xylenes	3	III	



Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 9 of 11

### SAFETY DATA SHEET

ICAO/IATA Additional information	Refer to ICAO/IATA Packing Instruction
----------------------------------	--

Special precautions for user : Appropriate advice on safety must accompany the package.

Environmental hazards : Toxic to aquatic life with long lasting effects. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : This information is not available.

#### SECTION 15 - REGULATORY INFORMATION

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity (RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Xylene	1330-20-7	Yes	100 lb/ 45.4 kg	None.	Yes	1%
Ethylbenzene	100-41-4	Yes	1000 lb/ 454 kg	None.	Yes	0.1%

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**US State Right to Know Laws:**

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Xylene	1330-20-7	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Ethylbenzene	100-41-4	Yes	Cancer	Yes	Yes	Yes	Yes	Yes	Yes

**Canadian Information:**

Canadian Environmental Protection Act (CEPA): . All ingredients are present on the DSL.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

**International Information:**

Components listed below are present on the following International Inventory list:



Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 10 of 11

**SAFETY DATA SHEET**

Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Xylene	1330-20-7	215-535-7	Present	Present	(3)-60; (3)-3	KE-35427	Present	HSR000983
Ethylbenzene	100-41-4	202-649-4	Present	Present	(3)-60; (3)-28	KE-13532	Present	HSR001151

**SECTION 16. OTHER INFORMATION**

- Legend :
- ACGIH: American Conference of Governmental Industrial Hygienists
  - AICS: Australian Inventory of Chemical Substances
  - ATE: Acute Toxicity Estimate
  - CA: California
  - CAS: Chemical Abstract Services
  - CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
  - CFR: Code of Federal Regulations
  - CSA: Canadian Standards Association
  - DOT: Department of Transportation
  - ECHA: European Chemicals Agency
  - ECOTOX: U.S. EPA Ecotoxicology Database
  - EINECS: European Inventory of Existing Commercial chemical Substances
  - ENCS: Existing and New Chemical Substances
  - EPA: Environmental Protection Agency
  - HSDB: Hazardous Substances Data Bank
  - IARC: International Agency for Research on Cancer
  - IBC: Intermediate Bulk Container
  - IECSC: Inventory of Existing Chemical Substances
  - IMDG: International Maritime Dangerous Goods
  - IOC: Inventory of Chemicals
  - IUCLID: International Uniform Chemical Information Database
  - KECI: Korean Existing Chemicals Inventory
  - KECL: Korean Existing Chemicals List
  - LC: Lethal Concentration
  - LD: Lethal Dose
  - MA: Massachusetts
  - MN: Minnesota
  - N/Ap: Not Applicable
  - N/Av: Not Available
  - NIOSH: National Institute of Occupational Safety and Health
  - NJ: New Jersey
  - NOEC: No observable effect concentration
  - NTP: National Toxicology Program
  - OECD: Organisation for Economic Co-operation and Development
  - OSHA: Occupational Safety and Health Administration
  - PA: Pennsylvania
  - PEL: Permissible exposure limit
  - PICCS: Philippine Inventory of Chemicals and Chemical Substances
  - RCRA: Resource Conservation and Recovery Act
  - RI: Rhode Island
  - RTECS: Registry of Toxic Effects of Chemical Substances
  - SARA: Superfund Amendments and Reauthorization Act
  - SDS: Safety Data Sheet / Material Safety Data Sheet
  - STEL: Short Term Exposure Limit
  - TDG: Canadian Transportation of Dangerous Goods Act & Regulations
  - TLV: Threshold Limit Values
  - TSCA: Toxic Substance Control Act
  - TWA: Time Weighted Average
  - WHMIS: Workplace Hazardous Materials Identification System

Xylene

SDS Preparation Date (mm/dd/yyyy): 09/25/2015

Page 11 of 11

## SAFETY DATA SHEET

- References** :
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2015.
  2. International Agency for Research on Cancer Monographs, searched 2015.
  3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2015 (Chempendium, HSDB and RTECs).
  4. Material Safety Data Sheets from manufacturer.
  5. US EPA Title III List of Lists - 2015 version.
  6. California Proposition 65 List -2015 version

**Preparation Date (mm/dd/yyyy)**

: 09/25/2015

**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

<p><b>Prepared for:</b> Comet Chemical Company Ltd. 3463 Thomas Street Innisfil, ON L9S 3W4 Information (M-F 8:00-5:00): 705-436-5580 <a href="http://www.cometchemical.com">www.cometchemical.com</a></p>	
<p><b>Prepared by:</b> ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada) <a href="http://www.thecompliancecenter.com">http://www.thecompliancecenter.com</a></p>	

### DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Comet Chemical Company Ltd., and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Comet Chemical Company Ltd. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this Safety Data Sheet does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Comet Chemical Company Ltd.

END OF DOCUMENT

# SAFETY DATA SHEET

## TRANSIT AW HYDRAULIC OILS 32, 46, 68



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : TRANSIT AW HYDRAULIC OILS 32, 46, 68  
**Product Code(s)** : 43312, 43412, 43812

#### 1.2 Product Usage

**Recommended Usage** : Antiwear Hydraulic Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
BASE OIL SEVERELY REFINED	64742-65-0	99.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 1.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as a Antiwear Hydraulic Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed	5mg/m3	

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 30 cst
Viscosity @ 100C	: 5 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.

## Section 13 - Disposal Considerations

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-65-0

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

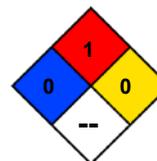
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA:** **HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Universal Synthetic LV Dexron VI ATF  
**Product Code(s)** : 51612

#### 1.2 Product Usage

**Recommended Usage** : Transmission Fluid  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	66.0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC	64742-55-8	22.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 12.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Transmission Fluid

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-55-8	Distillates, petroleum, hydrotreated, light paraffinic	5mg/m3	NLM-CI
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 185C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.85
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 34 cst
Viscosity @ 100C	: 6 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-55-8	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-55-8

64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.

**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

64742-55-8

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

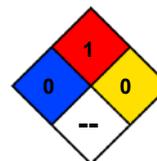
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC dexos1/SN/SN PLUS GF-5



**TRANSIT TOUGH SYNTHETIC DEXOS1/SN/SN PLUS GF-5** motor oils are the latest iteration in advanced protection for your gasoline-fueled GM vehicles. Available in 0W-20 and 5W-30 viscosities, these products are designed to inhibit LSPI (low speed pre-ignition), an engine event which can cause premature engine wear. These premium quality motor oils are specifically engineered for turbocharged direct-injected gasoline vehicles operating in low-speed and high load driving conditions. These lubricants are designed to perform under extreme conditions, have excellent cold temperature properties, resist thermal breakdown, and exceed the performance requirements of API SN, SN PLUS and ILSAC GF-5 licensing categories. **TRANSIT TOUGH SYNTHETIC DEXOS1/SN/SN PLUS GF-5** motor oils are licensed and approved by General Motors, dexos1™ Gen 2 License Number #D10546HH119.

**TRANSIT TOUGH SYNTHETIC DEXOS1/SN/GF-5** motor oils are recommended for use where GM dexos1™ Gen 2 is required, API SN, SN PLUS ILSAC GF-5, Ford M2C946-A (5W-30) M2C947-A (0W-20), Daimler Chrysler MS-6395. The 0W-20 viscosity is recommended for GM vehicles previously requiring dexos1™ 5W-20.

#### TYPICAL PROPERTIES

PROPERTY	0W-20	5W-30
Product Code	57912	59312
Specific Gravity	.845	.850
Viscosity, cSt @ 100°C	8.1	10.9
Viscosity, cSt @ 40°C	42.8	62.1
Viscosity, CCS cP @ (°C)	5459 (-35)	5000 (-30)
High Temp/High Shear Viscosity, cP @ 150°C	2.6	3.2
Viscosity Index	166	169
Flash Point, °C	227	227
Pour Point, °C	-51	-45
Zinc, Wt. (%)	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077
Calcium, Wt. (%)	0.135	0.135
NOACK, Wt. (%)	11	12



## PRODUCT INFORMATION

### TRANSIT TOUGH FULL SYNTHETIC 5W-20 API SN/SN PLUS ILSAC GF-5

**TRANSIT TOUGH FULL SYNTHETIC 5W-20 GF-5** is specially formulated using synthetic base oils and high performance additive packages to provide superior performance benefits over conventional engine oils. These oils are formulated for excellent oxidation stability for long product life, superior low-temperature properties to insure protection during cold starts, lower volatility for reduced oil consumption, and excellent resistance to viscosity breakdown. **TRANSIT TOUGH FULL SYNTHETIC GF-5 MOTOR OIL** meets the most demanding lubrication requirements for today's naturally aspirated, turbo-charged and super-charged gasoline fueled and flex-fueled engines. These oils exceed the requirements of ILSAC GF-5 and are "Resource Conserving" for improved fuel economy.

API SN/SN PLUS ILSAC GF-5 Resource Conserving • Ford WSS-M2C945-A (5W-20) • Chrysler MS-6395 (5W-20)

#### TYPICAL PROPERTIES

PROPERTY	5W-20
Product Code	588
Density	7.10
Viscosity, cSt @ 100°C	8.71
Viscosity, cSt @ 40°C	51.3
Viscosity, CCS cP @ -30°C	4,900
High Temp/High Shear Viscosity, cP @ 150°C	2.6
Viscosity Index	148
Flash Point, °C	220
Pour Point, °C	-45
Zinc, Wt. (%)	0.084
Phosphorous, Wt. (%)	0.074
Calcium, Wt. (%)	0.206
NOACK, Wt. (%)	12.0

# SAFETY DATA SHEET

## TRANSIT TOUGH MULTI PURPOSE ATF



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tough Multi-Purpose ATF  
**Product Code(s)** : 50512

#### 1.2 Product Usage

**Recommended Usage** : Automatic Transmission Fluid  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	92.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 8.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Transmission Fluid

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-54-7	Distillates, petroleum, hydrotreated, heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 29 cst
Viscosity @ 100C	: 6 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

(TSCA) Toxic Substance Control Act : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-5I -I

WHMIS Hazard Class : None

Canada CPR : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

302, 313, 372

: This material does not contain reportable chemicals.

311, 312

: Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

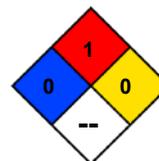
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT SUPER HD 10W



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Super HD 10W  
**Product Code(s)** : 54512

#### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	80.0
BASE OIL SEVERELY REFINED	64742-65-0	7.0
PHOSPHORODITHIOIC ACID, MIXED O,O-BIS (1,3-DIMETHYLBUTYL AND ISOPROPYL) ESTERS, ZINC SALTS	84605-29-8	1.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 12.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-65-0	Distillates, petroleum, solvent dewaxed	5mg/m3	
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 48 cst
Viscosity @ 100C	: 8 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-65-0	Distillates, petroleum, solvent dewaxed	LC50	5000mg/L	96h Oncorhynchus	IUCLID
84605-29-8	Phosphorodithioic acid, mixed O,O-bis esters, zinc salts	LC50	10mg/L	96h Pimephales	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	
84605-29-8	Phosphorodithioic acid, mixed O,O-bis esters, zinc salts	EC50	10mg/L	96h Pimephales	

## Section 13 - Disposal Consideration

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-1 ĩ Ē  
64742-54-7  
84605-29-8

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

AA

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

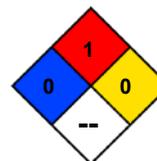
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5 MOTOR OILS

**TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5** PASSENGER CAR ENGINE OILS are specially formulated using synthetic and Group II base oils and high performance additive packages to provide superior performance in gasoline fueled and flex-fueled engines. These oils are formulated for excellent oxidation stability and low temperature properties to insure protection during cold starts. **TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5** engine oils exceed the requirements of ILSAC GF-5 and are “Resource Conserving” for improved fuel economy.

#### TYPICAL PROPERTIES

PROPERTY	5W-20	5W-30	10W-30
Product Code	59012	59112	59212
Density	7.16	7.17	7.20
Viscosity, cSt @ 100°C	8.3	10.0	10.2
Viscosity, cSt @ 40°C	47.7	59	66.1
Viscosity, CCS, cP @ °C	5,000 (-30)	5,500 (-30)	5,000(-25)
Viscosity Index	148	156	139
Sulfated Ash, %/wt.	0.84	0.84	0.85
Flash Point, PMCC °C	228	228	230
Pour Point, °C	-41	-41	-32
Zinc, Wt. (%)	0.085	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077	0.077
NOACK, Wt. (%)	12.4	12.4	10.5
HT/HS, Cp @150°C	2.6	3.0	3.1
<b>SPECIFICATION</b>			
API SN with Resource Conserving	X	X	X
ILSAC GF-5	X	X	X
CHRYSLER MS-6395	X	X	X
FORD WSS-M2C945-A	X		
FORD WSS-M2C946-A		X	

# SAFETY DATA SHEET

## TRANSIT TOUGH FULL-SYN dexos1™/SN/GF-5



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tough Full-Syn dexos1™0W-20, 5W-30 SN/GF-5  
**Product Code(s)** : 57912, 59312

#### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
1-800-424-9300  
+1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	0.0-55.0
LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED NEUTRAL OIL-BASED	72623-86-0	0.0-90.0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC	64742-55-8	0.0-30.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200)

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as an Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-55-8	Distillates, petroleum, hydrotreated, light paraffinic	5mg/m3	NLM-CI
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID
72623-86-0	Lubricating Oils, petroleum, C15-30	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 48-62 cst
Viscosity @ 100C	: 8-10 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
72623-86-0	Lubricating oils, petroleum, C15-30	Inhalation	2.18mg/L	Rat	NLM_CIP

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
72623-86-0	Lubricating oils, petroleum, C15-30	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-55-8	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

### Chemical List Status

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

64742-55-8  
64742-54-7  
72623-86-0

**WHMIS Hazard Class** : None

72623-86-0

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372**

: This material does not contain reportable chemicals.

**311, 312**

: Acute Health Hazard	No	Pressure Hazard	No	Fire Hazard	No
Chronic Health Hazard	No	Reactive Hazard	No		

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

64742-55-8

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

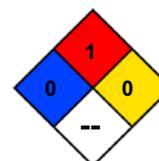
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tough Heavy Duty 15W-40 CK-4  
**Product Code(s)** : 31212

#### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	78.0
BASE OIL SEVERELY REFINED	64742-65-0	14.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 8.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-65-0	Distillates, petroleum, solvent dewaxed	5mg/m3	
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 216C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.88
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 105 cst
Viscosity @ 100C	: 14 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-65-0	Distillates, petroleum, solvent dewaxed	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Consideration

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-65-0

64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.

**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

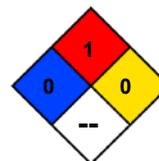
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT TOUGH SYNTHETIC BLEND MOTOR OILS



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tough Syn-Blend 5W-20, 5W30, 10W-30 SN/SN Plus GF-5  
**Product Code(s)** : 74712, 74812, 74912

#### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	10.0-70.0
CALCIUM LONG CHAIN ALKARYL SULFONATE	Proprietary	2.0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC	64742-55-8	0.0-10.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 20.0-27.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as an Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-55-8	Distillates, petroleum, hydrotreated, light paraffinic	5mg/m <sup>3</sup>	NLM-CI
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m <sup>3</sup>	IUCLID

### 8.2 Exposure Controls

**Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.

**Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.

**Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.

**Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.

**Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 48-62 cst
Viscosity @ 100C	: 8-10 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-55-8	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-55-8  
64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
 Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

64742-55-8

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

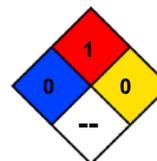
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT TRACTOR HYDRAULIC FLUID



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tractor Hydraulic Fluid  
**Product Code(s)** : 44112

#### 1.2 Product Usage

**Recommended Usage** : Tractor Hydraulic Fluid  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	86.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 14.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Tractor Hydraulic Fluid

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-54-7	Distillates, petroleum, hydrotreated, heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 195C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 50 cst
Viscosity @ 100C	: 8 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

### Chemical List Status

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

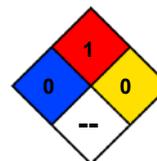
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

ADVANTAGE ® FS SAE 5W20 SN/SN PLUS/GF-5



## Section 1 - Identification

### 1.1 Product Identifiers

**Product Name** : ADVANTAGE ® FS SAE 5W20 SN/SN PLUS/GF-5  
**Product Code(s)** : 744-000, 744-055, 744-330, 744-275, 744-006, 744-001

### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
United States/Canada +1(800) 424-9300

### 1.4 Supplier Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114

**Fax** : 215-214-2118

**Email** : sds@advancedlubes.com  
technical@advancedlubes.com  
sales@advancedlubes.com

## Section 2 - Hazards Identification

### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

### 2.3 Other Hazards

**Hazards not otherwise classified (HNOC)** : Avoid prolonged or repeated contact with motor oil. Use of good hygiene practices will reduce the likelihood of potential health effects. When exposed wash areas with soap and water and launder contaminated clothing.

## Section 3 - Composition / Information on Ingredients

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	43.0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC	64742-55-8	30.0
CALCIUM LONG-CHAIN ALKARYL SULFONATE	Proprietary	2.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 25.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-55-8	Distillates, petroleum, hydrotreated light	5mg/m3	NLM_CI
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

**Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.

**Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.

**Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.

**Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.

**Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 203C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.85
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 48 cst
Viscosity @ 100C	: 8 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	Inhalation	3900mg/m3	4h Rat	NLM_CIP

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-54-7  
64742-55-8

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

64742-55-8

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

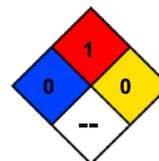
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT AW HYDRAULIC OILS 32, 46, 68



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : TRANSIT AW HYDRAULIC OILS 32, 46, 68  
**Product Code(s)** : 43312, 43412, 43812

#### 1.2 Product Usage

**Recommended Usage** : Antiwear Hydraulic Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
BASE OIL SEVERELY REFINED	64742-65-0	99.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 1.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as a Antiwear Hydraulic Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed	5mg/m3	

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 30 cst
Viscosity @ 100C	: 5 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.

## Section 13 - Disposal Considerations

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

(TSCA) Toxic Substance Control Act : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-65-0

WHMIS Hazard Class : None

Canada CPR : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

302, 313, 372 : This material does not contain reportable chemicals.  
311, 312 : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

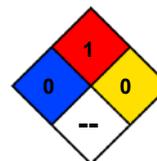
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Universal Synthetic LV Dexron VI ATF  
**Product Code(s)** : 51612

#### 1.2 Product Usage

**Recommended Usage** : Transmission Fluid  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	66.0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC	64742-55-8	22.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 12.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Transmission Fluid

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-55-8	Distillates, petroleum, hydrotreated, light paraffinic	5mg/m3	NLM-CI
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 185C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.85
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 34 cst
Viscosity @ 100C	: 6 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-55-8	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-55-8  
64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

64742-55-8

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

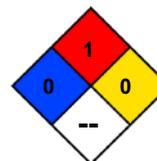
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT TOUGH MULTI PURPOSE ATF



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tough Multi-Purpose ATF  
**Product Code(s)** : 50512

#### 1.2 Product Usage

**Recommended Usage** : Automatic Transmission Fluid  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	92.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 8.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Transmission Fluid

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-54-7	Distillates, petroleum, hydrotreated, heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 29 cst
Viscosity @ 100C	: 6 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

(TSCA) Toxic Substance Control Act : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-5I -I

WHMIS Hazard Class : None

Canada CPR : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

302, 313, 372

: This material does not contain reportable chemicals.

311, 312

: Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

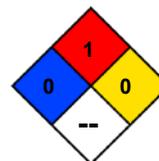
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT SUPER HD 10W



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Super HD 10W  
**Product Code(s)** : 54512

#### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	80.0
BASE OIL SEVERELY REFINED	64742-65-0	7.0
PHOSPHORODITHIOIC ACID, MIXED O,O-BIS (1,3-DIMETHYLBUTYL AND ISOPROPYL) ESTERS, ZINC SALTS	84605-29-8	1.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 12.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-65-0	Distillates, petroleum, solvent dewaxed	5mg/m3	
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 48 cst
Viscosity @ 100C	: 8 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-65-0	Distillates, petroleum, solvent dewaxed	LC50	5000mg/L	96h Oncorhynchus	IUCLID
84605-29-8	Phosphorodithioic acid, mixed O,O-bis esters, zinc salts	LC50	10mg/L	96h Pimephales	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic				
84605-29-8	Phosphorodithioic acid, mixed O,O-bis esters, zinc salts				

## Section 13 - Disposal Consideration

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-1 ĩ Ē  
64742-54-7  
84605-29-8

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
 Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

AA

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

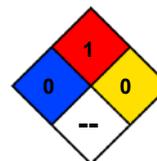
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT TOUGH FULL-SYN dexos1™/SN/GF-5



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tough Full-Syn dexos1™0W-20, 5W-30 SN/GF-5  
**Product Code(s)** : 57912, 59312

#### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
1-800-424-9300  
+1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	0.0-55.0
LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED NEUTRAL OIL-BASED	72623-86-0	0.0-90.0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC	64742-55-8	0.0-30.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200)

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as an Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-55-8	Distillates, petroleum, hydrotreated, light paraffinic	5mg/m3	NLM-CI
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID
72623-86-0	Lubricating Oils, petroleum, C15-30	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 48-62 cst
Viscosity @ 100C	: 8-10 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
72623-86-0	Lubricating oils, petroleum, C15-30	Inhalation	2.18mg/L	Rat	NLM_CIP

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
72623-86-0	Lubricating oils, petroleum, C15-30	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-55-8	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

### Chemical List Status

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

64742-55-8  
64742-54-7  
72623-86-0

**WHMIS Hazard Class** : None

72623-86-0

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372**

: This material does not contain reportable chemicals.

**311, 312**

: Acute Health Hazard	No	Pressure Hazard	No	Fire Hazard	No
Chronic Health Hazard	No	Reactive Hazard	No		

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

64742-55-8

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

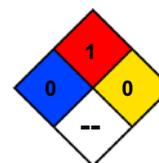
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tough Heavy Duty 15W-40 CK-4  
**Product Code(s)** : 31212

#### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	78.0
BASE OIL SEVERELY REFINED	64742-65-0	14.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 8.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-65-0	Distillates, petroleum, solvent dewaxed	5mg/m3	
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 216C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.88
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 105 cst
Viscosity @ 100C	: 14 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-65-0	Distillates, petroleum, solvent dewaxed	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Consideration

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-65-0

64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.

**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

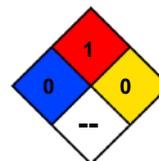
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT TOUGH SYNTHETIC BLEND MOTOR OILS



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tough Syn-Blend 5W-20, 5W30, 10W-30 SN/SN Plus GF-5  
**Product Code(s)** : 74712, 74812, 74912

#### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL	64742-54-7	10.0-70.0
CALCIUM LONG CHAIN ALKARYL SULFONATE	Proprietary	2.0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC	64742-55-8	0.0-10.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 20.0-27.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as an Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-55-8	Distillates, petroleum, hydrotreated, light paraffinic	5mg/m3	NLM-CI
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 48-62 cst
Viscosity @ 100C	: 8-10 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64747-55-8	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna
64742-55-8	Distillates, petroleum, hydrotreated light paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-55-8  
64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
 Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

64742-55-8

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

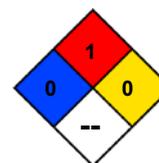
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# SAFETY DATA SHEET

## TRANSIT TRACTOR HYDRAULIC FLUID



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : Transit Tractor Hydraulic Fluid  
**Product Code(s)** : 44112

#### 1.2 Product Usage

**Recommended Usage** : Tractor Hydraulic Fluid  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	86.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 14.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** This product is designed for use as a Tractor Hydraulic Fluid

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-54-7	Distillates, petroleum, hydrotreated, heavy	5mg/m3	IUCLID

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 195C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 50 cst
Viscosity @ 100C	: 8 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h	Daphnia magna

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

### Chemical List Status

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372**

: This material does not contain reportable chemicals.

**311, 312**

: Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

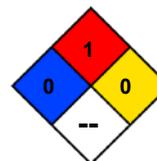
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9



## PRODUCT INFORMATION

### TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4

**TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4** is formulated to meet or exceed the latest API diesel engine oil specifications as well as the warranty and performance requirements of most diesel engine manufacturers. Designed for use in model year 2017 and newer heavy-duty diesel engines in high output service, as well as being fully backwards compatible to engines requiring any API C service class, **TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4** provides robust protection, increased oxidation stability and excellent shear stability over any previous API category. **TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4** can be used with complete success in over-the-road diesel trucks, off-highway diesel equipment, farm tractors, and passenger cars and light trucks with diesel engines, turbo-charged or non turbo-charged, where an API CK-4 or earlier C class oil is specified.

#### TYPICAL PROPERTIES

PRODUCT CODE 31212

PROPERTY	15W-40 CK-4
CCS, cP( @ -20°C)	5500
Viscosity, cSt @ 100°C	14.8
Viscosity, cSt @ 40°C	111
Viscosity Index	139
Pour Point, °C	-39
Sulfated Ash, Wt. (%)	1.0
Calcium, Wt. (%)	.254
Phosphorous, Wt. (%)	.108
Zinc, Wt. (%)	.123
Sulfur, Wt. (%)	.360
Nitrogen, Wt. (%)	.130
Total Base No., (D2896)	10.0
Flash Point, °C	229
HTHS, Viscosity, cP (D4683)	4.1
NOACK % loss (D5800)	10
<b>PERFORMANCE</b>	
API CK-4, CJ-4, CI-4, CI-4 Plus CH-4, CG-4, CF-4, CF	X
ACEA E9-16, -E7-04	X
Caterpillar ECF-3, ECT-2, ECF-1a, TO-2	X
Cummins CES 20086, 20081, 20077 & 20076	X
Detroit Diesel 93K222, 93K218, 93K214, 7SE270, PG PGOS	X
Deutz DQC III-10 LA	X
Ford WSS-M2C171-F1	X
JASO DH-2	X
Mack EOS-4.5, EO-O Premium Plus, EO-M, EO-N Premium Plus	X
MAN 3575	X
Mercedes-Benz 228.31	X
MTU MTL 5044 Type 2.1	X
Renault VI RLD-4, RLD-3	X
Volvo VDS-4.5, VDS-4, VDS-3, VDS-2	X



## PRODUCT INFORMATION

### TRANSIT AW SERIES HYDRAULIC OILS

The **TRANSIT AW SERIES** are highly refined, good quality general purpose anti-wear hydraulic oils recommended for use in a wide range of applications, including hydraulic systems, mining equipment, and moderately loaded gear sets, as well as for general purpose lubrication. These oils are designed for use in piston, gear pumps, and vane pumps used in industrial and mobile hydraulic systems. **TRANSIT AW SERIES** oils provide good wear protection for pumps, motors, and other hydraulic system components. The products have good oxidation resistance, rust and corrosion protection and foam resistance.

**TRANSIT AW SERIES HYDRAULIC OILS** meet or exceed the following specifications Dennison HF-0, HF-1, HF-2, Vickers I-286-S, Cincinnati Milacron P-68, P-69, P-70..

#### TYPICAL PROPERTIES

Product Code	43312	43412	43812
<b>PROPERTY</b>	<b>AW 32</b>	<b>AW 46</b>	<b>AW 68</b>
Gravity, API (D287)	31.5	30.0	28.5
Viscosity, cSt/40°C (D445)	32	46	68
Viscosity, cSt/100°C (D445)	5.4	6.9	8.9
Viscosity Index (D2270)	100	100	100
Oxidation Stability, TOST (D943)	5000+	5000+	5000+
Demulsibility, 54.5°C, Min	20	20	20
FZG Pass, Load Test	10	10	10
Color,( D1500)	1.0	1.5	1.5
Zinc, % wt	.046	.046	.046
Cu Corrosion, 3 Hrs @100°C	1A	1A	1A
Rust (D665)	Pass	Pass	Pass
Flash Point, COC °F (D92)	405	410	410
Pour Point °C (D97)	-38	-37	-34



## PRODUCT INFORMATION

### TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF

TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF is a specifically designed, fully synthetic, next generation licensed fluid for use in General Motors vehicles where Dexron VI is specified, as well as other ATF applications (check your viscosity requirements). Formulated for use in low viscosity ATF applications (Mercon LV, SP; Toyota WS, etc.) and designed for the latest six and seven speed automatic transmissions, **TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF** is also completely backward compatible for use in older GM vehicles that specify Dexron III H, Dexron IIIG, Dexron IID, Dexron II or Dexron fluids. This fluid has shown outstanding performance in friction durability, shear and oxidation stability and provides longer service life with superior foam resistance, minimization of deposits and consistent shift performance. This fluid is approved by General Motors under license number J-60443.

PRODUCT CODE 51612

Property	ASTM	Typical value
Density, @ 15°C	D4052	.844
Color	Red	
Flash Point, COC °C	D92	191
Viscosity, cSt @ 40°C	D445	29.8
Viscosity, cSt @ 100°C	D445	5.98
Viscosity Index	D2270	152
Viscosity, cP @ -40°C	D2983M	11,500
Pour Point, °C	D97	-50
Phosphorous, %wt.	PCM438	.0194



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC dexos1/SN/SN PLUS GF-5



**TRANSIT TOUGH SYNTHETIC DEXOS1/SN/SN PLUS GF-5** motor oils are the latest iteration in advanced protection for your gasoline-fueled GM vehicles. Available in 0W-20 and 5W-30 viscosities, these products are designed to inhibit LSPI (low speed pre-ignition), an engine event which can cause premature engine wear. These premium quality motor oils are specifically engineered for turbocharged direct-injected gasoline vehicles operating in low-speed and high load driving conditions. These lubricants are designed to perform under extreme conditions, have excellent cold temperature properties, resist thermal breakdown, and exceed the performance requirements of API SN, SN PLUS and ILSAC GF-5 licensing categories. **TRANSIT TOUGH SYNTHETIC DEXOS1/SN/SN PLUS GF-5** motor oils are licensed and approved by General Motors, dexos1™ Gen 2 License Number #D10546HH119.

**TRANSIT TOUGH SYNTHETIC DEXOS1/SN/GF-5** motor oils are recommended for use where GM dexos1™ Gen 2 is required, API SN, SN PLUS ILSAC GF-5, Ford M2C946-A (5W-30) M2C947-A (0W-20), Daimler Chrysler MS-6395. The 0W-20 viscosity is recommended for GM vehicles previously requiring dexos1™ 5W-20.

#### TYPICAL PROPERTIES

PROPERTY	0W-20	5W-30
Product Code	57912	59312
Specific Gravity	.845	.850
Viscosity, cSt @ 100°C	8.1	10.9
Viscosity, cSt @ 40°C	42.8	62.1
Viscosity, CCS cP @ (°C)	5459 (-35)	5000 (-30)
High Temp/High Shear Viscosity, cP @ 150°C	2.6	3.2
Viscosity Index	166	169
Flash Point, °C	227	227
Pour Point, °C	-51	-45
Zinc, Wt. (%)	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077
Calcium, Wt. (%)	0.135	0.135
NOACK, Wt. (%)	11	12



## TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF

### ATF Application Chart

Acura ATF-Z1
Aisin Warner JWS 3309 (T-IV) & JWS 3324 (WS), AW-1
Allison C-3 & C-4
American Motors ATF +3 (MS7176-E), ATF +4 (MS9602)
ATF RED 1, RED 1K
Audi 5 HP LT71141 (ZF 5 HP 18FL/19FL/24A)
Audi G 052 162 A1/A2
Audi G 055 025 A2 (JWS 3309)
Audi G 052 162 (ZF Lifeguardfluid 5) (ZF No. S671 090 170)
Audi/VW G 052 990
BMW JWS 3309 (T-IV)
BMW LA2634
BMW LT71141 (ZF 5 HP 18FL/19FL/24A)
BMW ZF 5HP18FL, 5HP24, 5HP30
BMW 7045E
BMW ETL-8072B
BMW MINI
CAT TO-2
Chrysler ATF+, +2, +3 (MS 7176E), +4 (MS 9602)
Chrysler/Dodge MOPAR AS 68 RC (T-IV), JWS 3309
Chrysler/Dodge/Jeep 68043742AA
Daewoo LT 71141
Daihatsu AMMIX ATF D-II
Daihatsu AMMIX ATF D-III SP
Esso LT 71141
FIAT T-IV type, JWS 3309
Ford MERCON®
Ford MERCON® V
Ford MERCON® SP
Ford MERCON® LV (FF-WSS-M2C-938A/SF, XT-10 QLV)
Ford FNR5
Ford M2C138CJ
Ford M2C166H



Ford WSS M2C 138CJ, 166H
Ford WSS M2C 922A1, 924A (XT-8-QAW) JWS 3309
Fuso ATF-II
Fuso ATF-SPIII
Fuso ATF-A4
GM9986195 (Aisin AW, JWS 3309)
GM TASA
GM DEXRON®-II
GM DEXRON®-IID
GM DEXRON®-IIE
GM DEXRON®-IIIG
GM DEXRON®-IIIH
GM DEXRON®-VI License # J-60195
GM/GMC/Opel/Saturn AW1
GM/GMC/Opel/Saturn 88863400
GM/GMC/Opel/Saturn 88863401
Hino Blue Ribon ATF
Honda ATF-Z1 (except in CVTs)
Honda DW-1
Hyundai/Kia SP-IV
Hyundai/Kia SP-IV M (SP4-M)
Hyundai/Kia SP-IV-RR
Hyundai/Kia SP-III
Hyundai/Kia Dex-II/ SP-II
Hyundai/Kia JWS 3314
Hyundai/Kia NWS 9683
Hyundai/Kia 040000C90SG
ISUZU BESCO ATF-II
ISUZU BESCO ATF-III
ISUZU BESCO ATF SP
ISUZU SCS Fluid
Jaguar ATF 3403-M115
Jaguar ATF LT71141, ZF 5HP24
Jaguar ATF 3403, JLM20238
JASO M315-2013 1A
JASO M315-2013 1A-LV



JASO M315-2013 2A
JEEP ATF+3, +4
KIA ATF SP-II, SP-III, SP-IV, SP-IVM, Red 1
Lexus JWS 3309
Mazda ATF D-II
Mazda ATF M-III
Mazda ATF M-V
Mazda ATF FZ
Mazda ATF F-1
Mazda ATF S-1
Mazda ATF N-1
MAZDA ATF 3317
MINI COOPER T-IV
Mitsubishi Diaqueen SK
Mitsubishi Diaqueen SP-II
Mitsubishi Diaqueen SP-III
Mitsubishi Diaqueen AW
Mitsubishi Diaqueen J2
Mitsubishi Diaqueen J3
Mitsubishi Diaqueen ATF PA
NAG 1 (Chrysler, Jeep, Cherokee)
Nissan Matic Fluid C
Nissan Matic Fluid D
Nissan Matic Fluid J
Nissan Matic Fluid K
Nissan Matic Fluid S
Opel (all vehicles)
Peugeot ZF 4HP20
Porsche ZF 5HP19FL, ZF 5HP20, LT71141
Porsche ATF 3403-M115,
Porsche T-IV (JWS 3309)
Renault Samsung SATF-D
Saab T-IV (JWS 3309)
Saab 93 165 147
Saturn T-IV (JWS 3309)
Scion (all vehicles)



Shell 3403, M115, LA 2634
Subaru ATF
Subaru ATF 5AT
Subaru DEXRON®-II
Subaru ATF, ATF HP
Suzuki AT OIL 5D06
Suzuki ATF 2326
Suzuki ATF 2384K
Suzuki JWS 3309
Suzuki ATF 3314
Suzuki ATF 3317
Texaco 7045-E
Texaco 8072B
Texaco N402
Toyota ATF D-II
Toyota ATF D-III
Toyota ATF T-III
Toyota ATF T-IV
Toyota ATF WS
Vickers M2950-S, I-286-S
Voith H55.6335.xx (G607)
Volvo CE 97340
VW 5 HP (ZF 5 HP 30)
VW 5HP (18FL, 30)
VW 5HP (19FL, 24A)
VW G 055 025 A2 (JWS 3309)
VW G 052 162
VW TL 521 62
ZF all 3 & 4 speed transmission
ZF TE-ML 09
ZF TE-ML 11 – Lifeguard Fluid 5 & 6

**Not to be used for DCT or CVT applications.**

Revised; 07/20/2018



### TRANSIT TOUGH FULL SYNTHETIC 5W-20 API SN/SN PLUS ILSAC GF-5

**TRANSIT TOUGH FULL SYNTHETIC 5W-20 GF-5** is specially formulated using synthetic base oils and high performance additive packages to provide superior performance benefits over conventional engine oils. These oils are formulated for excellent oxidation stability for long product life, superior low-temperature properties to insure protection during cold starts, lower volatility for reduced oil consumption, and excellent resistance to viscosity breakdown. **TRANSIT TOUGH FULL SYNTHETIC GF-5 MOTOR OIL** meets the most demanding lubrication requirements for today's naturally aspirated, turbo-charged and super-charged gasoline fueled and flex-fueled engines. These oils exceed the requirements of ILSAC GF-5 and are "Resource Conserving" for improved fuel economy.

API SN/SN PLUS ILSAC GF-5 Resource Conserving • Ford WSS-M2C945-A (5W-20) • Chrysler MS-6395 (5W-20)

#### TYPICAL PROPERTIES

PROPERTY	5W-20
Product Code	588
Density	7.10
Viscosity, cSt @ 100°C	8.71
Viscosity, cSt @ 40°C	51.3
Viscosity, CCS cP @ -30°C	4,900
High Temp/High Shear Viscosity, cP @ 150°C	2.6
Viscosity Index	148
Flash Point, °C	220
Pour Point, °C	-45
Zinc, Wt. (%)	0.084
Phosphorous, Wt. (%)	0.074
Calcium, Wt. (%)	0.206
NOACK, Wt. (%)	12.0



## PRODUCT INFORMATION

### TRANSIT SUPER HD SAE 10W

TRANSIT SUPER HD SAE 10W is high quality engine oil used in over the road diesel trucks, off-highway diesel equipment, farm tractors, and passenger cars. **TRANSIT SUPER HD SAE 10W** exceeds API CF-2 and CF requirements and is also recommended for applications requiring former API categories CE, CD-II and CD, Caterpillar TO-2 and MIL-L-2104E.

#### TYPICAL PROPERTIES

PROPERTY	10W
Product Code	54512
CCS, cP( @ -20°C)	1700
Viscosity, cSt @ 100°C	6.4
Viscosity, cSt @ 40°C	37.2
Viscosity Index	129
Pour Point, °F	-45
Sulfated Ash, Wt. (%)	1.2
Total Base No., (D2896)	9.2

PERFORMANCE	10W
ALLISON C-4	X
API SJ	
CATERPILLAR TO-2	X
API CF-4	
API CE, CD-II, CD	X
API CF-2	-
API CF	X



## PRODUCT INFORMATION

### TRANSIT MULTI-PURPOSE ATF

**TRANSIT MULTI-PURPOSE ATF** is a premium automatic transmission fluid designed for new generation, electronically controlled transmissions. **TRANSIT MULTI-PURPOSE ATF** meets most major U. S. and import car manufacturers' performance requirements. This fluid was once licensed for the now obsolete General Motors DEXRON III H and Ford Mercon requirements. This fluid is suitable for use in applications requiring Ford type CJ and H fluids. It can also be used for off-highway transmissions, power steering, and other hydraulic systems requiring an Allison C-4 fluid. Meets requirements of Allison TES-389. The product also meets the industrial hydraulic oil demands of Denison HFO, Vickers vane and Sundstrand piston pumps.

**TRANSIT MULTI-PURPOSE ATF** is formulated from special, high-quality base oils combined with viscosity index improvers, antioxidants, anti-wear agents, detergents and defoamers. It contains special friction modifiers or lubricity agents to control the transition from full film to thin film lubrication as a vehicle's band and clutches are activated during shifting. This ensures consistent, smooth shifts under a broad range of driving conditions, temperatures, and transmissions.

**TRANSIT MULTI-PURPOSE ATF** is suitable for make-up and refill in 2005 and earlier General Motors and Ford cars and light trucks. It also is recommended for make-up and refill in older vehicles requiring Mercon fluid, as well as Fords requiring an M2C138CJ or M2C166H fluid.

TYPICAL PROPERTIES	
PRODUCT CODE	50512
Viscosity, cP @ -40°C	15400
Viscosity, cSt @ 40°C	34.49
Viscosity, cSt @ 100°C	7.62
Viscosity Index	175
Flash Point, °C	224
Pour Point, °C	-41
Color	Red
Gravity, API	30.8
Specific Gravity	0.872



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5 MOTOR OILS

**TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5** PASSENGER CAR ENGINE OILS are specially formulated using synthetic & virgin Group II base oils and high performance additive packages to provide superior performance in gasoline fueled and flex-fueled engines. These oils are formulated for excellent oxidation stability and low temperature properties to insure protection during cold starts. **TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5** engine oils exceed the requirements of ILSAC GF-5 and are “Resource Conserving” for improved fuel economy.

#### TYPICAL PROPERTIES

PROPERTY	5W-20	5W-30	10W-30
Product Code	59012	59112	59212
Density	7.16	7.17	7.20
Viscosity, cSt @ 100°C	8.3	10.0	10.2
Viscosity, cSt @ 40°C	47.7	59	66.1
Viscosity, CCS, cP @ °C	5,000 (-30)	5,500 (-30)	5,000(-25)
Viscosity Index	148	156	139
Sulfated Ash, %/wt.	0.84	0.84	0.85
Flash Point, PMCC °C	228	228	230
Pour Point, °C	-41	-41	-32
Zinc, Wt. (%)	0.085	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077	0.077
NOACK, Wt. (%)	12.4	12.4	10.5
HT/HS, Cp @150°C	2.6	3.0	3.1
<b>SPECIFICATION</b>			
API SN with Resource Conserving	X	X	X
ILSAC GF-5	X	X	X
CHRYSLER MS-6395	X	X	X
FORD WSS-M2C945-A	X		
FORD WSS-M2C946-A		X	



## PRODUCT INFORMATION

### TRANSIT TRACTOR HYDRAULIC FLUID

TRANSIT TRACTOR HYDRAULIC FLUID is a premium, exceptional high quality universal tractor hydraulic fluid for use in transmissions, final drives and hydraulic systems of all major brands of tractors and other farm equipment using a common fluid reservoir. This fluid incorporates the latest additive chemistry to provide maximum protection for all systems requiring a universal fluid.

TRANSIT TRACTOR HYDRAULIC FLUID meets the following specifications: **API GL-4**, **JOHN DEERE** J14B/C, J20A/B, J20C (HYGARD), J21A, JD 303 FLUID; **FORD NEW HOLLAND** M2C41-B, M2C48-B, M2C53-A, M2C53-B, M2C86-B/C, M2C134-A/B/C/D, FNHA-2-C-201; **CNH MAT** 3525; **MASSEY FERGUSON** M-1110, M-1127B, M-1129A, M-1135, M-1141 (PERMATRAN III); **CASE** JIC 143, JIC 144, MS-1204/JIC 185, MS-1205, MS-1206 (PTF), MS-1207 (HY TRAN PLUS), MS-1209 (HY-TRAN ULTRA) MS-1210/JIC 145 (TCH FLUID); **WHITE FARM EQUIPMENT** Q-1705, Q-1722, Q-1766B, Q-1802 (TYPE 55 FLUID), Q-1826 (HTF); **AGCO POWER FLUID** 821XL, PF 821; **ALLISON TYPE** C-4, C-3; **CATERPILLAR TO-2**; **HESSTON FIAT AF-87**; **KUBOTA UDT**; **MINNEAPOLIS-MOLINE** 35154, 35202, 35301; **VICKERS (EATON HYDRAULIC REQ'MENTS)** M-2950-S, I-286-S, 35VQ25; **SUNDSTRAND** HYDROSTATIC TRANSMISSION FLUID; **DENNISON HF—0**, HF-1, HF-2; **Volvo** WB 101/BM

#### TYPICAL PROPERTIES

PRODUCT CODE 44112

Viscosity, cSt @ 40°C	59.5
Viscosity, cSt @ 100°C	9.25
Viscosity, cP @ -20°C	4,500
Viscosity, cP @ -35°C	49,000
Viscosity Index	150
Pour Point, °F	-44
Flash Point, °F	432
Sulfated Ash, wt%	1.48
Total Base Number	10.1
Zinc, wt%	0.157



## PRODUCT INFORMATION

### TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4

**TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4** is formulated to meet or exceed the latest API diesel engine oil specifications as well as the warranty and performance requirements of most diesel engine manufacturers. Designed for use in model year 2017 and newer heavy-duty diesel engines in high output service, as well as being fully backwards compatible to engines requiring any API C service class, **TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4** provides robust protection, increased oxidation stability and excellent shear stability over any previous API category. **TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4** can be used with complete success in over-the-road diesel trucks, off-highway diesel equipment, farm tractors, and passenger cars and light trucks with diesel engines, turbo-charged or non turbo-charged, where an API CK-4 or earlier C class oil is specified.

#### TYPICAL PROPERTIES

PRODUCT CODE 31212

PROPERTY	15W-40 CK-4
CCS, cP( @ -20°C)	5500
Viscosity, cSt @ 100°C	14.8
Viscosity, cSt @ 40°C	111
Viscosity Index	139
Pour Point, °C	-39
Sulfated Ash, Wt. (%)	1.0
Calcium, Wt. (%)	.254
Phosphorous, Wt. (%)	.108
Zinc, Wt. (%)	.123
Sulfur, Wt. (%)	.360
Nitrogen, Wt. (%)	.130
Total Base No., (D2896)	10.0
Flash Point, °C	229
HTHS, Viscosity, cP (D4683)	4.1
NOACK % loss (D5800)	10
<b>PERFORMANCE</b>	
API CK-4, CJ-4, CI-4, CI-4 Plus CH-4, CG-4, CF-4, CF	X
ACEA E9-16, -E7-04	X
Caterpillar ECF-3, ECT-2, ECF-1a, TO-2	X
Cummins CES 20086, 20081, 20077 & 20076	X
Detroit Diesel 93K222, 93K218, 93K214, 7SE270, PG PGOS	X
Deutz DQC III-10 LA	X
Ford WSS-M2C171-F1	X
JASO DH-2	X
Mack EOS-4.5, EO-O Premium Plus, EO-M, EO-N Premium Plus	X
MAN 3575	X
Mercedes-Benz 228.31	X
MTU MTL 5044 Type 2.1	X
Renault VI RLD-4, RLD-3	X
Volvo VDS-4.5, VDS-4, VDS-3, VDS-2	X



## PRODUCT INFORMATION

### TRANSIT AW SERIES HYDRAULIC OILS

The **TRANSIT AW SERIES** are highly refined, good quality general purpose anti-wear hydraulic oils recommended for use in a wide range of applications, including hydraulic systems, mining equipment, and moderately loaded gear sets, as well as for general purpose lubrication. These oils are designed for use in piston, gear pumps, and vane pumps used in industrial and mobile hydraulic systems. **TRANSIT AW SERIES** oils provide good wear protection for pumps, motors, and other hydraulic system components. The products have good oxidation resistance, rust and corrosion protection and foam resistance.

**TRANSIT AW SERIES HYDRAULIC OILS** meet or exceed the following specifications Dennison HF-0, HF-1, HF-2, Vickers I-286-S, Cincinnati Milacron P-68, P-69, P-70..

#### TYPICAL PROPERTIES

Product Code	43312	43412	43812
PROPERTY	AW 32	AW 46	AW 68
Gravity, API (D287)	31.5	30.0	28.5
Viscosity, cSt/40°C (D445)	32	46	68
Viscosity, cSt/100°C (D445)	5.4	6.9	8.9
Viscosity Index (D2270)	100	100	100
Oxidation Stability, TOST (D943)	5000+	5000+	5000+
Demulsibility, 54.5°C, Min	20	20	20
FZG Pass, Load Test	10	10	10
Color,( D1500)	1.0	1.5	1.5
Zinc, % wt	.046	.046	.046
Cu Corrosion, 3 Hrs @100°C	1A	1A	1A
Rust (D665)	Pass	Pass	Pass
Flash Point, COC °F (D92)	405	410	410
Pour Point °C (D97)	-38	-37	-34



## PRODUCT INFORMATION

### TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF

TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF is a specifically designed, fully synthetic, next generation licensed fluid for use in General Motors vehicles where Dexron VI is specified, as well as other ATF applications (check your viscosity requirements). Formulated for use in low viscosity ATF applications (Mercon LV, SP; Toyota WS, etc.) and designed for the latest six and seven speed automatic transmissions, **TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF** is also completely backward compatible for use in older GM vehicles that specify Dexron III H, Dexron IIIG, Dexron IID, Dexron II or Dexron fluids. This fluid has shown outstanding performance in friction durability, shear and oxidation stability and provides longer service life with superior foam resistance, minimization of deposits and consistent shift performance. This fluid is approved by General Motors under license number J-60443.

PRODUCT CODE 51612

Property	ASTM	Typical value
Density, @ 15°C	D4052	.844
Color	Red	
Flash Point, COC °C	D92	191
Viscosity, cSt @ 40°C	D445	29.8
Viscosity, cSt @ 100°C	D445	5.98
Viscosity Index	D2270	152
Viscosity, cP @ -40°C	D2983M	11,500
Pour Point, °C	D97	-50
Phosphorous, %wt.	PCM438	.0194



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC dexos1/SN/SN PLUS GF-5



**TRANSIT TOUGH SYNTHETIC DEXOS1/SN/SN PLUS GF-5** motor oils are the latest iteration in advanced protection for your gasoline-fueled GM vehicles. Available in 0W-20 and 5W-30 viscosities, these products are designed to inhibit LSPI (low speed pre-ignition), an engine event which can cause premature engine wear. These premium quality motor oils are specifically engineered for turbocharged direct-injected gasoline vehicles operating in low-speed and high load driving conditions. These lubricants are designed to perform under extreme conditions, have excellent cold temperature properties, resist thermal breakdown, and exceed the performance requirements of API SN, SN PLUS and ILSAC GF-5 licensing categories. **TRANSIT TOUGH SYNTHETIC DEXOS1/SN/SN PLUS GF-5** motor oils are licensed and approved by General Motors, dexos1™ Gen 2 License Number #D10546HH119.

**TRANSIT TOUGH SYNTHETIC DEXOS1/SN/GF-5** motor oils are recommended for use where GM dexos1™ Gen 2 is required, API SN, SN PLUS ILSAC GF-5, Ford M2C946-A (5W-30) M2C947-A (0W-20), Daimler Chrysler MS-6395. The 0W-20 viscosity is recommended for GM vehicles previously requiring dexos1™ 5W-20.

#### TYPICAL PROPERTIES

PROPERTY	0W-20	5W-30
Product Code	57912	59312
Specific Gravity	.845	.850
Viscosity, cSt @ 100°C	8.1	10.9
Viscosity, cSt @ 40°C	42.8	62.1
Viscosity, CCS cP @ (-35)	5459 (-35)	5000 (-30)
High Temp/High Shear Viscosity, cP @ 150°C	2.6	3.2
Viscosity Index	166	169
Flash Point, °C	227	227
Pour Point, °C	-51	-45
Zinc, Wt. (%)	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077
Calcium, Wt. (%)	0.135	0.135
NOACK, Wt. (%)	11	12



## TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF

### ATF Application Chart

Acura ATF-Z1
Aisin Warner JWS 3309 (T-IV) & JWS 3324 (WS), AW-1
Allison C-3 & C-4
American Motors ATF +3 (MS7176-E), ATF +4 (MS9602)
ATF RED 1, RED 1K
Audi 5 HP LT71141 (ZF 5 HP 18FL/19FL/24A)
Audi G 052 162 A1/A2
Audi G 055 025 A2 (JWS 3309)
Audi G 052 162 (ZF Lifeguardfluid 5) (ZF No. S671 090 170)
Audi/VW G 052 990
BMW JWS 3309 (T-IV)
BMW LA2634
BMW LT71141 (ZF 5 HP 18FL/19FL/24A)
BMW ZF 5HP18FL, 5HP24, 5HP30
BMW 7045E
BMW ETL-8072B
BMW MINI
CAT TO-2
Chrysler ATF+, +2, +3 (MS 7176E), +4 (MS 9602)
Chrysler/Dodge MOPAR AS 68 RC (T-IV), JWS 3309
Chrysler/Dodge/Jeep 68043742AA
Daewoo LT 71141
Daihatsu AMMIX ATF D-II
Daihatsu AMMIX ATF D-III SP
Esso LT 71141
FIAT T-IV type, JWS 3309
Ford MERCON®
Ford MERCON® V
Ford MERCON® SP
Ford MERCON® LV (FF-WSS-M2C-938A/SF, XT-10 QLV)
Ford FNR5
Ford M2C138CJ
Ford M2C166H



Ford WSS M2C 138CJ, 166H
Ford WSS M2C 922A1, 924A (XT-8-QAW) JWS 3309
Fuso ATF-II
Fuso ATF-SPIII
Fuso ATF-A4
GM9986195 (Aisin AW, JWS 3309)
GM TASA
GM DEXRON®-II
GM DEXRON®-IID
GM DEXRON®-IIE
GM DEXRON®-IIIG
GM DEXRON®-IIIH
GM DEXRON®-VI License # J-60195
GM/GMC/Opel/Saturn AW1
GM/GMC/Opel/Saturn 88863400
GM/GMC/Opel/Saturn 88863401
Hino Blue Ribon ATF
Honda ATF-Z1 (except in CVTs)
Honda DW-1
Hyundai/Kia SP-IV
Hyundai/Kia SP-IV M (SP4-M)
Hyundai/Kia SP-IV-RR
Hyundai/Kia SP-III
Hyundai/Kia Dex-II/ SP-II
Hyundai/Kia JWS 3314
Hyundai/Kia NWS 9683
Hyundai/Kia 040000C90SG
ISUZU BESCO ATF-II
ISUZU BESCO ATF-III
ISUZU BESCO ATF SP
ISUZU SCS Fluid
Jaguar ATF 3403-M115
Jaguar ATF LT71141, ZF 5HP24
Jaguar ATF 3403, JLM20238
JASO M315-2013 1A
JASO M315-2013 1A-LV



JASO M315-2013 2A
JEEP ATF+3, +4
KIA ATF SP-II, SP-III, SP-IV, SP-IVM, Red 1
Lexus JWS 3309
Mazda ATF D-II
Mazda ATF M-III
Mazda ATF M-V
Mazda ATF FZ
Mazda ATF F-1
Mazda ATF S-1
Mazda ATF N-1
MAZDA ATF 3317
MINI COOPER T-IV
Mitsubishi Diaqueen SK
Mitsubishi Diaqueen SP-II
Mitsubishi Diaqueen SP-III
Mitsubishi Diaqueen AW
Mitsubishi Diaqueen J2
Mitsubishi Diaqueen J3
Mitsubishi Diaqueen ATF PA
NAG 1 (Chrysler, Jeep, Cherokee)
Nissan Matic Fluid C
Nissan Matic Fluid D
Nissan Matic Fluid J
Nissan Matic Fluid K
Nissan Matic Fluid S
Opel (all vehicles)
Peugeot ZF 4HP20
Porsche ZF 5HP19FL, ZF 5HP20, LT71141
Porsche ATF 3403-M115,
Porsche T-IV (JWS 3309)
Renault Samsung SATF-D
Saab T-IV (JWS 3309)
Saab 93 165 147
Saturn T-IV (JWS 3309)
Scion (all vehicles)



Shell 3403, M115, LA 2634
Subaru ATF
Subaru ATF 5AT
Subaru DEXRON®-II
Subaru ATF, ATF HP
Suzuki AT OIL 5D06
Suzuki ATF 2326
Suzuki ATF 2384K
Suzuki JWS 3309
Suzuki ATF 3314
Suzuki ATF 3317
Texaco 7045-E
Texaco 8072B
Texaco N402
Toyota ATF D-II
Toyota ATF D-III
Toyota ATF T-III
Toyota ATF T-IV
Toyota ATF WS
Vickers M2950-S, I-286-S
Voith H55.6335.xx (G607)
Volvo CE 97340
VW 5 HP (ZF 5 HP 30)
VW 5HP (18FL, 30)
VW 5HP (19FL, 24A)
VW G 055 025 A2 (JWS 3309)
VW G 052 162
VW TL 521 62
ZF all 3 & 4 speed transmission
ZF TE-ML 09
ZF TE-ML 11 – Lifeguard Fluid 5 & 6

**Not to be used for DCT or CVT applications.**

Revised; 07/20/2018



## PRODUCT INFORMATION

### TRANSIT TOUGH FULL SYNTHETIC 5W-20 API SN/SN PLUS ILSAC GF-5

**TRANSIT TOUGH FULL SYNTHETIC 5W-20 GF-5** is specially formulated using synthetic base oils and high performance additive packages to provide superior performance benefits over conventional engine oils. These oils are formulated for excellent oxidation stability for long product life, superior low-temperature properties to insure protection during cold starts, lower volatility for reduced oil consumption, and excellent resistance to viscosity breakdown. **TRANSIT TOUGH FULL SYNTHETIC GF-5 MOTOR OIL** meets the most demanding lubrication requirements for today's naturally aspirated, turbo-charged and super-charged gasoline fueled and flex-fueled engines. These oils exceed the requirements of ILSAC GF-5 and are "Resource Conserving" for improved fuel economy.

API SN/SN PLUS ILSAC GF-5 Resource Conserving • Ford WSS-M2C945-A (5W-20) • Chrysler MS-6395 (5W-20)

#### TYPICAL PROPERTIES

PROPERTY	5W-20
Product Code	588
Density	7.10
Viscosity, cSt @ 100°C	8.71
Viscosity, cSt @ 40°C	51.3
Viscosity, CCS cP @ -30°C	4,900
High Temp/High Shear Viscosity, cP @ 150°C	2.6
Viscosity Index	148
Flash Point, °C	220
Pour Point, °C	-45
Zinc, Wt. (%)	0.084
Phosphorous, Wt. (%)	0.074
Calcium, Wt. (%)	0.206
NOACK, Wt. (%)	12.0



## PRODUCT INFORMATION

### TRANSIT SUPER HD SAE 10W

TRANSIT SUPER HD SAE 10W is high quality engine oil used in over the road diesel trucks, off-highway diesel equipment, farm tractors, and passenger cars. **TRANSIT SUPER HD SAE 10W** exceeds API CF-2 and CF requirements and is also recommended for applications requiring former API categories CE, CD-II and CD, Caterpillar TO-2 and MIL-L-2104E.

#### TYPICAL PROPERTIES

PROPERTY	10W
Product Code	54512
CCS, cP( @ -20°C)	1700
Viscosity, cSt @ 100°C	6.4
Viscosity, cSt @ 40°C	37.2
Viscosity Index	129
Pour Point, °F	-45
Sulfated Ash, Wt. (%)	1.2
Total Base No., (D2896)	9.2

PERFORMANCE	10W
ALLISON C-4	X
API SJ	
CATERPILLAR TO-2	X
API CF-4	
API CE, CD-II, CD	X
API CF-2	-
API CF	X



## PRODUCT INFORMATION

### TRANSIT MULTI-PURPOSE ATF

**TRANSIT MULTI-PURPOSE ATF** is a premium automatic transmission fluid designed for new generation, electronically controlled transmissions. **TRANSIT MULTI-PURPOSE ATF** meets most major U. S. and import car manufacturers' performance requirements. This fluid was once licensed for the now obsolete General Motors DEXRON III H and Ford Mercon requirements. This fluid is suitable for use in applications requiring Ford type CJ and H fluids. It can also be used for off-highway transmissions, power steering, and other hydraulic systems requiring an Allison C-4 fluid. Meets requirements of Allison TES-389. The product also meets the industrial hydraulic oil demands of Denison HFO, Vickers vane and Sundstrand piston pumps.

**TRANSIT MULTI-PURPOSE ATF** is formulated from special, high-quality base oils combined with viscosity index improvers, antioxidants, anti-wear agents, detergents and defoamers. It contains special friction modifiers or lubricity agents to control the transition from full film to thin film lubrication as a vehicle's band and clutches are activated during shifting. This ensures consistent, smooth shifts under a broad range of driving conditions, temperatures, and transmissions.

**TRANSIT MULTI-PURPOSE ATF** is suitable for make-up and refill in 2005 and earlier General Motors and Ford cars and light trucks. It also is recommended for make-up and refill in older vehicles requiring Mercon fluid, as well as Fords requiring an M2C138CJ or M2C166H fluid.

TYPICAL PROPERTIES	
PRODUCT CODE	50512
Viscosity, cP @ -40°C	15400
Viscosity, cSt @ 40°C	34.49
Viscosity, cSt @ 100°C	7.62
Viscosity Index	175
Flash Point, °C	224
Pour Point, °C	-41
Color	Red
Gravity, API	30.8
Specific Gravity	0.872



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5 MOTOR OILS

**TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5** PASSENGER CAR ENGINE OILS are specially formulated using synthetic & virgin Group II base oils and high performance additive packages to provide superior performance in gasoline fueled and flex-fueled engines. These oils are formulated for excellent oxidation stability and low temperature properties to insure protection during cold starts. **TRANSIT TOUGH SYNTHETIC BLEND SN/SN PLUS GF-5** engine oils exceed the requirements of ILSAC GF-5 and are “Resource Conserving” for improved fuel economy.

#### TYPICAL PROPERTIES

PROPERTY	5W-20	5W-30	10W-30
Product Code	59012	59112	59212
Density	7.16	7.17	7.20
Viscosity, cSt @ 100°C	8.3	10.0	10.2
Viscosity, cSt @ 40°C	47.7	59	66.1
Viscosity, CCS, cP @ °C	5,000 (-30)	5,500 (-30)	5,000(-25)
Viscosity Index	148	156	139
Sulfated Ash, %/wt.	0.84	0.84	0.85
Flash Point, PMCC °C	228	228	230
Pour Point, °C	-41	-41	-32
Zinc, Wt. (%)	0.085	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077	0.077
NOACK, Wt. (%)	12.4	12.4	10.5
HT/HS, Cp @150°C	2.6	3.0	3.1
<b>SPECIFICATION</b>			
API SN with Resource Conserving	X	X	X
ILSAC GF-5	X	X	X
CHRYSLER MS-6395	X	X	X
FORD WSS-M2C945-A	X		
FORD WSS-M2C946-A		X	



## PRODUCT INFORMATION

### TRANSIT TOUGH FULL SYNTHETIC dexos1 Gen2 /SP GF-6A



**TRANSIT TOUGH FULL SYNTHETIC DEXOS1 GEN2 SP/GF-6A** motor oils are the latest iteration in advanced protection for your gasoline-fueled GM vehicles. Available in SAE 0W-20 and SAE 5W-30 viscosities, these products are designed to inhibit LSPI (low speed pre-ignition), an engine event which can cause premature engine wear. These premium quality motor oils are specifically engineered for turbocharged direct-injected gasoline vehicles operating in low-speed and high load driving conditions. These lubricants are designed to perform under extreme conditions, have excellent cold temperature properties, resist thermal breakdown, and exceed the performance requirements of **API SP and ILSAC GF-6A** licensing categories. **TRANSIT TOUGH FULL SYNTHETIC DEXOS1 GEN2 SP GF-6A** motor oils are licensed and approved by General Motors, dexos1™ Gen 2 License Numbers D10546HH119 and D10547HH119.

**TRANSIT TOUGH FULL SYNTHETIC DEXOS1 GEN2 /SP/GF-6A** motor oils are recommended for use where GM dexos1™ Gen 2 is required, API SP, SN, SN PLUS ILSAC GF-5 or earlier, **Ford WWS-M2C941-A, WWS-M2C946-B1, CHRYSLER MS-6395, or any FOREIGN & DOMESTIC vehicles specifying an SAE 5W-30 API SP or previous category engine oil.**

**FORD WWS-M2C962-A1, WWS-M2C07-B1, Daimler Chrysler MS-6395, FOREIGN & DOMESTIC VEHICLES** specifying an SAE 0W-20 API SP or previous category engine oil. The 0W-20 viscosity is recommended for GM vehicles previously requiring dexos1™ 5W-20 (GM Service Bulletin #13-00-90-002).

#### TYPICAL PROPERTIES

PROPERTY	SAE 0W-20	SAE 5W-30
Product Code	57912	59312
Specific Gravity	.845	.850
Viscosity, cSt @ 100°C	8.1	10.9
Viscosity, cSt @ 40°C	42.8	62.1
Viscosity, CCS cP @ (°C)	5450 (-35)	5000 (-30)
High Temp/High Shear Viscosity, cP @ 150°C	2.6	3.2
Viscosity Index	166	169
Flash Point, °C	227	227
Pour Point, °C	-51	-45
Zinc, Wt. (%)	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077
Calcium, Wt. (%)	0.131	0.131
NOACK, Wt. (%)	11	12



## PRODUCT INFORMATION

# TRANSIT TOUGH SYNBLEND 10W30 SP GF-6A

### OVERVIEW

**ADVANTAGE SYNTHETIC BLEND SP/GF-6A ENGINE OILS** are specially formulated using full synthetic and Group II base oils plus high-performance additive packages for superior performance benefits in gasoline fueled, flex-fueled, and GDI turbo-boosted engines. They have been engineered to meet the latest specifications of Ford Motor Company for protection from LSPI events.

### FEATURES & BENEFITS

**ADVANTAGE SYNTHETIC BLEND SP/GF-6A ENGINE OILS** are uniquely designed to help extend engine life, protect against sludge and deposit formation, and protect against LSPI (low-speed pre-ignition) occurrence. These combustion events can cause premature engine wear or catastrophic failure. **ADVANTAGE SYNTHETIC BLEND SP/GF-6A ENGINE OILS** also contain specialized friction-reducing additives that allow them to provide enhanced fuel economy and fuel savings.

### APPLICATIONS

**ADVANTAGE SYNTHETIC BLEND SP/GF-6A ENGINE OILS** protect and enhance today's modern engines utilizing GDI (gas direct injected) fuel systems and turbo chargers. These fluids meet the most demanding lubrication requirements and are recommended for most all modern passenger cars and light duty trucks. **ADVANTAGE SYNTHETIC BLEND SP/GF-6A ENGINE OILS** are ILSAC GF-6A certified, **fully backwards compatible to GF-5** and earlier certifications, and are API "Resource Conserving" for improved fuel economy.

### SPECIFICATIONS

**ALL VISCOSITY GRADES - API SP, SN, SN PLUS, SM, SL, SJ • ILSAC GF-6A, GF-5 •  
CHRYSLER MS-6395 • GM 6094M  
SAE 5W-20 - FORD WSS-M2C960-A1, WSS-M2C945-B1  
SAE 5W-30 - FORD WSS-M2C961-A1, WSS-M2C946-B1**



## PRODUCT INFORMATION

TYPICAL PROPERTIES PRODUCT CODES	747	748	749
SAE Viscosity Grade	5W-20	5W-30	10W-30
Viscosity, cSt @ 100°C	8.2	9.9	10.9
Viscosity, cSt @ 40°C	48.7	59.7	67.2
Viscosity Index	142	152	154
Viscosity, CCS, cP @ °C	6,000 (-30)	5,400 (-30)	5,000 (-25)
Flash Point, COC °C, min	200	200	220
Pour Point, °C, max	-45	-45	-40

The data and OEM specifications listed are to the best of our knowledge accurate. This information listed is typical data and should not be considered a product standard nor a standard upon which acceptance or rejection of delivered product is to be based. It is the owner's responsibility to consult their equipment owner's manual and select the proper lubricant and viscosity grade for give application. This data is subject to change without notification.



## PRODUCT INFORMATION

### TRANSIT TRACTOR HYDRAULIC FLUID

TRANSIT TRACTOR HYDRAULIC FLUID is a premium, exceptional high quality universal tractor hydraulic fluid for use in transmissions, final drives and hydraulic systems of all major brands of tractors and other farm equipment using a common fluid reservoir. This fluid incorporates the latest additive chemistry to provide maximum protection for all systems requiring a universal fluid.

TRANSIT TRACTOR HYDRAULIC FLUID meets the following specifications: **API GL-4**, **JOHN DEERE** J14B/C, J20A/B, J20C (HYGARD), J21A, JD 303 FLUID; **FORD NEW HOLLAND** M2C41-B, M2C48-B, M2C53-A, M2C53-B, M2C86-B/C, M2C134-A/B/C/D, FNHA-2-C-201; **CNH MAT** 3525; **MASSEY FERGUSON** M-1110, M-1127B, M-1129A, M-1135, M-1141 (PERMATRAN III); **CASE** JIC 143, JIC 144, MS-1204/JIC 185, MS-1205, MS-1206 (PTF), MS-1207 (HY TRAN PLUS), MS-1209 (HY-TRAN ULTRA) MS-1210/JIC 145 (TCH FLUID); **WHITE FARM EQUIPMENT** Q-1705, Q-1722, Q-1766B, Q-1802 (TYPE 55 FLUID), Q-1826 (HTF); **AGCO POWER FLUID** 821XL, PF 821; **ALLISON TYPE** C-4, C-3; **CATERPILLAR TO-2**; **HESSTON FIAT AF-87**; **KUBOTA UDT**; **MINNEAPOLIS-MOLINE** 35154, 35202, 35301; **VICKERS (EATON HYDRAULIC REQ'MENTS)** M-2950-S, I-286-S, 35VQ25; **SUNDSTRAND** HYDROSTATIC TRANSMISSION FLUID; **DENNISON HF—0**, HF-1, HF-2; **Volvo** WB 101/BM

#### TYPICAL PROPERTIES

PRODUCT CODE 44112

Viscosity, cSt @ 40°C	59.5
Viscosity, cSt @ 100°C	9.25
Viscosity, cP @ -20°C	4,500
Viscosity, cP @ -35°C	49,000
Viscosity Index	150
Pour Point, °F	-44
Flash Point, °F	432
Sulfated Ash, wt%	1.48
Total Base Number	10.1
Zinc, wt%	0.157

# SAFETY DATA SHEET

## TRANSIT AW HYDRAULIC OILS 32, 46, 68



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : TRANSIT AW HYDRAULIC OILS 32, 46, 68  
**Product Code(s)** : 43312, 43412, 43812

#### 1.2 Product Usage

**Recommended Usage** : Antiwear Hydraulic Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
United States +1(800) 424-9300  
International +01 (703) 527-3887

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
BASE OIL SEVERELY REFINED	64742-65-0	99.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 1.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as a Antiwear Hydraulic Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed	5mg/m3	

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 30 cst
Viscosity @ 100C	: 5 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.

## Section 13 - Disposal Considerations

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-65-0

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372** : This material does not contain reportable chemicals.  
**311, 312** : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

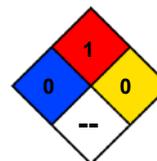
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# Material Safety Data Sheet

## Transit Super Heavy Duty 10W



### 1. Product and company identification

<b>Product name</b>	: Transit Super Heavy Duty 10W
<b>Material uses</b>	: Heavy duty oil.
<b>Supplier/Manufacturer</b>	: Transit Lubricants Ltd. 5 Hill Street Kitchener, Ontario N2G 4R3 PH: (800) 531-5823 (519) 571-1220 FAX: (519) 579-0286
<b>Date of issue</b>	: 06/15/2010
<b>In Case of emergency</b>	: Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday CHEMTREC: 800-424-9300 24 hrs Everyday

### 2. Hazards Identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Petroleum.
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
<b>Emergency overview</b>	: CAUTION! MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. Slightly irritating to the eyes, skin and respiratory system. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: Slightly irritating to the respiratory system.
<b>Ingestion</b>	: Aspiration hazard if swallowed. Can enter lungs and cause damage.
<b>Skin</b>	: Slightly irritating to the skin.
<b>Eyes</b>	: Slightly irritating to the eyes.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.



## 2 . Hazards identification

**Fertility effects** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

### United States

Name	CAS number	%
Base Oils.	See below.	>10
Zinc Alkyldithiophosphate	68649-42-3	1 - 5

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

## 4 . First aid measures

**Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.



## 5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
  - Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.



## 8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Eyes** : Safety glasses.

**Skin** : Lab coat.

**Respiratory** : A respirator is not needed under normal and intended conditions of product use.

**Hands** : Natural rubber (latex).

**Personal protective equipment (Pictograms)** :



**HMIS Code/Personal protective equipment** : B

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

**Physical state** : Liquid.

**Flash point** : Open cup: 210 to 226°C (410 to 438.8°F) [Cleveland.]

**Color** : Amber. [Dark]

**Odor** : Petroleum.

**Relative density** : 0.88 to 0.896 @ 15.6°C

**Vapor pressure** : <0.13 kPa (<1 mm Hg)

**VOC** : 26.2 % (w/w)

**Solubility** : Insoluble in the following materials: cold water and hot water.



## 10 . Stability and reactivity

- Stability** : The product is stable.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

### Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Base Oils.	Rabbit	>5 g/kg	LD50 Dermal	-
	Rat	>5 g/kg	LD50 Oral	-

**Inhalation** : Slightly irritating to the respiratory system.

**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.

**Skin** : Slightly irritating to the skin.

**Eyes** : Slightly irritating to the eyes.

## 12 . Ecological information

- Environmental effects** : No known significant effects or critical hazards.

## 13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

- AERG** : Not applicable.
- Regulatory information**
- DOT/ IMDG/ IATA** : Not regulated.

## 15 . Regulatory information

### United States

- HCS Classification** : Not regulated.
- U.S. Federal regulations** : TSCA 4(a) final test rules: Diphenylamine  
TSCA 8(a) PAIR: Phenol, (tetrapropenyl) derivs.; Zinc Alkyldithiophosphate;  
Diphenylamine  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006



## 15 . Regulatory information

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.  
**SARA 302/304 emergency planning and notification:** No products were found.  
**SARA 302/304/311/312 hazardous chemicals:** No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** No products were found.

**Clean Water Act (CWA) 307:** Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

### State regulations

- Connecticut Carcinogen Reporting:** None of the components are listed.
- Connecticut Hazardous Material Survey:** None of the components are listed.
- Florida substances:** None of the components are listed.
- Illinois Chemical Safety Act:** None of the components are listed.
- Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
- Louisiana Reporting:** None of the components are listed.
- Louisiana Spill:** None of the components are listed.
- Massachusetts Spill:** None of the components are listed.
- Massachusetts Substances:** The following components are listed: Base Oils.
- Michigan Critical Material:** None of the components are listed.
- Minnesota Hazardous Substances:** None of the components are listed.
- New Jersey Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate
- New Jersey Spill:** None of the components are listed.
- New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
- New York Acutely Hazardous Substances:** None of the components are listed.
- New York Toxic Chemical Release Reporting:** None of the components are listed.
- Pennsylvania RTK Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate
- Rhode Island Hazardous Substances:** None of the components are listed.

### California Prop. 65

- : No products were found.

### International regulations

#### International lists

- : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

### Label requirements

- : MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

### Hazardous Material Information System (U.S.A.)

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

#### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.



## 16 . Other information

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. -  
Materials, UN#, Proper Shipping Names, PG.

Date of issue : 06/15/2010  
Date of previous issue : 10/30/2008  
Version : 2

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC 0W-20 dexos1/SN/GF-5



**TRANSIT TOUGH SYNTHETIC 0W-20 DEXOS1/SN/GF-5** motor oil is specifically formulated for and licensed by General Motors to meet their new Global Engine Oil Specification. The product is formulated using synthetic base oils and advanced additive technology which exceeds the requirements of the General Motors specification. This oil meets or exceeds the latest API SN and ILSAC GF-5 specifications as well as all previous service classifications API SM, SL and ILSAC GF-4 and GF-3. This oil is a premium quality motor oil designed to meet the most demanding lubrication requirements of today's naturally aspirated, turbo-charged and super-charged gasoline fueled engines. This oil is specially formulated to provide excellent oxidation stability, increase wear protection, excellent low temperature flow properties, reduce oil consumption and enhance fuel economy. License No. RR1F0306119

**TRANSIT TOUGH SYNTHETIC 0W-20 DEXOS1/SN/GF-5** motor oil is recommended for use where GM dexos1 is required, API SN, SM, SL, SJ, ILSAC GF-5, GF-4, GF-3, ACEA A1. Does meet the Ford WSS-M2C947-A specification

#### TYPICAL PROPERTIES

PROPERTY	0W-20
Product Code	57912
Density	7.10
Viscosity, cSt @ 100°C	8.2
Viscosity, cSt @ 40°C	43
Viscosity, CCS cP @ -35°C	5600
High Temp/High Shear Viscosity, cP @ 150°C	2.6
Viscosity Index	170
Flash Point, °C	220
Pour Point, °C	-51
Zinc, Wt. (%)	0.084
Phosphorous, Wt. (%)	0.074
Calcium, Wt. (%)	0.215
NOACK, Wt. (%)	12.5

# Material Safety Data Sheet



## Transit Tough Heavy Duty 15W-40

### 1. Product and company identification

**Product name** : Transit Tough Heavy Duty 15W-40  
**Material uses** : Heavy duty oil.  
**Supplier/Manufacturer** : Transit Lubricants, Ltd.  
5 Hill Street  
Kitchener, ON Canada N2G4R3  
**Code** : 52412  
**Validation date** : 04/10/2015  
**Responsible name** : Atrion Regulatory Services, Inc.  
**In case of emergency** : Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday  
CHEMTREC: 800-424-9300 24 hrs Everyday

### 2. Hazards identification

**Physical state** : Liquid.  
**Odor** : Petroleum.  
**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  
**Emergency overview** : CAUTION!  
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  
Slightly irritating to the eyes, skin and respiratory system. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** : Slightly irritating to the respiratory system.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.  
**Potential chronic health effects**  
**Chronic effects** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.



## Transit Tough Heavy Duty 15W-40

### 2. Hazards identification

- Fertility effects** : No known significant effects or critical hazards.
- Over-exposure signs/symptoms**
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting
- Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

### 3. Composition/information on ingredients

United States			
Name	CAS number	%	
Base Oils.	See below.	>76	
Zinc Alkyldithiophosphate	68649-42-3	1 - 5	

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.



## Transit Tough Heavy Duty 15W-40

### 5. Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
  - Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

### 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

### 8. Exposure controls/personal protection

	United States
<b>Product name</b>	<b>Exposure limits</b>
Base Oils.	<b>ACGIH TLV (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s).
	<b>OSHA PEL 1989 (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s).

Consult local authorities for acceptable exposure limits.



## Transit Tough Heavy Duty 15W-40

### 8 . Exposure controls/personal protection

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Eyes** : Safety glasses.
- Skin** : Lab coat.
- Respiratory** : A respirator is not needed under normal and intended conditions of product use.
- Hands** : Natural rubber (latex).
- Personal protective equipment (Pictograms)** :
- 
- HMIS Code/Personal protective equipment** : B
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### 9 . Physical and chemical properties

- Physical state** : Liquid.
- Color** : Amber. [Dark]
- Odor** : Petroleum.
- Relative density** : 0.87 @ 15.6°C
- Vapor pressure** : <0.13 kPa (<1 mm Hg)
- Solubility** : Insoluble in the following materials: cold water and hot water.

### 10 . Stability and reactivity

- Stability** : The product is stable.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## Transit Tough Heavy Duty 15W-40

### 11 . Toxicological information

#### Acute toxicity

- Inhalation : Slightly irritating to the respiratory system.  
Ingestion : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
Skin : Slightly irritating to the skin.  
Eyes : Slightly irritating to the eyes.

### 12 . Ecological information

- Environmental effects : No known significant effects or critical hazards.

### 13 . Disposal considerations

- Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### 14 . Transport information

- AERG : Not applicable.

#### Regulatory information

- DOT/IMDG/ IATA : Not regulated.

### 15 . Regulatory information

#### United States

- HCS Classification : Not regulated.  
U.S. Federal regulations : TSCA 4(a) final test rules: Diphenylamine  
TSCA 8(a) PAIR: Phenol, (tetrapropenyl) derivs.; Zinc Alkyldithiophosphate;  
Diphenylamine  
United States inventory (TSCA 8b): All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006  
SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notification: No products were found.  
SARA 302/304/311/312 hazardous chemicals: No products were found.  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.  
Clean Water Act (CWA) 307: Zinc Alkyldithiophosphate  
Clean Water Act (CWA) 311: No products were found.  
Clean Air Act (CAA) 112 accidental release prevention: No products were found.  
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.  
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.



## Transit Tough Heavy Duty 15W-40

### 15 . Regulatory information

**State regulations** : **Connecticut Carcinogen Reporting:** None of the components are listed.  
**Connecticut Hazardous Material Survey:** None of the components are listed.  
**Florida substances:** None of the components are listed.  
**Illinois Chemical Safety Act:** None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.  
**Louisiana Reporting:** None of the components are listed.  
**Louisiana Spill:** None of the components are listed.  
**Massachusetts Spill:** None of the components are listed.  
**Massachusetts Substances:** The following components are listed: Base Oils.  
**Michigan Critical Material:** None of the components are listed.  
**Minnesota Hazardous Substances:** None of the components are listed.  
**New Jersey Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate  
**New Jersey Spill:** None of the components are listed.  
**New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.  
**New York Acutely Hazardous Substances:** None of the components are listed.  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate  
**Rhode Island Hazardous Substances:** None of the components are listed.

**California Prop. 65** : No products were found.

#### International regulations

**International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

### 16 . Other information

**Label requirements** : MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

#### Hazardous Material Information System (U.S.A.)

Health	2
Fire hazard	1
Physical Hazard	0
Personal protection	B

#### HAZARD RATINGS

4- Extreme  
3- Serious  
2- Moderate  
1- Slight  
0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

#### National Fire Protection Association (U.S.A.)



#### References

: ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.



## Transit Tough Heavy Duty 15W-40

### 16 . Other information

Date of issue : 04/10/2015  
Date of previous issue :  
Version : 1

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Material Safety Data Sheet

Transit Multipurpose ATF



## 1. Product and company identification

**Product name** : Transit Multipurpose ATF  
**Material uses** : Transmission Oil.  
**Supplier/Manufacturer** : Transit Lubricants Ltd.  
5 Hill Street  
Kitchener, Ontario N2G 4R3  
PH: (800) 531-5823 (519) 571-1220 FAX: (519) 579-0286  
**Date of issue** : 06/15/2010  
**In Case of emergency** : Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday  
CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards Identification

**Physical state** : Liquid.  
**Odor** : Petroleum. [Slight]  
**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  
**Emergency overview** : CAUTION!  
MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  
Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.  
**Potential chronic health effects**  
**Chronic effects** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.  
**Over-exposure signs/symptoms**  
**Inhalation** : No specific data.  
**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting



## 2. Hazards identification

- Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3. Composition/information on ingredients

### United States

Name	CAS number	%
Base Oil	See below.	>88

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

	United States
<b>Product name</b>	<b>Exposure limits</b>
Distillates (petroleum), solvent-refined heavy paraffinic	<b>NIOSH REL (United States, 12/2001).</b> STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Mist TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Mist
Distillates (petroleum), hydrotreated heavy paraffinic	<b>ACGIH TLV (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s). <b>OSHA PEL 1989 (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s).

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.



## 8. Exposure controls/personal protection

Engineering measures	: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal protection	
Eyes	: Safety glasses.
Skin	: Lab coat.
Respiratory	: A respirator is not needed under normal and intended conditions of product use.
Hands	: Natural rubber (latex).
Personal protective equipment (Pictograms)	: 
HMIS Code/Personal protective equipment	: B
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

Physical state	: Liquid.
Flash point	: Open cup: 177°C (350.6°F) [Cleveland.]
Color	: Red.
Odor	: Petroleum. [Slight]
Relative density	: 0.86 to 0.87 @ 15.6°C
Vapor pressure	: <0.13 kPa (<1 mm Hg)
Evaporation rate	: <1 (butyl acetate = 1)
Solubility	: Insoluble in the following materials: cold water and hot water.

## 10. Stability and reactivity

Stability	: The product is stable.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: No specific data.
Materials to avoid	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## 11 . Toxicological information

### Acute toxicity

- Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.

## 12 . Ecological information

- Environmental effects** : No known significant effects or critical hazards.

## 13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: **HANDLING AND STORAGE** and Section 8: **EXPOSURE CONTROLS/PERSONAL PROTECTION** for additional handling information and protection of employees.

## 14 . Transport information

- AERG** : Not applicable.  
**Regulatory information**  
**DOT/IMDG/ IATA** : Not regulated.

## 15 . Regulatory information

### United States

- HCS Classification** : Not regulated.  
**U.S. Federal regulations** : **United States inventory (TSCA 8b)**: All components are listed or exempted.  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.  
**Clean Water Act (CWA) 307**: Ethylbenzene  
**Clean Water Act (CWA) 311**: Xylene; Ethylbenzene  
**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.  
**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.  
**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.  
**State regulations** : **Connecticut Carcinogen Reporting**: None of the components are listed.  
**Connecticut Hazardous Material Survey**: None of the components are listed.  
**Florida substances**: None of the components are listed.  
**Illinois Chemical Safety Act**: None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act**: None of the components are listed.  
**Louisiana Reporting**: None of the components are listed.  
**Louisiana Spill**: None of the components are listed.



### 15 . Regulatory information

**Massachusetts Spill:** None of the components are listed.  
**Massachusetts Substances:** None of the components are listed.  
**Michigan Critical Material:** None of the components are listed.  
**Minnesota Hazardous Substances:** None of the components are listed.  
**New Jersey Hazardous Substances:** None of the components are listed.  
**New Jersey Spill:** None of the components are listed.  
**New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.  
**New York Acutely Hazardous Substances:** None of the components are listed.  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** None of the components are listed.  
**Rhode Island Hazardous Substances:** None of the components are listed.

California Prop. 65 : No products were found.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Ethylbenzene	Yes.	No.	No.	No.

International regulations

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

### 16 . Other information

Label requirements : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

Hazardous Material Information System (U.S.A.) :

HAZARD RATINGS

Health	1
Fire hazard	1
Physical hazard	0
Personal protection	B

4- Extreme  
 3- Serious  
 2- Moderate  
 1- Slight  
 0- Minimal  
 See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

Date of issue : 06/15/2010  
 Date of previous issue : 06/01/2009  
 Version : 2



## 16 . Other information

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



## PRODUCT INFORMATION

### TRANSIT AW SERIES HYDRAULIC OILS

The **TRANSIT AW SERIES** are highly refined, good quality general purpose anti-wear hydraulic oils recommended for use in a wide range of applications, including hydraulic systems, mining equipment, and moderately loaded gear sets, as well as for general purpose lubrication. These oils are designed for use in piston, gear pumps, and vane pumps used in industrial and mobile hydraulic systems. **TRANSIT AW SERIES** oils provide good wear protection for pumps, motors, and other hydraulic system components. The products have good oxidation resistance, rust and corrosion protection and foam resistance.

**TRANSIT AW SERIES HYDRAULIC OILS** meet or exceed the following specifications Dennison HF-0, HF-1, HF-2, Vickers I-286-S, Cincinnati Milacron P-68, P-69, P-70..

#### TYPICAL PROPERTIES

Product Code	43312	43412	43812
<b>PROPERTY</b>	<b>AW 32</b>	<b>AW 46</b>	<b>AW 68</b>
Gravity, API (D287)	31.5	30.0	28.5
Viscosity, cSt/40°C (D445)	32	46	68
Viscosity, cSt/100°C (D445)	5.4	6.9	8.9
Viscosity Index (D2270)	100	100	100
Oxidation Stability, TOST (D943)	5000+	5000+	5000+
Demulsibility, 54.5°C, Min	20	20	20
FZG Pass, Load Test	10	10	10
Color,( D1500)	1.0	1.5	1.5
Zinc, % wt	.046	.046	.046
Cu Corrosion, 3 Hrs @100°C	1A	1A	1A
Rust (D665)	Pass	Pass	Pass
Flash Point, COC °F (D92)	405	410	410
Pour Point °C (D97)	-38	-37	-34

# SAFETY DATA SHEET

## TRANSIT AW HYDRAULIC OILS 32, 46, 68



### Section 1 - Identification

#### 1.1 Product Identifiers

**Product Name** : TRANSIT AW HYDRAULIC OILS 32, 46, 68  
**Product Code(s)** : 43312, 43412, 43812

#### 1.2 Product Usage

**Recommended Usage** : Antiwear Hydraulic Oil  
**Restricted Usage** : Not Intended for any other usage

#### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
USA/Canada +1(800) 424-9300

#### 1.4 Supplier Information

Transit Lubricants  
5 Hill Street  
Kitchener, ON, Canada N2G4R3

**Phone** : 800.531.5823  
**Fax** : 519.579.0286

#### 1.5 Manufacturer Information

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States

**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com

### Section 2 - Hazards Identification

#### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

#### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

#### 2.3 Other Hazards

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
BASE OIL SEVERELY REFINED	64742-65-0	99.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 1.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as a Antiwear Hydraulic Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed	5mg/m3	

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 219C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.87
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 30 cst
Viscosity @ 100C	: 5 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.

## Section 13 - Disposal Considerations

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

(TSCA) Toxic Substance Control Act : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-65-0

WHMIS Hazard Class : None

Canada CPR : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

302, 313, 372 : This material does not contain reportable chemicals.  
311, 312 : Acute Health Hazard No Pressure Hazard No Fire Hazard No  
Chronic Health Hazard No Reactive Hazard No

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material contains the following listed chemicals

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

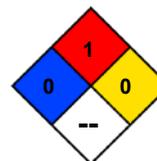
### Rhode Island Right to Know (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CFR</b>	Code of Federal Regulations
<b>DOT</b>	United States Department of Transportation
<b>GHS</b>	Globally Harmonized System of Classification and Labeling of Chemicals
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RTK</b>	Right-to-Know
<b>SARA</b>	Short-term Exposure Limit
<b>TSCA</b>	Toxic Substances Control Act
<b>WHMIS</b>	Workplace Hazardous Materials Information System

<b>NFPA: HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>INSTABILITY</b>	<b>0</b>
<b>SPECIAL</b>	<b>-</b>



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9



## PRODUCT INFORMATION

**TRANSIT**

### TRANSIT AW SERIES HYDRAULIC OILS

The **TRANSIT AW SERIES** are highly refined, good quality general purpose anti-wear hydraulic oils recommended for use in a wide range of applications, including hydraulic systems, mining equipment, and moderately loaded gear sets, as well as for general purpose lubrication. These oils are designed for use in piston, gear pumps, and vane pumps used in industrial and mobile hydraulic systems. **TRANSIT AW SERIES** oils provide good wear protection for pumps, motors, and other hydraulic system components. The products have good oxidation resistance, rust and corrosion protection and foam resistance.

**TRANSIT AW SERIES HYDRAULIC OILS** meet or exceed the following specifications: Dennison HF-0, HF-1, HF-2, Vickers I-286-S, Cincinnati Milacron P-68, P-69, P-70..

#### TYPICAL PROPERTIES

Product Code	43312	43412	43812
PROPERTY	AW 32	AW 46	AW 68
Gravity, API (D287)	31.5	30.0	28.5
Viscosity, cSt/40°C (D445)	32	46	68
Viscosity, cSt/100°C (D445)	5.4	6.9	8.9
Viscosity Index (D2270)	100	100	100
Oxidation Stability, TOST (D943)	5000+	5000+	5000+
Demulsibility, 54.5°C, Min	20	20	20
FZG Pass, Load Test	10	10	10
Color, (D1500)	1.0	1.5	1.5
Zinc, % wt	.046	.046	.046
Cu Corrosion, 3 Hrs @100°C	1A	1A	1A
Rust (D665)	Pass	Pass	Pass
Flash Point, COC °F (D92)	405	410	410
Pour Point °C (D97)	-38	-37	-34

5 HILL STREET • KITCHENER, ON N2G4R3 • 1-800-531-LUBES • (519)-571-1220 • FAX (519)-579-0286

# Material Safety Data Sheet

Transit Hydraulic AW Oils: AW 32; AW 46; AW 68



## 1. Product and company identification

**Product name** : Transit Hydraulic AW Oils: AW 32; AW 46; AW 68  
**Material uses** : Lubricating oil.  
**Supplier/Manufacturer** : Transit Lubricant, Ltd  
 5 Hill Street  
 Kitchener, ON Canada N2G4R3  
**Code** : 43012, 43512, 44012  
**Validation date** : 04/10/2015  
**Responsible name** : Atrion Regulatory Services, Inc.  
**In case of emergency** : Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday  
 CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards identification

**Physical state** : Liquid. [Clear. / Bright.]  
**Odor** : Petroleum.  
**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  
**Emergency overview** : CAUTION!  
 MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  
 Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.  
**Potential chronic health effects**  
**Chronic effects** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.  
**Over-exposure signs/symptoms**  
**Inhalation** : No specific data.  
**Ingestion** : Adverse symptoms may include the following:  
 nausea or vomiting



## 2. Hazards identification

- Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3. Composition/information on ingredients

United States			
Name		CAS number	%
Base Oils.		See below.	>10

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

	<b>United States</b>
<b>Product name</b>	<b>Exposure limits</b>
Base Oils.	NIOSH REL (United States, 6/2008). STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Mist TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Mist

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.



## 8 . Exposure controls/personal protection

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Eyes** : Safety glasses.

**Skin** : Lab coat.

**Respiratory** : A respirator is not needed under normal and intended conditions of use.

**Hands** : Natural rubber (latex).

### Personal protective equipment (Pictograms)



**HMIS Code/Personal protective equipment** : B

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

**Physical state** : Liquid. [Clear. / Bright.]

**Flash point** : Open cup: >200°C (>392°F) [Cleveland.]

**Color** : Amber.

**Odor** : Petroleum.

**Relative density** : 0.9 @ 15.6°C

**Vapor pressure** : <0.13 kPa (<1 mm Hg)

**Solubility** : Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

**Stability** : The product is stable.

**Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions to avoid** : No specific data.

**Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

### Acute toxicity

**Inhalation** : No known significant effects or critical hazards.

**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.

**Skin** : Slightly irritating to the skin.

**Eyes** : Slightly irritating to the eyes.



## 12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

## 13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

AERG : Not applicable.

Regulatory information

DOT/IMDG/IATA : Not regulated.

## 15 . Regulatory information

United States

HCS Classification : Not regulated.

U.S. Federal regulations : TSCA 8(a) PAIR: Zinc Alkyldithiophosphate  
**United States inventory (TSCA 8b):** All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** No products were found.

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** No products were found.

**Clean Water Act (CWA) 307:** Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

State regulations : Connecticut Carcinogen Reporting: None of the components are listed.

Connecticut Hazardous Material Survey: None of the components are listed.

Florida substances: None of the components are listed.

Illinois Chemical Safety Act: None of the components are listed.

Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.

Louisiana Reporting: None of the components are listed.

Louisiana Spill: None of the components are listed.

Massachusetts Spill: None of the components are listed.

Massachusetts Substances: None of the components are listed.

Michigan Critical Material: None of the components are listed.

Minnesota Hazardous Substances: None of the components are listed.

New Jersey Hazardous Substances: None of the components are listed.

New Jersey Spill: None of the components are listed.

New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.



## 15 . Regulatory information

**New York Acutely Hazardous Substances:** None of the components are listed.  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** None of the components are listed.  
**Rhode Island Hazardous Substances:** None of the components are listed.

California Prop. 65 : No products were found.

### International regulations

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

Label requirements : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

### Hazardous Material Information System (U.S.A.)

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

Date of issue : 04/10/2015  
 Date of previous issue :  
 Version : 1

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Material Safety Data Sheet

Transit AW Hydraulic Oils: AW 32; AW46; AW 68



## 1. Product and company identification

**Product name** : Transit AW Hydraulic Oils: AW 32; AW46; AW 68  
**Material uses** : Lubricating oil.  
**Supplier/Manufacturer** : Transit Lubricants Ltd.  
5 Hill Street  
Kitchener, Ontario N2G 4R3  
PH: (800) 531-5823 (519) 571-1220 FAX: (519) 579-0286  
**Date of issue** : 06/15/2010  
**In Case of emergency** : Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday  
CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards Identification

**Physical state** : Liquid. [Clear. / Bright.]  
**Odor** : Petroleum.  
**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  
**Emergency overview** : CAUTION!  
MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  
Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.  
**Potential chronic health effects**  
**Chronic effects** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.  
**Over-exposure signs/symptoms**  
**Inhalation** : No specific data.  
**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting



## 2. Hazards identification

- Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : None known.
- See toxicological information (section 11)

## 3. Composition/information on ingredients

### United States

Name	CAS number	%
Base Oils.	See below.	>10

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

	United States
<b>Product name</b>	<b>Exposure limits</b>
Base Oils.	NIOSH REL (United States, 6/2008). STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Mist TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Mist

### Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.



## 8 . Exposure controls/personal protection

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Eyes** : Safety glasses.  
**Skin** : Lab coat.  
**Respiratory** : A respirator is not needed under normal and intended conditions of use.  
**Hands** : Natural rubber (latex).

### Personal protective equipment (Pictograms)



**HMIS Code/Personal protective equipment** : B

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

**Physical state** : Liquid. [Clear. / Bright.]  
**Flash point** : Open cup: >200°C (>392°F) [Cleveland.]  
**Color** : Amber.  
**Odor** : Petroleum.  
**Relative density** : 0.9 @ 15.6°C  
**Vapor pressure** : <0.13 kPa (<1 mm Hg)  
**Solubility** : Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

**Stability** : The product is stable.  
**Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.  
**Conditions to avoid** : No specific data.  
**Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.  
**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

**Acute toxicity**  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.



## 12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

## 13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

AERG : Not applicable.

Regulatory information

DOT/ IMDG/ IATA : Not regulated.

## 15 . Regulatory information

United States

HCS Classification : Not regulated.

U.S. Federal regulations : TSCA 8(a) PAIR: Zinc Alkyldithiophosphate

United States inventory (TSCA 8b): All components are listed or exempted.

TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

Clean Water Act (CWA) 307: Zinc Alkyldithiophosphate

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations

: Connecticut Carcinogen Reporting: None of the components are listed.

Connecticut Hazardous Material Survey: None of the components are listed.

Florida substances: None of the components are listed.

Illinois Chemical Safety Act: None of the components are listed.

Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.

Louisiana Reporting: None of the components are listed.

Louisiana Spill: None of the components are listed.

Massachusetts Spill: None of the components are listed.

Massachusetts Substances: None of the components are listed.

Michigan Critical Material: None of the components are listed.

Minnesota Hazardous Substances: None of the components are listed.

New Jersey Hazardous Substances: None of the components are listed.

New Jersey Spill: None of the components are listed.

New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.



## 15 . Regulatory information

**New York Acutely Hazardous Substances:** None of the components are listed.  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** None of the components are listed.  
**Rhode Island Hazardous Substances:** None of the components are listed.

**California Prop. 65** : No products were found.

**International regulations**

**International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

**Label requirements** : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

**Hazardous Material Information System (U.S.A.)** :

### HAZARD RATINGS

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

**The customer is responsible for determining the PPE code for this material.**

**National Fire Protection Association (U.S.A.)** :



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

**Date of issue** : 06/15/2010

**Date of previous issue** : 10/30/2009

**Version** : 2

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



## PRODUCT INFORMATION

### TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF

TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF is a specifically designed, fully synthetic, next generation licensed fluid for use in General Motors vehicles where Dexron VI is specified, as well as other ATF applications (check your viscosity requirements). Formulated for use in low viscosity ATF applications (Mercon LV, SP; Toyota WS, etc.) and designed for the latest six and seven speed automatic transmissions, **TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF** is also completely backward compatible for use in older GM vehicles that specify Dexron III H, Dexron IIIG, Dexron IID, Dexron II or Dexron fluids. This fluid has shown outstanding performance in friction durability, shear and oxidation stability and provides longer service life with superior foam resistance, minimization of deposits and consistent shift performance. This fluid is approved by General Motors under license number J-60443.

PRODUCT CODE 51612

Property	ASTM	Typical value
Density, @ 15°C	D4052	.844
Color	Red	
Flash Point, COC °C	D92	191
Viscosity, cSt @ 40°C	D445	29.8
Viscosity, cSt @ 100°C	D445	5.98
Viscosity Index	D2270	152
Viscosity, cP @ -40°C	D2983M	11,500
Pour Point, °C	D97	-50
Phosphorous, %wt.	PCM438	.0194



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC 0W-20 dexos1/SN/GF-5



TRANSIT TOUGH SYNTHETIC 0W-20 DEXOS1/SN/GF-5 motor oil is specifically formulated for and licensed by General Motors to meet their new Global Engine Oil Specification. The product is formulated using synthetic base oils and advanced additive technology which exceeds the requirements of the General Motors specification. This oil meets or exceeds the latest API SN and ILSAC GF-5 specifications as well as all previous service classifications API SM, SL and ILSAC GF-4 and GF-3. This oil is a premium quality motor oil designed to meet the most demanding lubrication requirements of today's naturally aspirated, turbo-charged and super-charged gasoline fueled engines. This oil is specially formulated to provide excellent oxidation stability, increase wear protection, excellent low temperature flow properties, reduce oil consumption and enhance fuel economy. License No. RR1F0306119

TRANSIT TOUGH SYNTHETIC 0W-20 DEXOS1/SN/GF-5 motor oil is recommended for use where GM dexos1 is required, API SN, SM, SL, SJ, ILSAC GF-5, GF-4, GF-3, ACEA A1. Does meet the [Ford WSS-M2C947-A specification](#)

#### TYPICAL PROPERTIES

PROPERTY	0W-20
Product Code	57912
Density	7.10
Viscosity, cSt @ 100°C	8.2
Viscosity, cSt @ 40°C	43
Viscosity, CCS cP @ -35°C	5600
High Temp/High Shear Viscosity, cP @ 150°C	2.6
Viscosity Index	170
Flash Point, °C	220
Pour Point, °C	-51
Zinc, Wt. (%)	0.084
Phosphorous, Wt. (%)	0.074
Calcium, Wt. (%)	0.215
NOACK, Wt. (%)	12.5



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC 5W-20 dexos1/SN/GF-5



TRANSIT TOUGH SYNTHETIC 5W-20 DEXOS1/SN/GF-5 motor oil is specifically formulated for and licensed by General Motors to meet their new Global Engine Oil Specification. The product is formulated using synthetic base oils and advanced additive technology which exceeds the requirements of the General Motors specification. This oil meets or exceeds the latest API SN and ILSAC GF-5 specifications as well as all previous service classifications API SM, SL and ILSAC GF-4 and GF-3. This oil is a premium quality motor oil designed to meet the most demanding lubrication requirements of today's naturally aspirated, turbo-charged and super-charged gasoline fueled engines. This oil is specially formulated to provide excellent oxidation stability, increase wear protection, excellent low temperature flow properties, reduce oil consumption and enhance fuel economy. License No. RR1F0305119

TRANSIT TOUGH SYNTHETIC 5W-20 DEXOS1/SN/GF-5 motor oil is recommended for use where GM dexos1 is required, API SN, SM, SL, SJ • ACEA A1 • ILSAC GF-5, GF-4, GF-3 • GM 4718M • Ford M2C153H, M2C914-A, M2C945-A • Daimler Chrysler 10796, MS 6395M.

#### TYPICAL PROPERTIES

PROPERTY	5W-20
Product Code	59712
Density	7.10
Viscosity, cSt @ 100°C	8.71
Viscosity, cSt @ 40°C	51.3
Viscosity, CCS cP @ -30°C	4,900
High Temp/High Shear Viscosity, cP @ 150°C	2.6
Viscosity Index	148
Flash Point, °C	220
Pour Point, °C	-45
Zinc, Wt. (%)	0.084
Phosphorous, Wt. (%)	0.074
Calcium, Wt. (%)	0.206
NOACK, Wt. (%)	12.0



## PRODUCT INFORMATION

### TRANSIT TOUGH SYNTHETIC 5W-30 dexos1/SN/GF-5



**TRANSIT TOUGH SYNTHETIC 5W-30 DEXOS1/SN/GF-5** motor oil is specifically formulated for and licensed by General Motors to meet their new Global Engine Oil Specification. The product is formulated using synthetic base oils and advanced additive technology which exceeds the requirements of the General Motors specification. This oil meets or exceeds the latest API SN and ILSAC GF-5 specifications as well as all previous service classifications API SM, SL and ILSAC GF-4 and GF-3. This oil is a premium quality motor oil designed to meet the most demanding lubrication requirements of today's naturally aspirated, turbo-charged and super-charged gasoline fueled engines. This oil is specially formulated to provide excellent oxidation stability, increase wear protection, excellent low temperature flow properties, reduce oil consumption and enhance fuel economy. License No. RB1F0304119

**TRANSIT TOUGH SYNTHETIC 5W-30 DEXOS1/SN/GF-5** motor oil is recommended for use where GM dexos1 is required, API SN, SM, SL, SJ, ILSAC GF-5, GF-4, GF-3, ACEA A1, GM 6094M, GM 4718M, Ford M2C946-A, Daimler Chrysler 10796, MS 6395M.

#### TYPICAL PROPERTIES

PROPERTY	5W-30
Product Code	59312
Density	7.10
Viscosity, cSt @ 100°C	11.0
Viscosity, cSt @ 40°C	63.0
Viscosity, CCS cP @ -30°C	4,900
High Temp/High Shear Viscosity, cP @ 150°C	3.1
Viscosity Index	165
Flash Point, °C	220
Pour Point, °C	-45
Zinc, Wt. (%)	0.084
Phosphorous, Wt. (%)	0.074
Calcium, Wt. (%)	0.215
NOACK, Wt. (%)	11.0



### TRANSIT TOUGH FULL SYNTHETIC 5W-20 API SN/ILSAC GF-5

**TRANSIT TOUGH FULL SYNTHETIC 5W-20 GF-5** is specially formulated using synthetic base oils and high performance additive packages to provide superior performance benefits over conventional engine oils. These oils are formulated for excellent oxidation stability for long product life, superior low-temperature properties to insure protection during cold starts, lower volatility for reduced oil consumption, and excellent resistance to viscosity breakdown. **TRANSIT TOUGH FULL SYNTHETIC GF-5 MOTOR OIL** meets the most demanding lubrication requirements for today's naturally aspirated, turbo-charged and super-charged gasoline fueled and flex-fueled engines. These oils exceed the requirements of ILSAC GF-5 and are "Resource Conserving" for improved fuel economy.

API SN/ILSAC GF-5 Resource Conserving • Ford WSS-M2C945-A (5W-20) • Chrysler MS-6395 (5W-20)

#### TYPICAL PROPERTIES

PROPERTY	5W-20
Product Code	588
Density	7.10
Viscosity, cSt @ 100°C	8.71
Viscosity, cSt @ 40°C	51.3
Viscosity, CCS cP @ -30°C	4,900
High Temp/High Shear Viscosity, cP @ 150°C	2.6
Viscosity Index	148
Flash Point, °C	220
Pour Point, °C	-45
Zinc, Wt. (%)	0.084
Phosphorous, Wt. (%)	0.074
Calcium, Wt. (%)	0.206
NOACK, Wt. (%)	12.0



## PRODUCT INFORMATION

### TRANSIT GF-5 PASSENGER CAR ENGINE OILS

TRANSIT PASSENGER CAR ENGINE OILS GF-5/SN are specially formulated using synthetic and Group II base oils and high performance additive packages to provide superior performance in gasoline fueled and flex-fueled engines. These oils are formulated for excellent oxidation stability and low temperature properties to insure protection during cold starts. TRANSIT GF-5 engine oils exceed the requirements of ILSAC GF-5 and are "Resource Conserving" for improved fuel economy.

#### TYPICAL PROPERTIES

PROPERTY	5W-20	5W-30	10W-30	10W-40
Product Code	599	520	529	598
Viscosity, cSt @ 100°C	8.65	10.63	10.61	15.65
Viscosity, CCS cP @	6100 (-30)	6250 (-30)	6400 (-25)	6500 (-25)
Viscosity, cSt @ 40°C	50.5	63.5	70.16	109.10
Viscosity Index	149	158	139	152
Pour Point, °C	-45	-45	-42	-40
Zinc, Wt. (%)	0.085	0.085	0.085	0.085
Phosphorous, Wt. (%)	0.075	0.075	0.075	0.075
Calcium, Wt. (%)	0.210	0.200	0.200	0.200
NOACK, Wt. (%)	14.3	14.5	13.5	14.5
Density	7.18	7.18	7.26	7.26
PROPERTY	5W-20	5W-30	10W-30	10W-40
API Service SN, SM, SL	X	X	X	X
ILSAC GF-5	X	X	X	

12/2010

TRANSIT LUBRICANTS LTD. 5 HILL STREET, KITCHENER, ONTARIO N2G-4R5

1-800-531-5823 1-519-579-5330 FAX: 519-579-0286

# Material Safety Data Sheet

Transit Hydraulic AW Oils: AW 32; AW 46; AW 68



## 1. Product and company identification

<b>Product name</b>	: Transit Hydraulic AW Oils: AW 32; AW 46; AW 68
<b>Material uses</b>	: Lubricating oil.
<b>Supplier/Manufacturer</b>	: Transit Lubricant, Ltd 5 Hill Street Kitchener, ON Canada N2G4R3
<b>Code</b>	: 43012, 43512, 44012
<b>Validation date</b>	: 04/10/2015
<b>Responsible name</b>	: Atrion Regulatory Services, Inc.
<b>In case of emergency</b>	: Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards identification

<b>Physical state</b>	: Liquid. [Clear. / Bright.]
<b>Odor</b>	: Petroleum.
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
<b>Emergency overview</b>	: CAUTION! MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: Aspiration hazard if swallowed. Can enter lungs and cause damage.
<b>Skin</b>	: Slightly irritating to the skin.
<b>Eyes</b>	: Slightly irritating to the eyes.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Over-exposure signs/symptoms</b>	
<b>Inhalation</b>	: No specific data.
<b>Ingestion</b>	: Adverse symptoms may include the following: nausea or vomiting



## 2 . Hazards identification

**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

### United States

Name	CAS number	%
Base Oils.	See below.	>10

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

## 4 . First aid measures

**Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5 . Fire-fighting measures

**Flammability of the product** : May be combustible at high temperature.

### Extinguishing media

**Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Not suitable** : None known.

**Hazardous thermal decomposition products** : No specific data.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

	<b>United States</b>
<b>Product name</b>	<b>Exposure limits</b>
Base Oils.	<b>NIOSH REL (United States, 6/2008).</b> STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Mist TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Mist

**Consult local authorities for acceptable exposure limits.**

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.



## 8 . Exposure controls/personal protection

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Eyes** : Safety glasses.  
**Skin** : Lab coat.  
**Respiratory** : A respirator is not needed under normal and intended conditions of use.  
**Hands** : Natural rubber (latex).

### Personal protective equipment (Pictograms)



**HMIS Code/Personal protective equipment** : B

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

**Physical state** : Liquid. [Clear. / Bright.]  
**Flash point** : Open cup: >200°C (>392°F) [Cleveland.]  
**Color** : Amber.  
**Odor** : Petroleum.  
**Relative density** : 0.9 @ 15.6°C  
**Vapor pressure** : <0.13 kPa (<1 mm Hg)  
**Solubility** : Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

**Stability** : The product is stable.  
**Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.  
**Conditions to avoid** : No specific data.  
**Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.  
**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

**Acute toxicity**

**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.

**Eyes** : Slightly irritating to the eyes.



## 12 . Ecological information

**Environmental effects** : No known significant effects or critical hazards.

## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

**AERG** : Not applicable.

**Regulatory information**

**DOT/IMDG/ IATA** : Not regulated.

## 15 . Regulatory information

**United States**

**HCS Classification** : Not regulated.

**U.S. Federal regulations** : TSCA 8(a) PAIR: Zinc Alkyldithiophosphate  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.

**Clean Water Act (CWA) 307**: Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311**: No products were found.

**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.

**State regulations** : **Connecticut Carcinogen Reporting**: None of the components are listed.  
**Connecticut Hazardous Material Survey**: None of the components are listed.  
**Florida substances**: None of the components are listed.  
**Illinois Chemical Safety Act**: None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act**: None of the components are listed.  
**Louisiana Reporting**: None of the components are listed.  
**Louisiana Spill**: None of the components are listed.  
**Massachusetts Spill**: None of the components are listed.  
**Massachusetts Substances**: None of the components are listed.  
**Michigan Critical Material**: None of the components are listed.  
**Minnesota Hazardous Substances**: None of the components are listed.  
**New Jersey Hazardous Substances**: None of the components are listed.  
**New Jersey Spill**: None of the components are listed.  
**New Jersey Toxic Catastrophe Prevention Act**: None of the components are listed.



## 15 . Regulatory information

**New York Acutely Hazardous Substances:** None of the components are listed.  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** None of the components are listed.  
**Rhode Island Hazardous Substances:** None of the components are listed.

- California Prop. 65** : No products were found.
- International regulations**
- International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

**Label requirements** : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

**Hazardous Material Information System (U.S.A.)** :

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

### HAZARD RATINGS

4- Extreme  
3- Serious  
2- Moderate  
1- Slight  
0- Minimal  
See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)** :



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

- Date of issue** : 04/10/2015
- Date of previous issue** :
- Version** : 1

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



## PRODUCT INFORMATION

### TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF

**TRANSIT Uni-Syn LV Dexron VI ATF** is a specifically designed, fully synthetic, next generation licensed fluid for use in General Motors vehicles where Dexron VI is specified, as well as most other ATF applications (check your viscosity requirements). Formulated for use in low viscosity ATF applications (Mercon LV, SP; Toyota WS, etc.) and designed for the latest six and seven speed automatic transmissions. **TRANSIT Uni-Syn LV Dexron VI ATF** is also completely backward compatible for use in older GM vehicles that specify Dexron III H, Dexron III G, Dexron IID, Dexron II or Dexron fluids. This fluid has shown outstanding performance in friction durability, shear and oxidation stability and provides longer service life with superior foam resistance, minimization of deposits and consistent shift performance. This fluid is approved by General Motors under license number J-60155.

PRODUCT CODE 516

Property	ASTM	Typical value
Density, @ 15°C	D4052	.844
Color	Red	
Flash Point, COC °C	D92	191
Viscosity, Cst @ 40°C	D445	29.8
Viscosity, Cst @ 100°C	D445	5.98
Viscosity Index	D2270	152
Viscosity, cP @ -40°C	D2983M	11,500
Pour Point, °C	D97	-50
Phosphorous, %wt.	PCM438	.0194



## PRODUCT INFORMATION

**Transit Uni-Syn LV Dexron VI ATF Application Chart**

<i>Specification</i>	<i>Uni-Syn LV Dexron VI ATF Code 516</i>
Aisin Warner AW-1	X
Allison C-4	X
Allison TES-295**	X
Audi G-052-025-A2	X
Audi G-052-161-A1	X
Audi G-052-162-A1	X
Audi G-055-025-A2	X
BMW 5HP24	X
BMW 5HP30	X
BMW 7045E	X
BMW LA2634	X
BMW LT71141	X
BMW ZF 5HP18FL	X
Caterpillar TO-2	X
Chrysler ATF + <sup>o</sup>	X
Chrysler ATF +2 <sup>o</sup>	X
Chrysler ATF +3 <sup>o</sup>	X
Chrysler ATF +4 <sup>o</sup>	X
DEXRON <sup>o</sup>	X
DEXRON <sup>o</sup> -IID	X
DEXRON <sup>o</sup> -IIE	X
DEXRON <sup>o</sup> -III	X
DEXRON <sup>o</sup> -III G	X
DEXRON <sup>o</sup> -III H	X
DEXRON <sup>o</sup> -VI	X
Esso LT 71141	X



## PRODUCT INFORMATION

Ford M2C138CJ	X
Ford M2C166H	X
Ford FNR5	X
GM99861695 (Aisin AW)	X
GM TASA	X
Honda ATF-Z1	X
Honda Premium	X
Hyundai SP-II, III, & IV	X
Hyundai NWS-9638	X
Jaguar ZF 5HP24	X
Jaguar LT1141	X
Jaguar JLM20238	X
Jaguar ATF 3403-M115	X
JASO 1A-02	X
JASO 2A-02	X
JWS 3324	X
JWS 3309	X
KIA ATF RED 1	X
KIA SP-I	X
KIA SP-II	X
KIA SP-IV	X
MAN 339 Type Z-1 and V-1	X
MAN 339 Type Z-2 and V-2	X
MAN 339F	X
Mazda ATF-III	X
Mazda M-V	X
MB223.2	X
MB236.1	X
MB236.2	X



## PRODUCT INFORMATION

MB236.5	X
MB236.6	X
MB236.7	X
MB236.8	X
MB236.9	X
MB236.10	X
MB236.11	X
MB236.12	N/A
MERCON®	X
MERCON® V	X
MERCON® LV	X
MERCON® SP	X
Mitsubishi Diamond SP-II	X
Mitsubishi Diamond SP-III	X
Mitsubishi Diamond SP-IV	X
NAG 1 (Jeep Cherokee)	X
NAG 1 (Chrysler)	X
Nissan Matic-D	X
Nissan Matic-S (replaces J)	X
Nissan Matic-K	X
Peugeot ZF 4HP20	X
Porsche ZF 5HP19F	X
Porsche ATF3403-115	X
Porsche T-IV	X
Shell 3403-M115	X
Shell LA2634	X
Subaru ATF/ATF-HP	X
Texaco 7045-E	X
Texaco ETL-8072B	X



## PRODUCT INFORMATION

Toyota T-III	X
Toyota T-IV	X
Toyota WS	X
Voith 55.6336.32 (G1363)	X
Voith 55.3665	X
Voith Turbo	X
Volvo 97340	X
Volvo 97341	X
VW TL52162	X
VW G-052-162-A2	X
VW G-053-025-A2	X
VW G-053-162-A1	X
ZF Ecomat	X
ZF TE-ML 02F	X
ZF TE-ML 03D	X
ZF TE-ML 04D	X
ZF TE-ML 09	X
ZF TE-ML 11A	X
ZF TE-ML 14A	X
ZF TE-ML 14B	X
ZF TE-ML 14C	X
ZF TE-ML 16L	X
ZF TE-ML 17C	X

X = Suitable for Use  
 N/A = Not Applicable/Not Suitable for Use  
 \* Always refer to owner's manual for required fluid specifications.  
 \*\* Does not meet the extended drain interval requirement

## PRODUCT INFORMATION TRANSIT MULTI-PURPOSE ATF



TRANSIT MULTI-PURPOSE ATF is a premium automatic transmission fluid designed for new generation, electronically controlled transmissions. Multi-purpose ATF meets most major U. S. and import car manufacturers' performance requirements. This fluid was once licensed for the now obsolete General Motors DEXRON III H and Ford Mercon requirements. This fluid is suitable for use in applications requiring Ford type CJ and H fluids. It can also be used for off-highway transmissions, power steering, and other hydraulic systems requiring an Allison C-4 fluid. Meets requirements of Allison TES-389. The product also meets the industrial hydraulic oil demands of Denison HFO, Vickers vane and Sundstrand piston pumps.

The product is formulated from special, high-quality base oils combined with viscosity index improvers, antioxidants, anti-wear agents, detergents and defoamers. The product contains special friction modifiers or lubricity agents to control the transition from full film to thin film lubrication as a vehicle's band and clutches are activated during shifting. This ensures consistent, smooth shifts under a broad range of driving conditions, temperatures, and transmissions.

TRANSIT MULTI-PURPOSE ATF is suitable for make-up and refill in 1974 and later General Motors cars and light trucks. It also is recommended for make-up and refill in 1988 and later Ford and other vehicles requiring Mercon fluid as well as 1981 and later Fords requiring an M2C138CJ or M2C166H fluid.

### TYPICAL PROPERTIES

PROPERTY	
Viscosity, cP @ -40°C	15,400
Viscosity, cSt @ 40°C	34.49
Viscosity, cSt @ 100°C	7.62
Viscosity Index	175
Flash Point, °C	224
Pour Point, °C	-41
Color	Red
Gravity, API	30.8
Specific Gravity	0.872



## PRODUCT INFORMATION

### TRANSIT MULTI-PURPOSE ATF

**TRANSIT MULTI-PURPOSE ATF** is a premium automatic transmission fluid designed for new generation, electronically controlled transmissions. **TRANSIT MULTI-PURPOSE ATF** meets most major U. S. and import car manufacturers' performance requirements. This fluid was once licensed for the now obsolete General Motors DEXRON III H and Ford Mercon requirements. This fluid is suitable for use in applications requiring Ford type CJ and H fluids. It can also be used for off-highway transmissions, power steering, and other hydraulic systems requiring an Allison C-4 fluid. Meets requirements of Allison TES-389. The product also meets the industrial hydraulic oil demands of Denison HFO, Vickers vane and Sundstrand piston pumps.

**TRANSIT MULTI-PURPOSE ATF** is formulated from special, high-quality base oils combined with viscosity index improvers, antioxidants, anti-wear agents, detergents and defoamers. It contains special friction modifiers or lubricity agents to control the transition from full film to thin film lubrication as a vehicle's band and clutches are activated during shifting. This ensures consistent, smooth shifts under a broad range of driving conditions, temperatures, and transmissions.

**TRANSIT MULTI-PURPOSE ATF** is suitable for make-up and refill in 2005 and earlier General Motors and Ford cars and light trucks. It also is recommended for make-up and refill in older vehicles requiring Mercon fluid, as well as Fords requiring an M2C138CJ or M2C166H fluid.

TYPICAL PROPERTIES	
PRODUCT CODE	50512
Viscosity, cP @ -40°C	15400
Viscosity, cSt @ 40°C	34.49
Viscosity, cSt @ 100°C	7.62
Viscosity Index	175
Flash Point, °C	224
Pour Point, °C	-41
Color	Red
Gravity, API	30.8
Specific Gravity	0.872

# Material Safety Data Sheet

TRANSIT MULTI PURPOSE ATF MD



## 1. Product and company identification

<b>Product name</b>	: TRANSIT MULTI PURPOSE ATF MD
<b>Material uses</b>	: Transmission Oil
<b>Supplier/Manufacturer</b>	: Transit Lubricants, Ltd. 5 Hill Street Kitchener, ON Canada N2G4R3
<b>Code</b>	: 50512
<b>Validation date</b>	: 04/10/2015
<b>Responsible name</b>	: Atrion Regulatory Services, Inc.
<b>In case of emergency</b>	: Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Petroleum. [Slight]
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
<b>Emergency overview</b>	: CAUTION!  MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: Aspiration hazard if swallowed. Can enter lungs and cause damage.
<b>Skin</b>	: Slightly irritating to the skin.
<b>Eyes</b>	: Slightly irritating to the eyes.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Over-exposure signs/symptoms</b>	
<b>Inhalation</b>	: No specific data.
<b>Ingestion</b>	: Adverse symptoms may include the following: nausea or vomiting



## 2 . Hazards identification

**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

### United States

Name	CAS number	%
Base Oil	See below.	>88

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4 . First aid measures

**Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5 . Fire-fighting measures

**Flammability of the product** : May be combustible at high temperature.

### Extinguishing media

**Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Not suitable** : None known.

**Hazardous thermal decomposition products** : No specific data.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

### United States

**Product name**

Distillates (petroleum), solvent-refined heavy paraffinic

Distillates (petroleum), hydrotreated heavy paraffinic

**Exposure limits**

**NIOSH REL (United States, 12/2001).**  
STEL: 10 mg/m<sup>3</sup> 15 minute(s). Form: Mist  
TWA: 5 mg/m<sup>3</sup> 10 hour(s). Form: Mist

**ACGIH TLV (United States).**  
TWA: 5 mg/m<sup>3</sup> 8 hour(s).  
**OSHA PEL 1989 (United States).**  
TWA: 5 mg/m<sup>3</sup> 8 hour(s).

**Consult local authorities for acceptable exposure limits.**

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.



## 8 . Exposure controls/personal protection

<b>Engineering measures</b>	: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
<b>Hygiene measures</b>	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Personal protection</b>	
<b>Eyes</b>	: Safety glasses.
<b>Skin</b>	: Lab coat.
<b>Respiratory</b>	: A respirator is not needed under normal and intended conditions of product use.
<b>Hands</b>	: Natural rubber (latex).
<b>Personal protective equipment (Pictograms)</b>	: 
<b>HMIS Code/Personal protective equipment</b>	: B
<b>Environmental exposure controls</b>	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

<b>Physical state</b>	: Liquid.
<b>Flash point</b>	: Open cup: 177°C (350.6°F) [Cleveland.]
<b>Color</b>	: Red.
<b>Odor</b>	: Petroleum. [Slight]
<b>Relative density</b>	: 0.86 to 0.87 @ 15.6°C
<b>Vapor pressure</b>	: <0.13 kPa (<1 mm Hg)
<b>Evaporation rate</b>	: <1 (butyl acetate = 1)
<b>Solubility</b>	: Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

<b>Stability</b>	: The product is stable.
<b>Hazardous polymerization</b>	: Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Materials to avoid</b>	: Reactive or incompatible with the following materials: oxidizing materials.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## 11 . Toxicological information

### Acute toxicity

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.
- Skin** : Slightly irritating to the skin.
- Eyes** : Slightly irritating to the eyes.

## 12 . Ecological information

- Environmental effects** : No known significant effects or critical hazards.

## 13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

- AERG** : Not applicable.
- Regulatory information**
- DOT/ IMDG/ IATA** : Not regulated.

## 15 . Regulatory information

### United States

- HCS Classification** : Not regulated.
- U.S. Federal regulations** : **United States inventory (TSCA 8b)**: All components are listed or exempted.  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.
- Clean Water Act (CWA) 307**: Ethylbenzene  
**Clean Water Act (CWA) 311**: Xylene; Ethylbenzene  
**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.  
**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.  
**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.
- State regulations** : **Connecticut Carcinogen Reporting**: None of the components are listed.  
**Connecticut Hazardous Material Survey**: None of the components are listed.  
**Florida substances**: None of the components are listed.  
**Illinois Chemical Safety Act**: None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act**: None of the components are listed.  
**Louisiana Reporting**: None of the components are listed.  
**Louisiana Spill**: None of the components are listed.



# 15 . Regulatory information

**Massachusetts Spill:** None of the components are listed.  
**Massachusetts Substances:** None of the components are listed.  
**Michigan Critical Material:** None of the components are listed.  
**Minnesota Hazardous Substances:** None of the components are listed.  
**New Jersey Hazardous Substances:** None of the components are listed.  
**New Jersey Spill:** None of the components are listed.  
**New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.  
**New York Acutely Hazardous Substances:** None of the components are listed.  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** None of the components are listed.  
**Rhode Island Hazardous Substances:** None of the components are listed.

**California Prop. 65** : No products were found.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Ethylbenzene	Yes.	No.	No.	No.

## International regulations

**International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

# 16 . Other information

**Label requirements** : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

## Hazardous Material Information System (U.S.A.)

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

## National Fire Protection Association (U.S.A.)



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

**Date of issue** : 04/10/2015

**Date of previous issue** :

**Version** : 1



## 16 . Other information

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



## PRODUCT BULLETIN

### TRANSIT FULL SYNTHETIC GF-5 MOTOR OILS

**TRANSIT FULL SYNTHETIC GF-5 PASSENGER CAR ENGINE OILS** are specially formulated using synthetic base oils and high performance additive packages to provide superior performance benefits over conventional engine oils. These oils are formulated for excellent oxidation stability for long product life, superior low-temperature properties to insure protection during cold starts, lower volatility for reduced oil consumption, and excellent resistance to viscosity breakdown. **TRANSIT FULL SYNTHETIC GF-5** engine oils meet the most demanding lubrication requirements of today's naturally aspirated, turbo-charged and super-charged gasoline fueled and flex-fueled engines. These oils exceed the requirements of ILSAC GF-5 and are "Resource Conserving" for improved fuel economy. **TRANSIT FULL SYNTHETIC 0W-20** is recommended for Original Equipment Manufacturers (OEM) such as Toyota and Honda for some hybrid vehicle applications and a limited number of low temperature applications.

#### TYPICAL PROPERTIES

PROPERTY	0W-20	0W-30	5W-20	5W-30	10W-30
Product Code	586	587	588	589	594
Density	7.09	7.09	7.09	7.10	7.11
Viscosity, cSt @ 100°C	8.3	10.9	8.3	11.0	10.0
Viscosity, cSt @ 40°C	43.5	44.0	44.0	62.0	58.0
Viscosity, CCS, cP @ °C	5,250 (-35)	6,100 (-35)	4,100 (-30)	5,000 (-30)	3,800 (-25)
Viscosity Index	170	165	165	165	155
Flash Point, PMCC °C	200	200	200	200	200
Pour Point, °C	-45	-45	-45	-45	-45
Zinc, Wt. (%)	0.085	0.085	0.085	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077	0.077	0.077	0.077
NOACK, Wt. (%)	13.0	14.5	12.5	11.0	10.0
HT/HS, Cp @ 150°C	2.6	3.1	2.6	3.0	3.1
<b>SPECIFICATION</b>					
API SN with Resource Conserving	X	X	X	X	X
ILSAC GF-5	X	X	X	X	X
CHRYSLER MS-6395			X	X	X
FORD WSS-M2C945-A			X		
FORD WSS-M2C946-A				X	
HONDA	X				

11/2010

TRANSIT LUBRICANTS LTD. 5 HILL STREET, KITCHENER, ONTARIO N2G-4R3

1-800-531-5823 1-519-579-5330 FAX: 519-579-0286



## PRODUCT INFORMATION

### TRANSIT ATF

**TRANSIT ATF** is a premium automatic transmission fluid designed for new generation, electronically controlled transmissions. Multi-purpose ATF meets most major **U S** and import car manufacturers' performance requirements. This fluid was once licensed for the now obsolete General Motors DEXRON **-III** and Ford Mercon requirements. This fluid is suitable for use in applications requiring Ford type C3 and H fluids. It can also be used for off-highway transmissions, power steering, and other hydraulic systems requiring an Allison C-4 fluid. The product also meets the industrial hydraulic oil demands of Denison HFO, Vickers vane and Sundstrand piston pumps.

The product is formulated from special high quality base oils combined with viscosity index improvers, antioxidants, anti-wear agents, detergents and defoamers. The product contains special friction modifiers or lubricity agents to control the transition from full film to thin film lubrication as a vehicle's band and clutches are activated during shifting. This ensures consistent, smooth shifts under a broad range of driving conditions, temperatures, and transmissions. Transit Multi-Purpose ATF is suitable for make-up and refill in 1974 and later General Motors cars and light trucks. It also is recommended for make-up and refill in 1988 and later Ford and other vehicles requiring Mercon fluid as well as 1981 and later Fords requiring an M2C1380 or M2C166H fluid.

Gravity, °API	30.8
Product code	505
Color	Red
Viscosity, cSt @ 40°C	34.49
Viscosity, cSt @ 100°C	7.62
Viscosity index	199
Pour Point, °C	-41
Specific Gravity	0.872
Flash Point, COC °C	224
Viscosity, cP @ -40°C	<u>15,400</u>

**Transit Lubricants Ltd. 5 Hill Street, Kitchener, Ontario N2G-4R3**  
**(800) 531-5823 (519) 579-5330 FAX: (519) 579-0286**

# Material Safety Data Sheet



## Transit Super HD SAE 10W

### 1. Product and company identification

<b>Product name</b>	: Transit Super HD SAE 10W
<b>Material uses</b>	: Heavy duty oil.
<b>Supplier/Manufacturer</b>	: Transit Lubricants, Ltd. 5 Hill Street Kitchener, ON Canada N2G4R3
<b>Code</b>	: 54512
<b>Validation date</b>	: 04/10/2015
<b>Responsible name</b>	: Atrion Regulatory Services, Inc.
<b>In case of emergency</b>	: Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday CHEMTREC: 800-424-9300 24 hrs Everyday

### 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Petroleum.
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
<b>Emergency overview</b>	: CAUTION!  MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  Slightly irritating to the eyes, skin and respiratory system. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: Slightly irritating to the respiratory system.
<b>Ingestion</b>	: Aspiration hazard if swallowed. Can enter lungs and cause damage.
<b>Skin</b>	: Slightly irritating to the skin.
<b>Eyes</b>	: Slightly irritating to the eyes.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.



## Transit Super HD SAE 10W

### 2. Hazards identification

**Fertility effects** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

### 3. Composition/information on ingredients

#### United States

Name	CAS number	%
Base Oils.	See below.	>10
Zinc Alkyldithiophosphate	68649-42-3	1 - 5

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

### 4. First aid measures

**Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.



## Transit Super HD SAE 10W

### 5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
  - Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

### 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.



## Transit Super HD SAE 10W

### 8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Personal protection

**Eyes** : Safety glasses.

**Skin** : Lab coat.

**Respiratory** : A respirator is not needed under normal and intended conditions of product use.

**Hands** : Natural rubber (latex).

**Personal protective equipment (Pictograms)** :



**HMIS Code/Personal protective equipment** : B

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### 9 . Physical and chemical properties

**Physical state** : Liquid.

**Flash point** : Open cup: 210 to 226°C (410 to 438.8°F) [Cleveland.]

**Color** : Amber. [Dark]

**Odor** : Petroleum.

**Relative density** : 0.88 to 0.896 @ 15.6°C

**Vapor pressure** : <0.13 kPa (<1 mm Hg)

**VOC** : 26.2 % (w/w)

**Solubility** : Insoluble in the following materials: cold water and hot water.



## Transit Super HD SAE 10W

### 10 . Stability and reactivity

- Stability** : The product is stable.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### 11 . Toxicological information

#### Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Base Oils.	Rabbit	>5 g/kg	LD50 Dermal	-
	Rat	>5 g/kg	LD50 Oral	-

- Inhalation** : Slightly irritating to the respiratory system.
- Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.
- Skin** : Slightly irritating to the skin.
- Eyes** : Slightly irritating to the eyes.

### 12 . Ecological information

- Environmental effects** : No known significant effects or critical hazards.

### 13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### 14 . Transport information

- AERG** : Not applicable.
- Regulatory information**  
**DOT/IMDG/IATA** : Not regulated.

### 15 . Regulatory information

#### United States

- HCS Classification** : Not regulated.
- U.S. Federal regulations** : TSCA 4(a) final test rules: Diphenylamine  
TSCA 8(a) PAIR: Phenol, (tetrapropenyl) derivs.; Zinc Alkyldithiophosphate;  
Diphenylamine  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006



# Transit Super HD SAE 10W

## 15 . Regulatory information

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.  
**SARA 302/304 emergency planning and notification:** No products were found.  
**SARA 302/304/311/312 hazardous chemicals:** No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** No products were found.

**Clean Water Act (CWA) 307:** Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

### State regulations

- Connecticut Carcinogen Reporting:** None of the components are listed.
- Connecticut Hazardous Material Survey:** None of the components are listed.
- Florida substances:** None of the components are listed.
- Illinois Chemical Safety Act:** None of the components are listed.
- Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
- Louisiana Reporting:** None of the components are listed.
- Louisiana Spill:** None of the components are listed.
- Massachusetts Spill:** None of the components are listed.
- Massachusetts Substances:** The following components are listed: Base Oils.
- Michigan Critical Material:** None of the components are listed.
- Minnesota Hazardous Substances:** None of the components are listed.
- New Jersey Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate
- New Jersey Spill:** None of the components are listed.
- New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
- New York Acutely Hazardous Substances:** None of the components are listed.
- New York Toxic Chemical Release Reporting:** None of the components are listed.
- Pennsylvania RTK Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate
- Rhode Island Hazardous Substances:** None of the components are listed.

### California Prop. 65

: No products were found.

### International regulations

#### International lists

: This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

### Label requirements

: MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

### Hazardous Material Information System (U.S.A.)

:

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

#### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

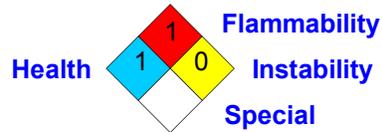
The customer is responsible for determining the PPE code for this material.



## Transit Super HD SAE 10W

### 16 . Other information

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

Date of issue : 04/10/2015

Date of previous issue :

Version : 2

#### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Material Safety Data Sheet



## TRANSIT TOUGH 5w-20, 5w-30, 10w-30

### 1 . Product and company identification

**Product name** Transit Tough 5w-20 , 5w-30, 10w-30  
**Material uses** Motor oils.  
**Supplier/Manufacturer** Transit Lubricants Ltd  
5 Hill Street  
Kitchener, Ontario N2G-4R3  
800-531-5823 519-579-5330 FAX 519-579-0286  
**Validation date** 03/15/2009  
**In case of emergency** CHEMTREC: 800-424-9300 24 hrs Everyday

### 2 . Hazards identification

**Physical state** Liquid.  
**Odor** Petroleum.  
**OSHA/HCS status** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
**Emergency overview** WARNING!  
CAUSES EYE AND SKIN IRRITATION.  
Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Routes of entry** Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** No known significant effects or critical hazards.  
**Ingestion** No known significant effects or critical hazards.  
**Skin** Irritating to skin.  
**Eyes** Irritating to eyes.  
**Potential chronic health effects**  
**Chronic effects** No known significant effects or critical hazards.  
**Carcinogenicity** No known significant effects or critical hazards.  
**Mutagenicity** No known significant effects or critical hazards.  
**Teratogenicity** No known significant effects or critical hazards.  
**Developmental effects** No known significant effects or critical hazards.  
**Fertility effects** No known significant effects or critical hazards.  
**Over-exposure signs/symptoms**  
**Inhalation** No specific data.  
**Ingestion** No specific data.  
**Skin** Adverse symptoms may include the following:  
irritation  
redness  
**Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness



## 2 . Hazards identification

Medical conditions aggravated by over-exposure                      None known.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

United States		
Name	CAS number	%
Base Oils.	64741-88-4	>50

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4 . First aid measures

Eye contact	Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
Skin contact	Wash with soap and water. Get medical attention if symptoms occur.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Notes to physician	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5 . Fire-fighting measures

Flammability of the product	May be combustible at high temperature.
Extinguishing media	
Suitable	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Not suitable	None known.
Hazardous thermal decomposition products	No specific data.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).



**6 . Accidental release measures**

**Methods for cleaning up**

**Small spill** Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.

**Large spill** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

**7 . Handling and storage**

**Handling** Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**8 . Exposure controls/personal protection**

	<b>United States</b>
<b>Product name</b>	<b>Exposure limits</b>
Base Oils.	<b>NIOSH REL (United States, 12/2001).</b> STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Mist TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Mist

**Consult local authorities for acceptable exposure limits.**

**Recommended monitoring procedures** If this product contains ingredients with exposure limits, personal, workplace atmosphere of biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Engineering measures** No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protection**

**Eyes** Safety glasses.  
**Skin** Lab coat.

**Respiratory** A respirator is not needed under normal and intended conditions of product



## 8 . Exposure controls/personal protection

Standards

Natural rubber (latex).

Personal protective equipment (Pictograms)



HMS Code/Personal protective equipment  
Environmental exposure controls

B

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

Physical state	Liquid.
Flash point	Open cup: 202 to 221°C (395.6 to 429.8°F) [Cleveland.]
Color	Amber.
Odor	Petroleum.
Relative density	0.87 to 0.882 @ 15.6°C
Vapor pressure	<0.13 kPa (<1 mm Hg)
Solubility	Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

Stability	The product is stable.
Hazardous polymerization	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	No specific data.
Materials to avoid	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

Acute toxicity	
Inhalation	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Skin	Irritating to skin.
Eyes	Irritating to eyes.

## 12 . Ecological information

Environmental effects	No known significant effects or critical hazards.
-----------------------	---



### 13 . Disposal considerations

**waste disposal**

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### 14 . Transport information

**AERG**

Not applicable.

**Regulatory information**

DOT/ IMDG/ IATA : Not regulated.

### 15 . Regulatory information

**United States**

**HCS Classification**

**U.S. Federal regulations**

Irritating material

TSCA 8(a) PAIR: Zinc Alkyldithiophosphate

**United States inventory (TSCA 8b):** All components are listed or exempted.

TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** No products were found.

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** No products were found.

**Clean Water Act (CWA) 307:** Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

**State regulations**

**Connecticut Carcinogen Reporting:** None of the components are listed.

**Connecticut Hazardous Material Survey:** None of the components are listed.

**Florida substances:** None of the components are listed.

**Illinois Chemical Safety Act:** None of the components are listed.

**Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.

**Louisiana Reporting:** None of the components are listed.

**Louisiana Spill:** None of the components are listed.

**Massachusetts Spill:** None of the components are listed.

**Massachusetts Substances:** None of the components are listed.

**Michigan Critical Material:** None of the components are listed.

**Minnesota Hazardous Substances:** None of the components are listed.

**New Jersey Hazardous Substances:** None of the components are listed.

**New Jersey Spill:** None of the components are listed.

**New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.

**New York Acutely Hazardous Substances:** None of the components are listed.

**New York Toxic Chemical Release Reporting:** None of the components are listed.

**Pennsylvania RTK Hazardous Substances:** None of the components are listed.



## 15. Regulatory information

California Prop. 65  
International regulations  
International lists

**Rhode Island Hazardous Substances:** None of the components are listed.

No products were found.

This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16. Other information

Label requirements

CAUSES EYE AND SKIN IRRITATION.

Hazardous Material  
Information System (U.S.A.)

HAZARD RATINGS

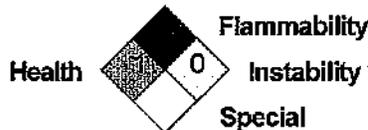
Health	1
Fire hazard	1
Physical hazard	0
Personal protection	B

4- Extreme  
3- Serious  
2- Moderate  
1- Slight  
0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

National Fire Protection  
Association (U.S.A.)



References

ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

Date of issue

03/15/2009  
1

Version

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



# SAFETY DATA SHEET

Transit Tough Full Synthetic dexos1/SN/GF-5 Motor Oils  
5W-30, 0W-20

## Section 1 - Identification

### 1.1 Product Identifiers

**Product Name** : TRANSIT TOUGH FULL SYN dexos1/SN/GF-5, 5W30 & 0W-20  
**Product Code(s)** : 57912, 59312

### 1.4 Supplier Information

Transit Lubricants, Ltd.  
5 Hill Street  
Kitchener, ON Canada  
N2G4R3

### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
United States +1(800) 424-9300  
International +01 (703) 527-3887

## Section 2 - Hazards Identification

### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** :  
**Signal Word** :

### 2.2 Label Elements

**No Classified Hazards.**

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
**P202** Do Not Handle Until All Safety Precautions Are Understood.  
**P281** Use Personal Protective Equipment As Required.

**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage** : **P405** Store Locked Up.

**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

### 2.3 Other Hazards

**Hazards not otherwise classified (HNOC)** : Avoid prolonged or repeated contact with motor oil. Use of good hygiene practices will reduce the likelihood of potential health effects. When exposed wash areas with soap and water and launder contaminated clothing.

## Section 3 - Composition / Information on Ingredients

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED NEUTRAL OIL-BASED	72623-86-0	60.0-85.0
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	0.0-25.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200)

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	5mg/m3	IUCLID
72623-86-0	Lubricating oils, petroleum, C15-30	5mg/m3	IUCLID

### 8.2 Exposure Controls

**Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.

**Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.

**Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.

**Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.

**Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: Amber
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 342C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.85
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard with normal usage.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: No data available.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
72623-86-0	Lubricating oils, petroleum, C15-30	Inhalation	2.18 mg/l	4h Rat	NLM_CIP

## Section 11 - Toxicological Information Continued

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Persistence and degradability</b>	: No Data Available.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur. No Data Available.
<b>Mobility in soil</b>	: No Data Available.
<b>Results of PBT and vPvB assessment</b>	: Not Determined.
<b>Other adverse effects</b>	: No Data Available.

### 12.2 LC50 Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
72623-86-0	Lubricating oils, petroleum, C15-30	LC50	5000mg/L	96h Oncorhynchus	IUCLID

### 12.3 Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID
72623-86-0	Lubricating oils, petroleum, C15-30	EC50	1000mg/L	48h Daphnia magna	IUCLID

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23, 24

## Section 15 - Regulatory Information

### Agency

(TSCA) Toxic : All components are either listed or not regulated US TSCA Inventory.  
 Substance Control Act

### Inventory Status

72623-86-0  
 64742-54-7

WHMIS Hazard Class : None

72623-86-0

Canada CPR : This product has been classified in accordance with the hazard criteria  
 Controlled Products Regulations (CPR) and the SDS contains all the information  
 required by the Regulations.

### CERCLA Sections

302, 313, 372

: This material does not contain reportable chemicals.

311, 312

: Acute Health Hazard	No	Pressure Hazard	No	Fire Hazard	No
Chronic Health Hazard	No	Reactive Hazard	No		

New Jersey  
 Right to Know  
 (NJ RTK)

This material does not contain reportable chemicals.

Massachusetts  
 Right to Know  
 (MA RTK)

This material does not contain reportable chemicals.

Pennsylvania  
 Right to Know  
 (PA RTK)

This material does not contain reportable chemicals.

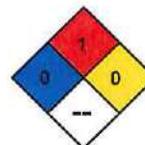
Rhode Island  
 Right to Know  
 (RI RTK)

This material does not contain reportable chemicals.

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.



## PRODUCT INFORMATION

**TRANSIT**

### TRANSIT TOUGH SYNTHETIC dexos1/SN/GF-5



**TRANSIT TOUGH SYNTHETIC DEXOS1/SN/GF-5** motor oils are the latest iteration in advanced protection for your gasoline-fueled GM vehicles. Available in 0W-20 and 5W-30 viscosities, these products are designed to inhibit LSPI (low speed pre-ignition), an engine event which can cause premature engine wear. These premium quality motor oils are specifically engineered for turbocharged direct-injected gasoline vehicles operating in low-speed and high-load driving conditions. These lubricants are designed to perform under extreme conditions, have excellent cold temperature properties, resist thermal breakdown, and exceed the performance requirements of API SN and ILSAC GF-5 licensing categories. **TRANSIT TOUGH SYNTHETIC DEXOS1/SN/GF-5** motor oils are licensed and approved by General Motors, dexos1™ Gen 2 License Number #D10546HH119.

**TRANSIT TOUGH SYNTHETIC DEXOS1/SN/GF-5** motor oils are recommended for use where GM dexos1™ Gen 2 is required, API SN, ILSAC GF-5, Ford M2C946-A (5W-30) M2C947-A (0W-20), Daimler Chrysler MS-6395. The 0W-20 viscosity is recommended for GM vehicles previously requiring dexos1™ 5W-20.

#### TYPICAL PROPERTIES

PROPERTY	0W-20	5W-30
Product Code	57912	59312
Specific Gravity	.845	.850
Viscosity, cSt @ 100°C	8.1	10.9
Viscosity, cSt @ 40°C	42.8	62.1
Viscosity, CCS cP @ (°C)	5459 (-35)	5000 (-30)
High Temp/High Shear Viscosity, cP @ 150°C	2.6	3.2
Viscosity Index	166	169
Flash Point, °C	227	227
Pour Point, °C	-51	-45
Zinc, Wt. (%)	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077
Calcium, Wt. (%)	0.135	0.135
NOACK, Wt. (%)	11	12

5 HILL STREET • KITCHENER, ON N2G4R3 • 1-800-531-LUBES • (519)-571-1220 • FAX (519)-579-0286

# SAFETY DATA SHEET

Transit Tough Full Synthetic API SN/ILSAC GF-5 Motor Oil 5W-20



## Section 1 - Identification

### 1.1 Product Identifiers

### 1.4 Supplier Information

**Product Name:** TRANSIT TOUGH FULL SYN API SN/ILSAC GF-5, 5W-20

**Product Code(s):** 58812

### 1.2 Product Usage

**Recommended Usage:** Engine Oil

**Restricted Usage:** Not intended for any other usage

### 1.3 Emergency Support

**Emergency Support :** CHEMTREC

United States +1(800) 424-9300

International +01 (703) 527-3887

## Section 2 - Hazards Identification

### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** :

**Signal Word** :

### 2.2 Label Elements

**No Classified Hazards.**

**Precautionary**

: **P201** Obtain Special Instructions Before Use.

**P202** Do Not Handle Until All Safety Precautions Are Understood.

**P281** Use Personal Protective Equipment As Required.

**Response**

: **P308** If Exposed Or Concerned: Get Medical Advice/attention.

**Storage**

: **P405** Store Locked Up.

**Disposal**

: **P501** Dispose Of Container According To Regional Regulations.

### 2.3 Other Hazards

**Hazards not otherwise classified (HNOC)**

: Avoid prolonged or repeated contact with motor oil. Use of good hygiene practices will reduce the likelihood of potential health effects. When exposed wash areas with soap and water and launder contaminated clothing.

## Section 3 - Composition / Information on Ingredients

### 31 Substance Details

Chemical Name	CAS #	%Weight
LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED NEUTRAL OIL-BASED	72623-86-0	60.0-85.0
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	0.0-25.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200)

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

**Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO<sub>2</sub>, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

#### Personal Protective Equipment

: Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

#### Required conditions

: Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

#### Designed Purpose

: This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	5mg/m3	IUCLID
72623-86-0	Lubricating oils, petroleum, C15-30	5mg/m3	IUCLID

### 8.2 Exposure Controls

#### Engineering Controls

: Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.

#### Environmental Exposure Controls

: General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.

#### Hygiene Measures

: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

#### Eye / Face Protection

: If contact is likely, safety glasses with side shields are recommended.

#### Skin / Hand Protection

: Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.

#### Respiratory Protection

: Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: Amber
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 342C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: <b>0.85</b>
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard with normal usage.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: No data available.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
72623-86-0	Lubricating oils, petroleum, C15-30	Inhalation	2.18 mg/l	4h Rat	NLM_CIP

## Section 11 - Toxicological Information Continued

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Persistence and degradability</b>	: No Data Available.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur. No Data Available.
<b>Mobility in soil</b>	: No Data Available.
<b>Results of PBT and vPvB assessment</b>	: Not Determined.
<b>Other adverse effects</b>	: No Data Available.

### 12.2 LC50 Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
72623-86-0	Lubricating oils, petroleum, C15-30	LC50	5000mg/L	96h Oncorhynchus	

mykiss IUCLID

### 12.3 Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID
72623-86-0	Lubricating oils, petroleum, C15-30	EC50	1000mg/L	48h Daphnia magna	IUCLID

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23, 24

## Section 15 - Regulatory Information

### Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Inventory Status

72623-86-0  
64742-54-7

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections 302, 313, 372

: This material does not contain reportable chemicals.

<b>311, 312</b>	: Acute Health Hazard	No Pressure Hazard	No	Fire Hazard	No
	: Chronic Health Hazard	No Reactive Hazard	No		

### New Jersey Right to Know (NJ RTK)

This material does not contain reportable chemicals.

### Massachusetts Right to Know (MA RTK)

This material does not contain reportable chemicals.

### Pennsylvania Right to Know (PA RTK)

This material does not contain reportable chemicals.

### Rhode Island Right to Know (RI RTK)

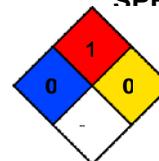
This material does not contain reportable chemicals.

## Section 16 - Other Information

American Conference of Governmental Industrial Hygienists  
Code of Federal Regulations  
United States Department of Transportation  
Globally Harmonized System of Classification and Labeling of Chemicals

**ACGIH** National Institute for Occupational Safety and Health  
**CFR** Occupational Safety and Health Administration  
**DOT** Permissible Exposure Limit  
**GHS** Right-to-Know  
**NIOSH** Short-term Exposure Limit  
**OSHA** Toxic Substances Control Act  
**PEL**  
**RTK** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**SARA**  
**TSCA**  
**WHMIS** **Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

# SAFETY DATA SHEET

TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4



## Section 1 - Identification

### 1.1 Product Identifiers

**Product Name** : TRANSIT TOUGH HEAVY DUTY 15W-40 CK-4  
**Product Code(s)** : 31212

### 1.2 Product Usage

**Recommended Usage** : Engine Oil  
**Restricted Usage** : Not Intended for any other usage

### 1.3 Emergency Support

**Emergency Support** : CHEMTREC  
United States +1(800) 424-9300  
International +01 (703) 527-3887

### 1.4 Supplier Information

Transit Lubricants, Ltd.  
5 Hill Street  
Kitchener, ON Canada N2G4R3  
**Phone** : 519-571-1220  
**Fax** : 519-579-2531

### 1.5 Manufactured For Transit

Advanced Lubrication Specialties  
420 Imperial Court  
Bensalem, PA 19020  
United States  
**Phone** : 215-214-2114  
**Fax** : 215-214-2118  
**Email** : sds@advancedlubes.com  
technical@advancedlubes.com  
sales@advancedlubes.com

## Section 2 - Composition / Information on Ingredients

### 2.1 Classification of the Substance or the Mixture

**GHS Rating(s)** : No Classified Hazards  
**Signal Word** : Not Applicable

### 2.2 Label Elements

No Classified Hazards.

**Precautionary** : **P201** Obtain Special Instructions Before Use.  
: **P202** Do Not Handle Until All Safety Precautions Are Understood.  
: **P281** Use Personal Protective Equipment As Required.  
**Response** : **P308** If Exposed Or Concerned: Get Medical Advice/attention.  
**Storage** : **P405** Store Locked Up.  
**Disposal** : **P501** Dispose Of Container According To Regional Regulations.

### 2.3 Other Hazards

**Hazards not otherwise classified (HNOC)** : Avoid prolonged or repeated contact with motor oil. Use of good hygiene practices will reduce the likelihood of potential health effects. When exposed wash areas with soap and water and launder contaminated clothing.

## Section 3 - Hazards Identification

### 3.1 Substance Details

Chemical Name	CAS #	%Weight
BASE OIL SEVERELY REFINED	64742-65-0	14.0
LUBRICANT BASE OIL (PETROLEUM)	64742-54-7	78.0

INERT The remaining percentage are not listed as Physical or Health Hazards (29 CFR 1910.1200) 8.0

Products containing mineral oil with less than 3% DMSO extract as measured by IP-346.

## Section 4 - First Aid Measures

### 4.1 First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for atleast 20 minutes. Get Medical Attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Maintain an open airway. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. get medical attention if symptoms occur.

### 4.2 Symptoms & Effects

- To Physician** : Treat symptomatically. Contact poison specialist if product has been ingested.
- Specific Treatment** : No Specific Treatment.

### 4.3 Medical Attention

- Protection of First Aiders** : No action should be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Note To Doctor** : Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

## Section 5 - Fire Fighting

### 5.1 Extinguishing Media

**Suitable Media** : CO2, Dry chemical, or Foam. Water can be used to cool and protect product. Do not use  
**Unsuitable Media** water jet as an extinguisher, it will spread the fire.

**Specific hazards arising from this product** : When heated, hazardous gases may be released including: sulfur dioxide. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. This material creates a special hazard because it floats on water. This material is harmful to aquatic life. Any fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### 5.3 Firefighters Advice

**Special protective equipment** : Fire Equipment Information: Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus(SCBA) with a full face -piece operated in positive pressure mode.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment

**General Measures** : No health effects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in section 8 of this SDS.

### 6.2 Environmental Precautions

**Non-Emergency Personnel** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution. Water Polluting Material may be harmful to the environment if released in large quantities.

### 6.3 Materials & Methods to Contain and Cleanup

**Reference Section 8** : Follow all protective equipment recommendations provided in Section 8.

**Spill Control Measures** : Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

**Containment and Cleanup** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage's with noncombustible, absorbent material e.g. sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor. Contaminated absorbent material may pose the same threat hazard as the spilled product.

## Section 7 - Handling & Storage

### 7.1 Safe Handling

**Personal Protective Equipment** : Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, keep lid tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### 7.2 Safe Storage

**Required conditions** : Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.

### 7.3 Specific End Use

**Designed Purpose** : This product is designed for use as a Engine Oil

## Section 8 - Exposure Control

### 8.1 United States Exposure Limits

CAS	Chemical Name	Exposure Limits	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy	5mg/m3	IUCLID
64742-65-0	Distillates, petroleum, solvent-dewaxed	5mg/m3	

### 8.2 Exposure Controls

- Engineering Controls** : Material should be handled in enclosed vessels and equipment, in which case general room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- Environmental Exposure Controls** : General room ventilation should be satisfactory. Local exhaust ventilation may be necessary if misting is generated.
- Hygiene Measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
- Eye / Face Protection** : If contact is likely, safety glasses with side shields are recommended.
- Skin / Hand Protection** : Butyl rubber. Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Use caution when opening manway covers of storage and transportation containers. 3-nitroaniline crystals may be present on the interior surface of these openings. 3-nitroaniline is toxic by dermal exposure.
- Respiratory Protection** : Use a properly fitted air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this a necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9 - Physical & Chemical Properties

### 9.1 Information On Basic Physical and Chemical Properties

Physical state	: Liquid
Color	: B&C
Odor	: Characteristic of Petroleum
Odor threshold	: No Data Available
pH	: No Data Available
Freezing Point	: No Data Available
Boiling Point / Range	: No Data Available
Flash Point COC	: 216C
Evaporation rate:	: No Data Available
Upper Explosive Limits (% air)	: No Data Available
Lower Explosive Limits (% air)	: No Data Available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: <1 mm Hg
Vapor density (air=1)	: > 1
Relative Density	: 0.88
Auto-ignition temperature	: Not Determined
Decomposition temperature	: Not Determined
Solubility in water	: Negligible, 0-1%
Partition coefficient, n-octanol/water	: No Data Available
Viscosity @ 40C	: 105 cst
Viscosity @ 100C	: 14 cst

## Section 10 - Stability & Reactivity

### 10.1 Material Analysis

Reactivity	: No Data Available
Chemical stability	: Stable Under Normal Circumstances.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.

### 10.2 Environmental

Conditions to avoid	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, Smoke, Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present

## Section 11 - Toxicological Information

### 11.1 Toxicological Effects

Ingestion Toxicity	: No hazard in normal industrial use.
Skin Contact	: This material is likely to be slightly irritating to skin based on animal data.
Inhalation Toxicity	: Non-hazardous under Respiratory Sensitization category.
Eye Contact	: The material is likely to be irritating to eyes based on animal data.

### 11.2 Inhalation Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
-----	---------------	------	-------	---------	--------

## Section 11 - Toxicological Information Continued

### 11.3 Dermal & Other Toxicity Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	LC50	5000mg/L	96h Oncorhynchus	IUCLID

<b>Sensitizer</b>	: No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	: Not expected to cause cancer. This product meets the IP-346 criteria of <3%.
<b>Reproductive Toxicity</b>	: No data available if components greater than 0.1% may cause birth defects.

## Section 12 - Ecological Information

### 12.1 Aquatic Toxicity

<b>Acute Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity</b>	: Non-hazardous under Aquatic Chronic Environment category.
<b>Persistence and degradability</b>	: Biodegrades slowly.
<b>Bioaccumulative potential</b>	: Bioconcentration may occur.
<b>Mobility in soil</b>	: This material is expected to have essentially no mobility in soil.
<b>Results of PBT and vPvB assessment</b>	: Not determined.
<b>Other adverse effects</b>	: No data available.

### 12.2 Ecological Data

CAS	Chemical Name	Test	Value	Species	Source
64742-54-7	Distillates, petroleum, hydrotreated heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID
64742-65-0	Distillates, petroleum, solvent-dewaxed heavy paraffinic	EC50	1000mg/L	48h Daphnia magna	IUCLID

## Section 13 - Disposal Considerations

### 13.1 Waste treatment

<b>Waste treatment methods</b>	: Dispose of according to Federal, State, Local, or Provincial regulations.
<b>Disposal Methods</b>	: Recycle used oil.
<b>Waste Disposal</b>	: Use material is non-hazardous according to environmental regulations.
<b>Contaminated packaging</b>	: Recycle containers whenever possible!

## Section 14 - Transportation Information

### 14.1 U.S. Department of Transportation (DOT)

<b>14.2. Shipping Description</b>	: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil) International Maritime Dangerous Goods (IMDG)
<b>14.2. DOT Compliance Note</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
<b>14.2. DOT Compliance Requirement</b>	: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24

## Section 15 - Regulatory Information

### Regulatory Agency

**(TSCA) Toxic Substance Control Act** : All components are either listed or not regulated US TSCA Inventory.

### Chemical List Status

64742-54-7  
64742-65-0  
84605-29-8

**WHMIS Hazard Class** : None

**Canada CPR** : This product has been classified in accordance with the hazard criteria Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

### CERCLA Sections

**302, 313, 372**

**311, 312**

This material contains the following listed chemicals :

:	Acute Health Hazard	No	Pressure Hazard	No	Fire Hazard	No
:	Chronic Health Hazard	No	Reactive Hazard	No		

**New Jersey Right to Know (NJ RTK)**

This material contains the following listed chemicals :

**Massachusetts Right to Know (MA RTK)**

This material contains the following listed chemicals

**Pennsylvania Right to Know (PA RTK)**

This material contains the following listed chemicals

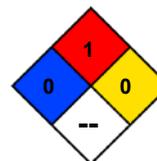
**Rhode Island Right to Know (RI RTK)**

This material contains the following listed chemicals :

## Section 16 - Other Information

**ACGIH** American Conference of Governmental Industrial Hygienists  
**CFR** Code of Federal Regulations  
**DOT** United States Department of Transportation  
**GHS** Globally Harmonized System of Classification and Labeling of Chemicals  
**NIOSH** National Institute for Occupational Safety and Health  
**OSHA** Occupational Safety and Health Administration  
**PEL** Permissible Exposure Limit  
**RTK** Right-to-Know  
**SARA** Short-term Exposure Limit  
**TSCA** Toxic Substances Control Act  
**WHMIS** Workplace Hazardous Materials Information System

**NFPA: HEALTH** 0  
**FLAMMABILITY** 1  
**INSTABILITY** 0  
**SPECIAL** -



**Disclaimer:** This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness.

Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use: 3E9

# Material Safety Data Sheet



## Transit Tough Heavy Duty 15W-40

### 1. Product and company identification

<b>Product name</b>	: Transit Tough Heavy Duty 15W-40
<b>Material uses</b>	: Heavy duty oil.
<b>Supplier/Manufacturer</b>	: Transit Lubricants, Ltd. 5 Hill Street Kitchener, ON Canada N2G4R3
<b>Code</b>	: 52412
<b>Validation date</b>	: 04/10/2015
<b>Responsible name</b>	: Atrion Regulatory Services, Inc.
<b>In case of emergency</b>	: Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday CHEMTREC: 800-424-9300 24 hrs Everyday

### 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Petroleum.
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
<b>Emergency overview</b>	: CAUTION!  MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  Slightly irritating to the eyes, skin and respiratory system. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: Slightly irritating to the respiratory system.
<b>Ingestion</b>	: Aspiration hazard if swallowed. Can enter lungs and cause damage.
<b>Skin</b>	: Slightly irritating to the skin.
<b>Eyes</b>	: Slightly irritating to the eyes.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.



## Transit Tough Heavy Duty 15W-40

### 2. Hazards identification

- Fertility effects** : No known significant effects or critical hazards.
- Over-exposure signs/symptoms**
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting
- Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

### 3. Composition/information on ingredients

#### United States

Name	CAS number	%
Base Oils.	See below.	>76
Zinc Alkyldithiophosphate	68649-42-3	1 - 5

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

### 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.



## Transit Tough Heavy Duty 15W-40

### 5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
  - Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

### 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

### 8 . Exposure controls/personal protection

	<b>United States</b>
<b>Product name</b>	<b>Exposure limits</b>
Base Oils.	<b>ACGIH TLV (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s).
	<b>OSHA PEL 1989 (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s).

Consult local authorities for acceptable exposure limits.



## Transit Tough Heavy Duty 15W-40

### 8 . Exposure controls/personal protection

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Personal protection

- Eyes** : Safety glasses.
- Skin** : Lab coat.
- Respiratory** : A respirator is not needed under normal and intended conditions of product use.
- Hands** : Natural rubber (latex).
- Personal protective equipment (Pictograms)** :



- HMIS Code/Personal protective equipment** : B
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### 9 . Physical and chemical properties

- Physical state** : Liquid.
- Color** : Amber. [Dark]
- Odor** : Petroleum.
- Relative density** : 0.87 @ 15.6°C
- Vapor pressure** : <0.13 kPa (<1 mm Hg)
- Solubility** : Insoluble in the following materials: cold water and hot water.

### 10 . Stability and reactivity

- Stability** : The product is stable.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## Transit Tough Heavy Duty 15W-40

### 11 . Toxicological information

#### Acute toxicity

- Inhalation** : Slightly irritating to the respiratory system.
- Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.
- Skin** : Slightly irritating to the skin.
- Eyes** : Slightly irritating to the eyes.

### 12 . Ecological information

- Environmental effects** : No known significant effects or critical hazards.

### 13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: **HANDLING AND STORAGE** and Section 8: **EXPOSURE CONTROLS/PERSONAL PROTECTION** for additional handling information and protection of employees.

### 14 . Transport information

- AERG** : Not applicable.
- Regulatory information**
  - DOT/ IMDG/ IATA** : Not regulated.

### 15 . Regulatory information

#### United States

- HCS Classification** : Not regulated.
- U.S. Federal regulations** : TSCA 4(a) final test rules: Diphenylamine  
TSCA 8(a) PAIR: Phenol, (tetrapropenyl) derivs.; Zinc Alkyldithiophosphate;  
Diphenylamine  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.  
**Clean Water Act (CWA) 307**: Zinc Alkyldithiophosphate  
**Clean Water Act (CWA) 311**: No products were found.  
**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.  
**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.  
**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.



# Transit Tough Heavy Duty 15W-40

## 15 . Regulatory information

- State regulations** :
- Connecticut Carcinogen Reporting:** None of the components are listed.
  - Connecticut Hazardous Material Survey:** None of the components are listed.
  - Florida substances:** None of the components are listed.
  - Illinois Chemical Safety Act:** None of the components are listed.
  - Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
  - Louisiana Reporting:** None of the components are listed.
  - Louisiana Spill:** None of the components are listed.
  - Massachusetts Spill:** None of the components are listed.
  - Massachusetts Substances:** The following components are listed: Base Oils.
  - Michigan Critical Material:** None of the components are listed.
  - Minnesota Hazardous Substances:** None of the components are listed.
  - New Jersey Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate
  - New Jersey Spill:** None of the components are listed.
  - New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
  - New York Acutely Hazardous Substances:** None of the components are listed.
  - New York Toxic Chemical Release Reporting:** None of the components are listed.
  - Pennsylvania RTK Hazardous Substances:** The following components are listed: Zinc Alkyldithiophosphate
  - Rhode Island Hazardous Substances:** None of the components are listed.
- California Prop. 65** : No products were found.
- International regulations**
- International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

- Label requirements** : MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

### Hazardous Material Information System (U.S.A.)

Health	2
Fire hazard	1
Physical Hazard	0
Personal protection	B

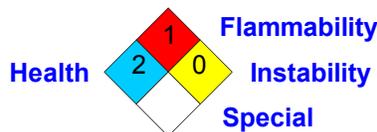
### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)



### References

- ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.



## Transit Tough Heavy Duty 15W-40

### 16 . Other information

**Date of issue** : 04/10/2015  
**Date of previous issue** :  
**Version** : 1

#### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Material Safety Data Sheet

Transit Tough Synthetic Blend: 5W-30 SN/GF-5; 5W-20 SN/GF-5; 10W-30 SN/GF-5



## 1. Product and company identification

**Product name** : Transit Tough Synthetic Blend: 5W-30 SN/GF-5; 5W20 SN/GF-5; 10W30 SN/GF-5  
**Material uses** : Motor Oils  
**Supplier/Manufacturer** : Transit Lubricants, Ltd.  
5 Hill Street  
Kitchener, ON Canada N2G4R3  
**Code** : 59014; 59114; 59214  
**Validation date** : 04/10/2015  
**Responsible name** : Atrion Regulatory Services, Inc.  
**In case of emergency** : Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday  
CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards identification

**Physical state** : Liquid.  
**Odor** : Petroleum.  
**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  
**Emergency overview** : CAUTION!  
MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  
Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.  
**Potential chronic health effects**  
**Chronic effects** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.  
**Over-exposure signs/symptoms**  
**Inhalation** : No specific data.  
**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting



## 2. Hazards identification

**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3. Composition/information on ingredients

### United States

Name	CAS number	%
Base Oils.	64741-88-4	>50

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

**Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

**Flammability of the product** : May be combustible at high temperature.

### Extinguishing media

**Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Not suitable** : None known.

**Hazardous thermal decomposition products** : No specific data.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Eyes** : Safety glasses.
- Skin** : Lab coat.



## 8 . Exposure controls/personal protection

**Respiratory** : A respirator is not needed under normal and intended conditions of product use.

**Hands** : Natural rubber (latex).

**Personal protective equipment (Pictograms)** :



**HMIS Code/Personal protective equipment** : B

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

**Physical state** : Liquid.

**Flash point** : Open cup: 202 to 221°C (395.6 to 429.8°F) [Cleveland.]

**Color** : Amber.

**Odor** : Petroleum.

**Relative density** : 0.87 to 0.882 @ 15.6°C

**Vapor pressure** : <0.13 kPa (<1 mm Hg)

**Solubility** : Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

**Stability** : The product is stable.

**Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions to avoid** : No specific data.

**Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

**Acute toxicity**

**Inhalation** : No known significant effects or critical hazards.

**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.

**Skin** : Slightly irritating to the skin.

**Eyes** : Slightly irritating to the eyes.

## 12 . Ecological information

**Environmental effects** : No known significant effects or critical hazards.



## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: **HANDLING AND STORAGE** and Section 8: **EXPOSURE CONTROLS/PERSONAL PROTECTION** for additional handling information and protection of employees.

## 14 . Transport information

**AERG** : Not applicable.

**Regulatory information**  
**DOT/ IMDG/ IATA** : Not regulated.

## 15 . Regulatory information

### United States

**HCS Classification** : Not regulated.

**U.S. Federal regulations** : TSCA 8(a) PAIR: Zinc Alkyldithiophosphate  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006

**SARA 302/304/311/312 extremely hazardous substances**: No products were found.

**SARA 302/304 emergency planning and notification**: No products were found.

**SARA 302/304/311/312 hazardous chemicals**: No products were found.

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.

**Clean Water Act (CWA) 307**: Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311**: No products were found.

**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.

**State regulations** : **Connecticut Carcinogen Reporting**: None of the components are listed.  
**Connecticut Hazardous Material Survey**: None of the components are listed.  
**Florida substances**: None of the components are listed.  
**Illinois Chemical Safety Act**: None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act**: None of the components are listed.  
**Louisiana Reporting**: None of the components are listed.  
**Louisiana Spill**: None of the components are listed.  
**Massachusetts Spill**: None of the components are listed.  
**Massachusetts Substances**: None of the components are listed.  
**Michigan Critical Material**: None of the components are listed.  
**Minnesota Hazardous Substances**: None of the components are listed.  
**New Jersey Hazardous Substances**: None of the components are listed.  
**New Jersey Spill**: None of the components are listed.  
**New Jersey Toxic Catastrophe Prevention Act**: None of the components are listed.  
**New York Acutely Hazardous Substances**: None of the components are listed.  
**New York Toxic Chemical Release Reporting**: None of the components are listed.  
**Pennsylvania RTK Hazardous Substances**: None of the components are listed.  
**Rhode Island Hazardous Substances**: None of the components are listed.



## 15 . Regulatory information

- California Prop. 65 : No products were found.
- International regulations
- International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

**Label requirements** : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

**Hazardous Material Information System (U.S.A.)** :

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)** :



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

**Date of issue** : 04/10/2015  
**Date of previous issue** :  
**Version** : 1

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Material Safety Data Sheet



Transit Tough Synthetic Blend: 5W-30 SN/GF-5; 5W-20 SN/GF-5; 10W-30 SN/GF-5

## 1. Product and company identification

<b>Product name</b>	: Transit Tough Synthetic Blend: 5W-30 SN/GF-5; 5W20 SN/GF-5; 10W30 SN/GF-5
<b>Material uses</b>	: Motor Oils
<b>Supplier/Manufacturer</b>	: Transit Lubricants, Ltd. 5 Hill Street Kitchener, ON Canada N2G4R3
<b>Code</b>	: 59014; 59114; 59214
<b>Validation date</b>	: 04/10/2015
<b>Responsible name</b>	: Atrion Regulatory Services, Inc.
<b>In case of emergency</b>	: Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Petroleum.
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
<b>Emergency overview</b>	: CAUTION!  MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: Aspiration hazard if swallowed. Can enter lungs and cause damage.
<b>Skin</b>	: Slightly irritating to the skin.
<b>Eyes</b>	: Slightly irritating to the eyes.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Over-exposure signs/symptoms</b>	
<b>Inhalation</b>	: No specific data.
<b>Ingestion</b>	: Adverse symptoms may include the following: nausea or vomiting



## 2 . Hazards identification

**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

### United States

Name	CAS number	%
Base Oils.	64741-88-4	>50

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

## 4 . First aid measures

**Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5 . Fire-fighting measures

**Flammability of the product** : May be combustible at high temperature.

### Extinguishing media

**Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Not suitable** : None known.

**Hazardous thermal decomposition products** : No specific data.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Eyes** : Safety glasses.
- Skin** : Lab coat.



## 8 . Exposure controls/personal protection

- Respiratory** : A respirator is not needed under normal and intended conditions of product use.
- Hands** : Natural rubber (latex).
- Personal protective equipment (Pictograms)** :
- 
- HMIS Code/Personal protective equipment** : B
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Open cup: 202 to 221°C (395.6 to 429.8°F) [Cleveland.]
- Color** : Amber.
- Odor** : Petroleum.
- Relative density** : 0.87 to 0.882 @ 15.6°C
- Vapor pressure** : <0.13 kPa (<1 mm Hg)
- Solubility** : Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

- Stability** : The product is stable.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

- Acute toxicity**
- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.
- Skin** : Slightly irritating to the skin.
- Eyes** : Slightly irritating to the eyes.

## 12 . Ecological information

- Environmental effects** : No known significant effects or critical hazards.



## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

**AERG** : Not applicable.

**Regulatory information**

**DOT/ IMDG/ IATA** : Not regulated.

## 15 . Regulatory information

**United States**

**HCS Classification** : Not regulated.

**U.S. Federal regulations** : TSCA 8(a) PAIR: Zinc Alkyldithiophosphate  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.

**Clean Water Act (CWA) 307**: Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311**: No products were found.

**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.

**State regulations** : **Connecticut Carcinogen Reporting**: None of the components are listed.  
**Connecticut Hazardous Material Survey**: None of the components are listed.  
**Florida substances**: None of the components are listed.  
**Illinois Chemical Safety Act**: None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act**: None of the components are listed.  
**Louisiana Reporting**: None of the components are listed.  
**Louisiana Spill**: None of the components are listed.  
**Massachusetts Spill**: None of the components are listed.  
**Massachusetts Substances**: None of the components are listed.  
**Michigan Critical Material**: None of the components are listed.  
**Minnesota Hazardous Substances**: None of the components are listed.  
**New Jersey Hazardous Substances**: None of the components are listed.  
**New Jersey Spill**: None of the components are listed.  
**New Jersey Toxic Catastrophe Prevention Act**: None of the components are listed.  
**New York Acutely Hazardous Substances**: None of the components are listed.  
**New York Toxic Chemical Release Reporting**: None of the components are listed.  
**Pennsylvania RTK Hazardous Substances**: None of the components are listed.  
**Rhode Island Hazardous Substances**: None of the components are listed.



## 15 . Regulatory information

- California Prop. 65** : No products were found.
- International regulations**
- International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

**Label requirements** : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

**Hazardous Material Information System (U.S.A.)** :

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

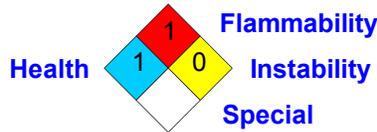
### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)** :



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

**Date of issue** : 04/10/2015  
**Date of previous issue** :  
**Version** : 1

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Material Safety Data Sheet



Transit Tough Full Synthetic dexos1/SN/GF-5 Motor Oils; 5W-30, 5W-20, 0W-20

## 1. Product and company identification

<b>Product name</b>	: Transit Tough Full Synthetic dexos1/SN/GF-5; 5W-30, 5W-20, 0W-20
<b>Material uses</b>	: Motor oils.
<b>Supplier/Manufacturer</b>	: Transit Lubricants, Ltd. 5 Hill Street Kitchener, ON Canada N2G4R3
<b>Code</b>	: 59312, 59712, 57912
<b>Validation date</b>	: 04/10/2015
<b>Responsible name</b>	: Atrion Regulatory Services, Inc.
<b>In case of emergency</b>	: Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Petroleum.
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
<b>Emergency overview</b>	: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: No known significant effects or critical hazards.
<b>Eyes</b>	: No known significant effects or critical hazards.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Over-exposure signs/symptoms</b>	
<b>Inhalation</b>	: No specific data.
<b>Ingestion</b>	: No specific data.
<b>Skin</b>	: No specific data.
<b>Eyes</b>	: No specific data.
<b>Medical conditions aggravated by over-exposure</b>	: None known.

See toxicological information (section 11)



### 3 . Composition/information on ingredients

#### United States

Name	CAS number	%
Base Oils.	See below.	>87

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### 4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### 5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
  - Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
  - Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.



## 6 . Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

- Eyes** : Safety glasses.
- Skin** : Lab coat.
- Respiratory** : A respirator is not needed under normal and intended conditions of product use.
- Hands** : Disposable vinyl gloves.
- Personal protective equipment (Pictograms)** :



- HMIS Code/Personal protective equipment** : A
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



## 9 . Physical and chemical properties

<b>Physical state</b>	: Liquid.
<b>Flash point</b>	: Open cup: 210°C (410°F) [Cleveland.]
<b>Color</b>	: Amber. [Dark]
<b>Odor</b>	: Petroleum.
<b>Relative density</b>	: 0.87 @ 15.6°C
<b>Vapor pressure</b>	: <0.13 kPa (<1 mm Hg)
<b>Solubility</b>	: Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

<b>Stability</b>	: The product is stable.
<b>Hazardous polymerization</b>	: Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Materials to avoid</b>	: Reactive or incompatible with the following materials: oxidizing materials and reducing materials.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

### Acute toxicity

<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: No known significant effects or critical hazards.
<b>Eyes</b>	: No known significant effects or critical hazards.

Not available.

## 12 . Ecological information

<b>Environmental effects</b>	: No known significant effects or critical hazards.
------------------------------	---

## 13 . Disposal considerations

<b>Waste disposal</b>	: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
-----------------------	---

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.



## 14 . Transport information

**AERG** : Not applicable.

**Regulatory information**

**DOT/ IMDG/ IATA** : Not regulated.

## 15 . Regulatory information

**United States**

**HCS Classification** : Not regulated.

**U.S. Federal regulations** : TSCA 8(a) PAIR: Zinc Alkyldithiophosphate  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006

**SARA 302/304/311/312 extremely hazardous substances**: No products were found.

**SARA 302/304 emergency planning and notification**: No products were found.

**SARA 302/304/311/312 hazardous chemicals**: No products were found.

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.

**Clean Water Act (CWA) 307**: Zinc Alkyldithiophosphate

**Clean Water Act (CWA) 311**: No products were found.

**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.

**State regulations** :

- Connecticut Carcinogen Reporting**: None of the components are listed.
- Connecticut Hazardous Material Survey**: None of the components are listed.
- Florida substances**: None of the components are listed.
- Illinois Chemical Safety Act**: None of the components are listed.
- Illinois Toxic Substances Disclosure to Employee Act**: None of the components are listed.
- Louisiana Reporting**: None of the components are listed.
- Louisiana Spill**: None of the components are listed.
- Massachusetts Spill**: None of the components are listed.
- Massachusetts Substances**: None of the components are listed.
- Michigan Critical Material**: None of the components are listed.
- Minnesota Hazardous Substances**: None of the components are listed.
- New Jersey Hazardous Substances**: None of the components are listed.
- New Jersey Spill**: None of the components are listed.
- New Jersey Toxic Catastrophe Prevention Act**: None of the components are listed.
- New York Acutely Hazardous Substances**: None of the components are listed.
- New York Toxic Chemical Release Reporting**: None of the components are listed.
- Pennsylvania RTK Hazardous Substances**: None of the components are listed.
- Rhode Island Hazardous Substances**: None of the components are listed.

**California Prop. 65** : No products were found.

**International regulations**

**International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).



## 16 . Other information

**Label requirements** : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Not available.

**Hazardous Material Information System (U.S.A.)** :

Health	0
Fire hazard	1
Physical Hazard	0
Personal protection	A

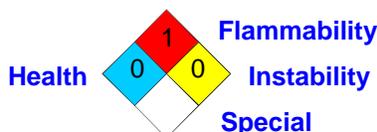
### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)** :



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

**Date of issue** : 04/10/2015  
**Date of previous issue** :  
**Version** : 1

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**PRODUCT INFORMATION**  
**TRANSIT TOUGH SYNTHETIC BLEND**  
**GF-5 MOTOR OILS**



**TRANSIT TOUGH SYNTHETIC BLEND GF-5 MOTOR OILS** are specially formulated using synthetic and virgin Group II base oils and high performance additive packages to provide superior performance in gasoline fueled and flex-fueled engines. These oils are formulated for excellent oxidation stability and low temperature properties to insure protection during cold starts. **TRANSIT TOUGH SYNTHETIC BLEND GF-5** engine oils exceed the requirements of ILSAC GF-5 and are "Resource Conserving" for improved fuel economy.

**TYPICAL PROPERTIES**

PROPERTY	5W-20	5W-30
Product Code	590	591
Density	7.16	7.17
Viscosity, cSt @ 100°C	8.5	10.8
Viscosity, cSt @ 40°C	47.0	67.0
Viscosity, CCS, cP @ °C	6,200 (-30)	6,000 (-30)
Viscosity Index	150	160
Flash Point, PMCC °C	195	195
Pour Point, °C	-41	-41
Zinc, Wt. (%)	0.085	0.085
Phosphorous, Wt. (%)	0.077	0.077
NOACK, Wt. (%)	14.5	14.5
HT/HS, Cp @150°C	2.6	3.0
<b>SPECIFICATION</b>		
API SN with Resource Conserving	X	X
ILSAC GF-5	X	X
CHRYSLER MS-6395	X	X
FORD WSS-M2C945-A	X	
FORD WSS-M2C946-A		X



## PRODUCT INFORMATION

### TRANSIT TRACTOR HYDRAULIC FLUID

TRANSIT TRACTOR HYDRAULIC FLUID is a premium, exceptional high quality universal tractor hydraulic fluid for use in transmissions, final drives and hydraulic systems of all major brands of tractors and other farm equipment using a common fluid reservoir. This fluid incorporates the latest additive chemistry to provide maximum protection for all systems requiring a universal fluid.

TRANSIT TRACTOR HYDRAULIC FLUID meets the following specifications: **API GL-4**, **JOHN DEERE** J14B/C, J20A/B, J20C (HYGARD), J21A, JD 303 FLUID; **FORD NEW HOLLAND** M2C41-B, M2C48-B, M2C53-A, M2C53-B, M2C86-B/C, M2C134-A/B/C/D, FNHA-2-C-201; **CNH MAT** 3525; **MASSEY FERGUSON** M-1110, M-1127B, M-1129A, M-1135, M-1141 (PERMATRAN III); **CASE** JIC 143, JIC 144, MS-1204/JIC 185, MS-1205, MS-1206 (PTF), MS-1207 (HY TRAN PLUS), MS-1209 (HY-TRAN ULTRA) MS-1210/JIC 145 (TCH FLUID); **WHITE FARM EQUIPMENT** Q-1705, Q-1722, Q-1766B, Q-1802 (TYPE 55 FLUID), Q-1826 (HTF); **AGCO POWER FLUID** 821XL, PF 821; **ALLISON TYPE** C-4, C-3; **CATERPILLAR TO-2**; **HESSTON FIAT AF-87**; **KUBOTA UDT**; **MINNEAPOLIS-MOLINE** 35154, 35202, 35301; **VICKERS (EATON HYDRAULIC REQ'MENTS)** M-2950-S, I-286-S, 35VQ25; **SUNDSTRAND** HYDROSTATIC TRANSMISSION FLUID; **DENNISON HF—0**, HF-1, HF-2; **Volvo** WB 101/BM

#### TYPICAL PROPERTIES

PRODUCT CODE 44112

Viscosity, cSt @ 40°C	59.5
Viscosity, cSt @ 100°C	9.25
Viscosity, cP @ -20°C	4,500
Viscosity, cP @ -35°C	49,000
Viscosity Index	150
Pour Point, °F	-44
Flash Point, °F	432
Sulfated Ash, wt%	1.48
Total Base Number	10.1
Zinc, wt%	0.157

# Material Safety Data Sheet

Transit Universal Synthetic LV Dexron VI ATF



## 1. Product and company identification

**Product name** : Transit Universal Synthetic LV Dexron VI ATF  
**Material uses** : Transmission Oil  
**Supplier/Manufacturer** : Transit Lubricants, Ltd.  
 5 Hill Street  
 Kitchener, ON Canada N2G4R3  
**Code** : 51612  
**Validation date** : 04/10/2015  
**Responsible name** : Atrion Regulatory Services, Inc.  
**In case of emergency** : Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday  
 CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards identification

**Physical state** : Liquid.  
**Odor** : Petroleum. [Slight]  
**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  
**Emergency overview** : CAUTION!  
 MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  
 Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.  
**Potential chronic health effects**  
**Chronic effects** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.  
**Over-exposure signs/symptoms**  
**Inhalation** : No specific data.  
**Ingestion** : Adverse symptoms may include the following:  
 nausea or vomiting



## 2. Hazards identification

- kin : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Eyes : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Medical conditions aggravated by over-exposure : None known.

See toxicological information (section 11)

## 3. Composition/information on ingredients

### United States

Name	CAS number	%
Base Oil	See below.	>88

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in is section.

## 4. First aid measures

- Eye contact : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product : May be combustible at high temperature.
- Extinguishing media :
  - Suitable : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable : None known.
- Hazardous thermal decomposition products : No specific data.
- Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
  - Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
  - Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

<b>United States</b>	
<b>Product name</b>	<b>Exposure limits</b>
Distillates (petroleum), solvent-refined heavy paraffinic	<b>NIOSH REL (United States, 12/2001).</b> STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Mist TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Mist
Distillates (petroleum), hydrotreated heavy paraffinic	<b>ACGIH TLV (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s). <b>OSHA PEL 1989 (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s).

### Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.



## 8 . Exposure controls/personal protection

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Eyes** : Safety glasses.
- Skin** : Lab coat.
- Respiratory** : A respirator is not needed under normal and intended conditions of product use.
- Hands** : Natural rubber (latex).
- Personal protective equipment (Pictograms)** : 
- HMIS Code/Personal protective equipment** : B
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Open cup: 177°C (350.6°F) [Cleveland.]
- Color** : Red.
- Odor** : Petroleum. [Slight]
- Relative density** : 0.86 to 0.87 @ 15.6°C
- Vapor pressure** : <0.13 kPa (<1 mm Hg)
- Evaporation rate** : <1 (butyl acetate = 1)
- Solubility** : Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

- Stability** : The product is stable.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## 11 . Toxicological information

### Acute toxicity

- Inhalation : No known significant effects or critical hazards.
- Ingestion : Aspiration hazard if swallowed. Can enter lungs and cause damage.
- Skin : Slightly irritating to the skin.
- Eyes : Slightly irritating to the eyes.

## 12 . Ecological information

- Environmental effects : No known significant effects or critical hazards.

## 13 . Disposal considerations

- Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

- AERG : Not applicable.
- Regulatory information
  - DOT/IMDG/IATA : Not regulated.

## 15 . Regulatory information

### United States

- HCS Classification : Not regulated.
- U.S. Federal regulations : **United States inventory (TSCA 8b):** All components are listed or exempted.  
**SARA 302/304/311/312 extremely hazardous substances:** No products were found.  
**SARA 302/304 emergency planning and notification:** No products were found.  
**SARA 302/304/311/312 hazardous chemicals:** No products were found.  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** No products were found.  
**Clean Water Act (CWA) 307:** Ethylbenzene  
**Clean Water Act (CWA) 311:** Xylene; Ethylbenzene  
**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.  
**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.  
**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.
- State regulations : **Connecticut Carcinogen Reporting:** None of the components are listed.  
**Connecticut Hazardous Material Survey:** None of the components are listed.  
**Florida substances:** None of the components are listed.  
**Illinois Chemical Safety Act:** None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.  
**Louisiana Reporting:** None of the components are listed.  
**Louisiana Spill:** None of the components are listed.



### Regulatory information

**Massachusetts Spill:** None of the components are listed.  
**Massachusetts Substances:** None of the components are listed.  
**Michigan Critical Material:** None of the components are listed.  
**Minnesota Hazardous Substances:** None of the components are listed.  
**New Jersey Hazardous Substances:** None of the components are listed.  
**New Jersey Spill:** None of the components are listed.  
**New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.  
**New York Acutely Hazardous Substances:** None of the components are listed.  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** None of the components are listed.  
**Rhode Island Hazardous Substances:** None of the components are listed.

California Prop. 65 : No products were found.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Ethylbenzene	Yes.	No.	No.	No.

#### International regulations

**International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

### 16 . Other information

**Label requirements** : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

**Hazardous Material Information System (U.S.A.)** :

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

#### HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)** :



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

**Date of issue** : 04/10/2015  
**Date of previous issue** :  
**Version** : 1



## 16 . Other information

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



## PRODUCT INFORMATION

### TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF

TRANSIT Uni-Syn LV Dexron VI ATF is a specifically designed, fully synthetic, next generation licensed fluid for use in General Motors vehicles where Dexron VI is specified, as well as most other ATF applications (check your viscosity requirements). Formulated for use in low viscosity ATF applications (Mercon LV, SP; Toyota WS, etc.) and designed for the latest six and seven speed automatic transmissions. TRANSIT Uni-Syn LV Dexron VI ATF is also completely backward compatible for use in older GM vehicles that specify Dexron III H, Dexron IIIG, Dexron IID, Dexron II or Dexron fluids. This fluid has shown outstanding performance in friction durability, shear and oxidation stability and provides longer service life with superior foam resistance, minimization of deposits and consistent shift performance. This fluid is approved by General Motors under license number J-60155.

#### PRODUCT CODE 516

Property	ASTM	Typical value
Density, @ 15°C	D4052	.844
Color	Red	
Flash Point, COC °C	D92	191
Viscosity, Cst @ 40°C	D445	29.8
Viscosity, Cst @ 100°C	D445	5.98
Viscosity Index	D2270	152
Viscosity, cP @ -40°C	D2983M	11,500
Pour Point, °C	D97	-50
Phosphorous, %wt.	PCM438	.0194



## PRODUCT INFORMATION

### Transit Uni-Syn LV Dexron VI ATF Application Chart

<i>Specification</i>	<i>Uni-Syn LV Dexron VI ATF Code 516</i>
Aisin Warner AW-1	X
Allison C-4	X
Allison TES-295**	X
Audi G-052-025-A2	X
Audi G-052-161-A1	X
Audi G-052-162-A1	X
Audi G-055-025-A2	X
BMW 5HP24	X
BMW 5HP30	X
BMW 7045E	X
BMW LA2634	X
BMW LT71141	X
BMW ZF 5HP18FL	X
Caterpillar TO-2	X
Chrysler ATF + <sup>o</sup>	X
Chrysler ATF +2 <sup>o</sup>	X
Chrysler ATF +3 <sup>o</sup>	X
Chrysler ATF +4 <sup>o</sup>	X
DEXRON <sup>o</sup>	X
DEXRON <sup>o</sup> -IID	X
DEXRON <sup>o</sup> -IIE	X
DEXRON <sup>o</sup> -III	X
DEXRON <sup>o</sup> -III G	X
DEXRON <sup>o</sup> -III H	X
DEXRON <sup>o</sup> -VI	X
Esso LT 71141	X

5 Hill Street Kitchener, Ontario N2G 4R3 \*1-800-531-5823 \*519-571-1220 Fax 519-579-0286



## PRODUCT INFORMATION

Ford M2C138CJ	X
Ford M2C166H	X
Ford FNR5	X
GM99861695 (Aisin AW)	X
GM TASA	X
Honda ATF-Z1	X
Honda Premium	X
Hyundai SP-II, III, & IV	X
Hyundai NWS-9638	X
Jaguar ZF 5HP24	X
Jaguar LT1141	X
Jaguar JLM20238	X
Jaguar ATF 3403-M115	X
JASO 1A-02	X
JASO 2A-02	X
JWS 3324	X
JWS 3309	X
KIA ATF RED 1	X
KIA SP-II	X
KIA SP-III	X
KIA SP-IV	X
MAN 339 Type Z-1 and V-1	X
MAN 339 Type Z-2 and V-2	X
MAN 339F	X
Mazda ATF-III	X
Mazda M-V	X
MB223.2	X
MB236.1	X
MB236.2	X

5 Hill Street Kitchener, Ontario N2G 4R3 \*1-800-531-5823 \*519-571-1220 Fax 519-579-0286



## PRODUCT INFORMATION

MB236.5	X
MB236.6	X
MB236.7	X
MB236.8	X
MB236.9	X
MB236.10	X
MB236.11	X
MB236.12	N/A
MERCON®	X
MERCON® V	X
MERCON® LV	X
MERCON® SP	X
Mitsubishi Diamond SP-II	X
Mitsubishi Diamond SP-III	X
Mitsubishi Diamond SP-IV	X
NAG 1 (Jeep Cherokee)	X
NAG 1 (Chrysler)	X
Nissan Matic-D	X
Nissan Matic-S (replaces J)	X
Nissan Matic-K	X
Peugeot ZF 4HP20	X
Porsche ZF 5HP19F	X
Porsche ATF3403-115	X
Porsche T-IV	X
Shell 3403-M115	X
Shell LA2634	X
Subaru ATF/ATF-HP	X
Texaco 7045-E	X
Texaco ETL-8072B	X



## PRODUCT INFORMATION

Toyota T-III	X
Toyota T-IV	X
Toyota WS	X
Voith 55.6336.32 (G1363)	X
Voith 55.3665	X
Voith Turbo	X
Volvo 97340	X
Volvo 97341	X
VW TL52162	X
VW G-052-162-A2	X
VW G-053-025-A2	X
VW G-053-162-A1	X
ZF Ecomat	X
ZF TE-ML 02F	X
ZF TE-ML 03D	X
ZF TE-ML 04D	X
ZF TE-ML 09	X
ZF TE-ML 11A	X
ZF TE-ML 14A	X
ZF TE-ML 14B	X
ZF TE-ML 14C	X
ZF TE-ML 16L	X
ZF TE-ML 17C	X

X = Suitable for Use  
 N/A = Not Applicable/Not Suitable for Use  
 \* Always refer to owner's manual for required fluid specifications.  
 \*\* Does not meet the extended drain interval requirement

## **WEBA TECHNOLOGY WARNING & DISCLAIMER**

**WEBA Technology is providing the information in this product bulletin as a general guideline for your company to use to create product literature. You are responsible for testing your product to ensure that it complies with the listed standards and specifications and for completing the second page of the bulletin to accurately reflect the content and performance of your finished product and for confirming that the data contained is accurate for D.O.T., State, Country or other applicable regulations. WEBA is not responsible for any representation you make regarding your product and this document only sets forth general guidelines and does not prove that your product meets a particular standard when using a WEBA METALGUARD® additive package(s). Your company is responsible for all aspects of any ASTM or OEM tests for the standards listed, including without limitation scheduling, data and costs of such tests. If you have any questions or need additional information, please contact your WEBA salesperson.**

**NOTE: The ASTM chloride specification for reclaimed/recycled prediluted (50/50) antifreeze is 33 ppm max. If you produce reclaimed glycol/antifreeze you may raise/change this specification on the second page of the document. If you use virgin glycol you must meet the listed 25 ppm max. ASTM specification.**

**This file updated: June 10, 2011  
Supersedes: January 5, 2011**

# ThermoGuard Extended Life

*Prediluted, 50/50, Precharged, Extended Life, Hybrid Organic Acid Technology (HOAT), Low-Silicate Antifreeze - Formulated to be Compatible with All Types of Antifreeze*

## Industry Standards

This extended-life antifreeze/coolant meets the following industry specifications:

- ASTM D3306 (automotive/light-duty)
- ASTM D4985 (heavy-duty diesel/low silicate)
- ASTM D6210/11 (fully formulated and precharged)
- TMC of ATA RP329/338\*

*\*The Maintenance Council of the American Trucking Assoc. Antifreeze also meets the non-phosphate requirements of European OEM's and non-silicate requirements of Japanese OEM's*

## Contact Information

Jack Smith Fuels Ltd.  
351 Queen Street North  
Tilbury, ON N0P 2L0  
PH: 519-682-0111  
FX: 519-682-2453  
1-800-265-2120

This prediluted, 50/50 antifreeze/coolant is a universal/global, hybrid organic acid technology (HOAT), extended life, low-silicate, non-phosphate product suitable for automotive/light duty and heavy duty diesel applications. Since this is a HOAT extended life antifreeze/coolant it combines organic acid salts with conventional inorganic salts and azoles; this makes it compatible with all types of both extended life and conventional technology antifreeze/coolants.

This coolant is precharged, meaning that it contains a minimum of 1200 ppm nitrites. Its additives effectively control wet sleeve cylinder liner pitting/corrosion in heavy duty diesel engines. The primary corrosion inhibition system consists of a combination of salts of carboxylic and phosphono-carboxylic acids. These inhibitors deplete very slowly relative to conventional inorganic salt compounds, providing the extended service life of this antifreeze. It utilizes a low-silicate level (less than 250 ppm as silicon) and is free of phosphates and amines.

In addition, this antifreeze/coolant contains an advanced inhibitor system that provides a wide range of inhibitors which protect all cooling system metals. Together with the glycol base, these inhibitors combined with other additives, give year-round protection against freeze-ups, boil-overs and engine cooling system corrosion. This antifreeze/coolant also includes ingredients to disperse minor oil leakage, prevent fouling, control hot surface scaling and it will not damage auto finishes or rubber parts.

In automobiles, light trucks, SUV's, vans and other light duty applications, this product will provide a service life in excess of 5 years or 150,000 miles. In heavy-duty diesel applications (in which a formal monitoring and maintenance program is in place) it can provide a service life of 600,000 miles with the addition of our heavy-duty supplemental coolant additive at 300,000 miles.

### PHYSICAL PROPERTIES

<b>Antifreeze Glycols</b>	mass %	48.0 min.
<b>Corrosion Inhibitors</b>	mass %	1.1 min.
<b>Water</b>	mass %	49.0 max.
<b>Flash Point</b>	°F	None
<b>Weight per gallon at 60° F-16° C</b>	lbs.	8.9 min.
<b>Silicates</b>	mass %	< 250 ppm

% Antifreeze	Freezing Point		Boiling Point*	
	°F	°C	°F	°C
40%	-9 max	-22 max	220 min	104 min
50%	-34 max	-36 max	226 min	107 min
70%	-84 max	-64 max	240 min	115 min

*\*Boiling point shown using conventional 15 psi radiator cap.*

# Heavy-Duty Extended Life Antifreeze/Coolant Product Data Sheet

Characteristic	Specification	Company Typical	ASTM Method
Chloride	33 ppm, max.		D3634
Specific gravity, 60/60°F	1.065 min		D1122
Nitrite	1200 ppm min		D5827
Boiling Point, 50% V/V	226°F/107°C min.		D1120
Freezing Point, 50% V/V	-34°F/-36°C min.		D1177
Effect on engine or vehicle finish	No effect		--
Ash content, mass %	2.5 max.		D1119
pH, 50% V/V	7.5-11.0		D1287
Reserve alkalinity*	None specified	3 min.	D1121
Water mass %	None specified	49.0 max.	D1123
Color	Distinctive		--
Effect on nonmetals	No adverse effect		--
Storage stability	None specified	> 1 year	--
Foaming	150 mi vol., max. 5 sec. break, max.		D1881

*\*Reserve alkalinity (RA) is a term used to indicate the amount of alkaline inhibitors present in an antifreeze formulation. It is incorrect to relate a high RA with high-quality antifreeze. Many antifreeze formulations contain new inhibitors which give added protection to certain metals but do not raise the RA numbers.*

NOTE: Used antifreeze coolant in most states is not hazardous unless it contains more than 5 ppm of lead. We recommend that spent coolant never be disposed of by dumping into a storm sewer or onto the ground. Instead, contact your local municipality for instructions on where to and how to properly dispose of this coolant and protect our environment.

The purchaser hereby waives all guarantees and warranties and all other liabilities, expressed or implied, arising by law or liabilities therefore, expressed or implied, arising by law or otherwise, including without limitation, all obligations and liabilities with respect to loss of use, revenue or profit, or indirect or consequential damages, and any implied warranty of fitness for a particular purpose or of merchantability, or that any information, data or products can be used without infringing patents of third parties. Purchaser agrees to limit its warranty to its customers so as not to increase WEBA Technology's liability beyond that set forth herein and indemnifies and holds harmless WEBA Technology from any liability.

**PRODUCT  
SPECIFICATION**



**PLUMBING ANTIFREEZE  
CODE NT330**

**WHMIS CLASSIFICATION:** not regulated

Number of revisions: 1  
Date of last revision: January 30, 2010

**Technical Information:**

**Physical state :** Liquid **Appearance:** Red color

**Application:** Plumbing Antifreeze is specially formulated to protect water systems in boats, campers, cottages, RV and swimming pools up to -51°C. This product provides protection to all metal and plastic pipes commonly found in plumbing systems if used undiluted. Corrosion protection added.

**Easy to use, biodegradable, non toxic and not flammable**

The Hall-Chem Universal premium antifreeze contains propylene glycol and is specifically formulated to protect and prevent freezing of drains and fresh water lines. The product provides protection to all metal and plastic pipes commonly found in plumbing system if used undiluted.

**Directions to winterize:** 1. Turn off fresh water supply. 2. Completely drain water lines at all outlets thoroughly following manufacturer's directions. 3. Refill system to capacity with undiluted Hall-Chem plumbing antifreeze. 4. Repressurize water supply system. 5. Open all hot and cold faucets one at the time to see if system is full. Pink color confirms system is full.

To de-winterize: 1. Open all faucets and run fresh water through system until all color disappears. 2. Flush system several times until all color disappears. Fill fresh water supply tank.

**NOTE:** Do not use in gasoline or diesel engines

**Specifications:**

Typical properties	Test Method	Limit Values	Typical Values
Specific Gravity @60°F (15.56 °C)	D-4052	1.035-1.045	1.04
Protection		-51°C - -53°C	-51°C

**Packing:**

\*Plastic Containers 1100 l and Plastic Drums - 205 l \* Plastic Containers of 4 l,

These data are based on our current knowledge, experience and technical equipment. They do not relieve customers of carrying out their own tests and experiments, due to the great diversity of possible effects in processing and application of our products. They do not imply any legally binding assurances of certain properties and applications. The recipients of our products ought to abide by the existing legislation and regulations as well as possible reserved rights

**Hall-Chem Montreal**

1270 Nobel  
Boucherville, Québec , J4B 5H1  
Tel: 450-645-0296 Fax: 450-645-9565

**Hall-Chem Mississauga:**

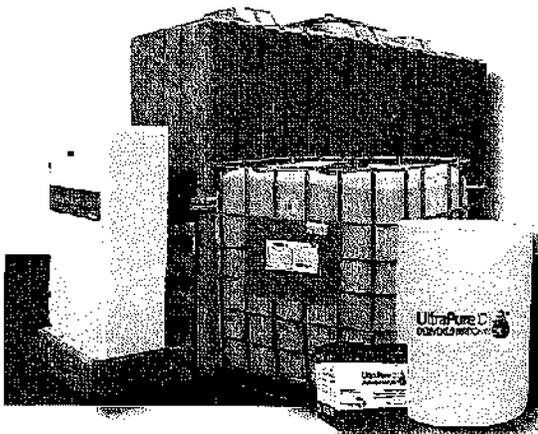
2155 Dunwin Drive Unit # 15  
Mississauga, Ontario, L5L 4M1  
Tel: 905-607-6800 Fax: 905-607-6888

## Typical Chemical & Physical Properties

32.5% Aqueous Urea Solution  
DeNOx Grade

**Description:** Urea Solution, AUS 32, is a manufactured product of technically pure urea mixed with demin water designed to meet the Specification of DIN 7007:2005 and ISO 22241-1:2006 for NOx abatement technologies.

Parameter	TYPICAL
Urea Concentration	32.5 +/- 0.7%
Specific Gravity at 20 Degrees C	1.087 - 1.093 kg/m3
Refractive Index at 20 Degrees C	1.3814 - 1.3843
Free Ammonia (alkalinity)	0.2% max
Biuret	0.3% max
Formaldehyde	Meets or Exceeds ISO 22241 Spec
Insoluble Matter	20 ppm max
Phosphates	0.5 ppm max
Calcium	0.5 ppm max
Iron	0.5 ppm max
Copper	0.2 ppm max
Zinc	0.2 ppm max
Chromium	0.2 ppm max
Nickel	0.2 ppm max
Aluminum	0.5 ppm max
Magnesium	0.5 ppm max
Sodium	0.5 ppm max
Potassium	0.5 ppm max



## Contact Us Today

for questions or to request more information about  
Diesel Exhaust Fluid (DEF).



# CHEVRON SOLUBLE OIL B

---

## PRODUCT DESCRIPTION

Chevron Soluble Oil B is used broadly in machine shops as a multifunctional cutting fluid. It is primarily formulated to cool and lubricate the contact point of the tool and the work piece.

## CUSTOMER BENEFITS

Chevron Soluble Oil B delivers value through:

- **Minimal separation** — Excellent emulsion even with hard water
- **Good rust protection** for steel work and machined parts even when water/oil emulsion ratios are 80:1
- **Cooling** maximized by metal wetting. In addition, promotes good chip settling.
- **Minimal foaming** — Possibility of sump overflow minimized
- **Good stability in storage** — Minimal tendency to turn rancid
- **Good ability to control bacterial growth and rancid odors**

## FEATURES

Chevron Soluble Oil B:

- helps prevent rusting or corrosion of the machined metals
- helps control the growth of bacteria — which is a constant problem in soluble oil circulating systems due to outside contamination
- minimizes surface foam
- speeds the release of entrained air which could cause pump cavitation

This is an extremely versatile fluid designed to meet many of the situations encountered in the metalworking industry.

Chevron Soluble Oil B is an emulsifying oil that readily mixes with water, forming a homogeneous and

exceptionally stable emulsion. It is used in the machining of both ferrous and nonferrous metals, particularly when cutting with carbon or high speed steel or tungsten carbide tools. It contains an effective biocide that combats bacterial growth, rancidity, and odor in machine sumps.

## APPLICATIONS

Chevron Soluble Oil B is recommended for metals (except magnesium) where maximum cooling is desired — particularly when cutting with carbon, high speed steel, or tungsten carbide tools.

Chevron Soluble Oil B is used extensively in milling, drilling, gear cutting, turning, planing, shaping, sawing, and grinding operations.

Chevron Soluble Oil B is typically diluted in water/oil ratios ranging from 10:1 to 50:1. See the Chevron Soluble Oil Mixing Recommendations chart for the proper water/oil ratio for each application.

Always add oil to water to avoid forming sticky invert emulsions that do not emulsify properly in water.

Chevron Soluble Oil B provides excellent in-process corrosion protection. Use of this product as a metal protective fluid for short-term rust protection is not recommended.

Do not recommend Chevron Soluble Oil B emulsions for operations involving magnesium. Hot magnesium is a fire hazard when it contacts water.

Emulsions of soluble metalworking fluids and water may become contaminated with harmful microorganisms such as bacteria and fungus, which can cause illness and infection. This can occur even in emulsions with fluids that initially contain some biocide because the biocide can be depleted during service. A metalworking fluid maintenance program should be followed in order to control this hazard. Such a program may require the use of biocides.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

12 May 2016  
MWF-40

© 2007-2015 Chevron U.S.A. Inc. All rights reserved.

Chevron and the Chevron Hallmark are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

**TYPICAL TEST DATA**

	<b>B</b>
<i>Product Number</i>	233703
<i>SDS Number</i>	7090
API Gravity	21.6
Viscosity, Kinematic cSt at 40°C cSt at 100°C	38.0 5.2
Viscosity, Saybolt SUS at 100°F SUS at 210°F	198 43.7
Flash Point, °C(°F)	160(320)
Pour Point, °C(°F)	-30(-22)
Total Sulfur, wt %	0.30
Active Sulfur, wt %	None
Volatile Organic Content (VOC), g/L ASTM E-1868-10	44

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

**MIXING RECOMMENDATIONS**

First figure indicates parts of water. Second figure indicates parts of Chevron Soluble Oil B.

<b>Material</b>	<b>Turning, Shaping, Planing, Drilling</b>	<b>Milling</b>	<b>Pipe and Plain Threading</b>	<b>Automatic Screw Machines</b>	<b>Grinding</b>	<b>Thread Grinding</b>	<b>Deep Drilling</b>	<b>Gear Shaving or Cutting</b>
Plain, medium, and high carbon steels	20:1	20:1	→	20:1	50:1	20:1	→	20:1
Alloy steels	15:1	15:1	→	15:1	50:1	15:1	→	15:1
Ingot iron, wrought iron, low carbon steels	15:1	15:1	→	15:1	50:1	15:1	→	15:1
Stainless steels, tool and die steels	10:1	10:1	→	10:1	50:1	10:1	→	10:1
Aluminum and aluminum alloys	25:1	25:1	30:1	30:1	50:1	30:1	20:1	30:1
Copper and brass	25:1	25:1	30:1	30:1	→	→	20:1	30:1
Zinc and zinc alloys	25:1	30:1	30:1	30:1	→	→	20:1	→
Bronze and high strength copper alloys	10:1	10:1	10:1	10:1	50:1	10:1	→	10:1
Magnesium and magnesium alloys	<b>FIRE HAZARD</b>							
Titanium and titanium alloys	10:1	10:1	→	→	→	→	→	→
Nickel and nickel alloys	10:1	10:1	→	10:1	50:1	10:1	→	10:1
Cast iron	Dry	Dry	Dry	→	Dry	Dry	Dry	Dry

→ Seldom used.

Emulsions of soluble metalworking fluids and water may become contaminated with harmful microorganisms such as bacteria and fungus, which can cause illness and infection. This can occur even in emulsions with fluids that initially contain some biocide because the biocide can be depleted during service. A metalworking fluid maintenance program should be followed in order to control this hazard. Such a program may require the use of biocides.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

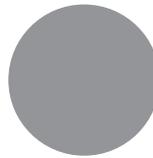
Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

12 May 2016  
MWF-40

# FM HYDRAULIC OIL Series

## Product Information

Hydraulic fluids for food and beverage processing equipment



**FM HYDRAULIC OIL 15, 32, 46, 68 and 100** are anti-wear multi-purpose lubricants, which are specially designed for use in the food and beverage processing and packaging industry.

They are based on a careful blend of base fluids and selected additives chosen for their ability to meet the stringent requirements of the food and beverage industry.

Registered by NSF (Class H1) for use where there is potential for incidental food contact. Produced according to FLT Quality Standards, in facilities where HACCP audit and Good Manufacturing Practice have been implemented and form part of the quality and hygiene management systems ISO 9001 and ISO 21469.

### CERTIFICATIONS AND SPECIFICATIONS

- NSF H1
- Kosher
- Halal
- DIN 51524 HLP
- ISO 6743-4 L-HM



## PERFORMANCE FEATURES

- The base fluid has been selected for its ability to provide good lubrication under variety of applications
- Good anti-wear and extreme pressure characteristics
- Good anti-oxidant properties
- Good air release and antifoam characteristics
- Good water separation characteristics
- Neutral odor and taste

## SEAL AND PAINT COMPATIBILITY

Compatible with the elastomers, gaskets, seals and paints normally used in food machinery lubrication systems.

## HANDLING AND STORAGE

All food grade lubricants should be stored separately from other lubricants, chemical substances and foodstuffs and out of direct sunlight or other heat sources. Store between 32°F and +100°F. Provided that the product has been stored under these conditions we recommend to use the product within 5 years from the date of manufacture. Upon opening a pack, the product must be used within 2 years (or within 5 years of date of manufacture, whichever is the sooner).

## APPLICATIONS

- Hydraulic systems
- Hydrostatic gears
- Plain and anti-friction bearings
- General purpose lubrication including light duty gearboxes
- Circulating oil systems

## TYPICAL CHARACTERISTICS (Typical for current production. Variations in these characteristics may occur.)

			FM HYDRAULIC OIL				
			15	32	46	68	100
Property		Test Method					
NSF Reg. No.			133338	133345	133347	133350	133351
Colour			Colorless				
Density at +15 °C	kg/m <sup>3</sup>	ASTM D 4052	852	859	866	869	872
Flash Point	°F/°C	ASTM D 92	400/204	425/218	425/218	425/218	425/218
Pourpoint (°C)	°F	ASTM D 97	-10 (-23)	-6 (-21)	0 (-18)	0 (-18)	0 (-18)
Kin. Visc.(base oil) at +40°C	mm <sup>2</sup> /s	ASTM D 445	15	32	46	68	100
Kin. Visc. (base oil) at +100°C	mm <sup>2</sup> /s	ASTM D 445	3.3	6	7.1	9	11.6
Viscosity Index		ASTM D 2270	95	105	105	105	100
Water Separability		ASTM D 1401		40-40-0 (10)	40-10-0 (10)	40-40-0 (10)	40-40-0 (10)



FUCHS LUBRITECH  
 A division of Fuchs Lubricants Co.  
 17050 Lathrop Ave.  
 Harvey, IL 60426  
 Tel. 708-333-8900  
 email: [cassida.lubricants@fuchs.com](mailto:cassida.lubricants@fuchs.com)  
[www.fuchs.com](http://www.fuchs.com)

As far as we know these information reflect the current state of knowledge and our research. They cannot, however, be taken as an assurance about the properties nor as a guarantee of the suitability of the product for the individual case in point. Before using our products the purchaser must, therefore, check the suitability and be satisfied that the output will be satisfactory. Our products are continually being up-dated. We reserve the right, therefore, to alter the information of this product information at any time and without prior announcement. We are specialized in developing products for extreme tribological problems in cooperation with end users. FUCHS LUBRITECH provides service and individual advice. Please contact us! E-Mail: [cassida.lubricants@fuchs.com](mailto:cassida.lubricants@fuchs.com)



# GST<sup>®</sup> OIL

## 32, 46, 68, 100 & ISOCLEAN<sup>®</sup> Certified

### PRODUCT DESCRIPTION

GST<sup>®</sup> Oils are formulated with premium base oil technology designed to meet the critical demands of:



- non-gearred gas, steam, and hydroelectric turbine bearing lubrication
- reduction gear lubrication in marine operations

They are an excellent recommendation for many other industrial applications including air compression where R&O type oils are recommended. GST Oils are available as ISOCLEAN<sup>®</sup> Certified Lubricants, which have been certified to meet specified ISO Cleanliness standards at point of delivery using industry leading filtration and testing technology. ISOCLEAN Certified products are the first step for contamination control and maximizing component life.

### CUSTOMER BENEFITS

GST Oils deliver value through:

- **Exceptional oxidation stability** for long service life at elevated temperatures. Formulated with premium base oil technology and an ashless, zinc-free formulation.
- **Rust and corrosion protection**
- **High viscosity index** helps ensure minimum viscosity change when variations in temperature occur.
- **Minimum foam** helps prevent sump overflow or erratic governor operation.
- **Fast air release** minimizes possibility of pump cavitation in systems with high circulation rates and small reservoirs.
- **Exceptional thermal stability** minimizes deposit formation.

- **Rapid water separation** keeps water in oil to a minimum.
- **Hydraulic fluid service** — GST Oils 32, 46 and 68 are excellent hydraulic fluids in low pressure systems up to 1000 psi.
- **Air compressor** lubricant when OEM recommends R&O type oil.

### CUSTOMER BENEFITS ISOCLEAN CERTIFIED

GST Oil ISOCLEAN Certified Lubricants deliver value through:

- **Ready to use** — Enables users to meet stringent original equipment manufacturers' cleanliness standards for fill lubricants.
- **Flexibility** — ISO Cleanliness targets can be customized to fit your business application needs.
- **Peace of mind** — Each delivery of Chevron ISOCLEAN Certified Lubricant includes an ISOCLEAN Certificate of Analysis.
- **OE fluid cleanliness requirements** — Customized to meet specific equipment manufacturers' fluid cleanliness requirements.

### FEATURES

GST Oils are formulated with premium base oil technology and an ashless, zinc-free formulation that provides exceptional oxidation stability, water separability, and protection against rust and corrosion.



Higher temperatures in advanced gas and steam turbines require circulating system oil with exceptional high temperature stability. GST Oils have outstanding **thermal and oxidation stability**.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

1 July 2016  
IO-85

© 2007-2016 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark, GST and ISOCLEAN are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

Nonvolatile **oxidation inhibition** minimizes the evaporative loss of the inhibitors, a common problem with turbine oils where bearing temperatures are high and system capacities are limited. With retained oxidation resistance for long periods under high temperature conditions, GST® Oils will promote long oil service life and help minimize turbine down time.

**Corrosion inhibition** protects costly turbine shafts and gears from corrosion and rusting.

GST Oils have excellent demulsibility characteristics which allow these oils to maintain a high film strength coating on critical wear points of bearings and gear reducers and assure fast removal of water contamination.

**Foam inhibition** helps prevent sump overflow and erratic governor operation.

## APPLICATIONS

GST Oils are formulated to meet the critical demands of non-geared gas, steam, and hydroelectric turbine bearing lubrication, and reduction gear lubrication in marine operations. They are an excellent recommendation for many other industrial applications including air compression where R&O type oils are recommended.

The following viscosity grades are formulated to meet the specified OEM requirements:

### GST Oil 32

- meets and exceeds
  - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
  - **General Electric** GEK-32568j, GEK 28143A, GEK-46506D, GEK-27070
  - **Solar** ES 9 224 requirements for gas turbine oils
- meet
  - **MAG Cincinnati, Cincinnati Machine** P-38
- is approved by
  - **Alstom Power** HTGD 90117 (for non-geared turbines)
  - **Siemens** TLV 901305
  - **Siemens Westinghouse** M spec 55125Z3

### GST Oil 46

- meets
  - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
  - **MAG Cincinnati, Cincinnati Machine** P-55
  - **Solar** ES 9 224 requirements for gas turbine oils
- is approved by
  - **Alstom Power** HTGD 90117 (for non-geared turbines)
  - **Siemens** TLV 901305
- successfully used in some reactor coolant pump motor bearings.

### GST Oil 68

- meets
  - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
  - **MAG Cincinnati, Cincinnati Machine** P-54
- suitable for use in hydroelectric turbines, land and marine steam turbines, and associated reduction gears when OEM recommends R&O type oil.

### GST Oil 100

- meets
  - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
- suitable for use in hydroelectric turbines, land and marine steam turbines, and associated reduction gears when OEM recommends R&O type oil.

GST Oil 32, 46, 68, 100 and ISOCLEAN® Certified 32, 46, 68, 100 are registered by **NSF** and are acceptable as lubricants where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

Do not use in breathing air apparatus or medical equipment.

Consult with your Chevron Lubricant Representative or Chevron ISOCLEAN® Certified Lubricants Marketer to set specific ISO Cleanliness targets for your business application.

## TYPICAL TEST DATA

ISO Grade	32	46	68	100
<i>Product Number</i>	253026	253027	253028	253029
<i>Product Number ISOCLEAN Certified</i>	254606	254607	254608	278069
<i>SDS Number</i>	6710	6710	6710	6710
AGMA Grade	—	1	2	3
API Gravity	32.7	32.0	31.7	31.4
Viscosity, Kinematic cSt at 40°C cSt at 100°C	32.0 5.4	43.7 6.6	68.0 8.8	100.0 11.4
Viscosity, Saybolt SUS at 100°F SUS at 210°F	165 44.4	225 48.2	352 55.9	520 65.4
Viscosity Index	102	101	102	100
Flash Point, °C(°F)	222(432)	224(435)	245(473)	262(504)
Pour Point, °C(°F)	-36(-33)	-36(-33)	-33(-27)	-30(-22)
Oxidation Stability ASTM D943 <sup>a</sup> ASTM D2272 <sup>b</sup>	17,000 1700	12,000 1400	11,000 1400	11,000 1400

a Hours to 2.0 mg KOH/g acid number modified D943, allowed to run beyond 10,000 h.

b Minutes to 25 psi pressure drop.

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.



# MEROPA®

## 68, 100, 150, 220, 320, 460, 680, 1000, 1500

### PRODUCT DESCRIPTION

Meropa® gear lubricants are premium quality extreme pressure gear oils with excellent load carrying capacity, water demulsibility, oxidation stability, and corrosion protection.

### CUSTOMER BENEFITS

Meropa gear lubricants deliver value through:

- **Gear set efficiencies** — High thermal stability EP system helps maintain clean gear and bearing surfaces, minimizing deposits which interfere with effective lubrication. High oxidation stability limits in-service viscosity increases, which can lead to energy losses.
- **Long equipment life** — Effective EP system forms a protective film in areas of metal-to-metal contact, minimizing wear rates and maintaining efficient transfer of power. Good water separation and effective rust inhibitors protect surfaces against rust and corrosion. High thermal stability additive system minimizes the formation of high temperature compounds which can be corrosive to bearing materials. The effective corrosion inhibitor provides additional protection for metal components.
- **Long oil life** — Effective oxidation inhibitors and copper passivator minimize oil oxidation, limiting viscosity increase and promoting long drain intervals.

### FEATURES

Meropa gear lubricants are high performance, multipurpose gear lubricants designed for many types of industrial gear lubrication services where loads and shock loadings are high.



### APPLICATIONS

Meropa gear lubricants are recommended for:

- industrial enclosed gearing where an AGMA extreme pressure lubricant is specified
- bath, splash, circulating, or spray mist lubrication as applicable to the proper viscosity grade
- general industrial plant lubrication where the performance properties of an AGMA extreme pressure lubricant is required

Meropa gear lubricants meet the requirements of:

- **AGMA EP 9005-E02** (ISO 68, 100, 150, 220, 320, 460, 680, 1000, 1500)
- **DIN 51517-3** (CLP)
- **MAG Cincinnati, Cincinnati Machine P-63** (ISO 68), P-76 (ISO 100), P-77 (ISO 150), P-74 (ISO 220), P-59 (ISO 320), P-35 (ISO 460), P-78 (ISO 1000)
- **U.S. Steel 224 Specification** (ISO 220, 320, 460, 680)

Meropa gear lubricants (ISO 68, 100, 150, 220, 320, 460) are suitable for use in **Bijur** oil application equipment.

Meropa gear lubricants have a typical sulfur-phosphorus odor characteristic of industrial gear oils. A ventilated environment is recommended during use.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

1 July 2016  
GL-37

© 2008-2016 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Meropa are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

**TYPICAL TEST DATA**

<b>ISO Grade</b>	<b>68</b>	<b>100</b>	<b>150</b>	<b>220</b>	<b>320</b>	<b>460</b>	<b>680</b>
<i>Product Number</i>	277209	277219	277210	277211	277212	277213	277214
<i>SDS Number</i>	23551	23551	23551	23551	23551	23551	23551
<b>AGMA Grade</b>	2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	8 EP
<b>API Gravity</b>	31.0	30.6	29.7	28.4	27.3	26.3	26.0
<b>Viscosity, Kinematic</b> cSt at 40°C cSt at 100°C	64.6 8.6	95.0 11.0	142 14.4	209 18.8	304 23.2	437 29.4	646 39.8
<b>Viscosity, Saybolt</b> SUS at 100°F SUS at 210°F	334 55	495 64	744 77	1102 96	1618 116	2341 144	3467 194
<b>Viscosity Index</b>	104	100	100	100	95	95	100
<b>Flash Point, °C(°F)</b>	225(437)	225(437)	240(464)	245(473)	245(473)	245(473)	260(500)
<b>Pour Point, °C(°F)</b>	-33(-27)	-30(-22)	-30(-22)	-21(-5)	-18(0)	-15(+5)	-12(+10)
<b>Timken OK Load, lb</b>	65	65	65	65	65	65	65
<b>FZG Pass Stage, ASTM D5182</b>	12	12	12	12	12	12	>12

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

1 July 2016  
GL-37

**TYPICAL TEST DATA**

<b>ISO Grade</b>	<b>1000</b>	<b>1500</b>
<i>Product Number</i>	277215	277216
<i>SDS Number</i>	23551	23551
AGMA Grade	8A EP	9 EP
API Gravity	25.9	25.7
Viscosity, Kinematic cSt at 40°C cSt at 100°C	950 53.9	1425 74.0
Viscosity, Saybolt SUS at 100°F SUS at 210°F	5115 262	7699 359
Viscosity Index	107	114
Flash Point, °C(°F)	260(500)	260(500)
Pour Point, °C(°F)	-12(+10)	-12(+10)
Timken OK Load, lb	65	65
FZG Pass Stage, ASTM D5182	>12	>12

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

1 July 2016  
GL-37

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

1 July 2016  
GL-37



PROFESSIONAL  
HEAVY DUTY

ANTIFREEZE/  
COOLANT

LOW SILICATE • PHOSPHATE FREE • FULLY FORMULATED

CLASSIC  
CONVENTIONAL DIESEL

## CLASSIC FORMULATION. EXCELLENT VALUE.

Featuring HD Expert's legacy technology, Classic is a traditional coolant ideally suited for older vehicles.

### FORMULATION FEATURES & BENEFITS:

**Wide Application:** The low silicate level of this aluminum compatible product allows it to be used in automotive, light duty, heavy duty diesel and natural gas engine (NGE) applications such as on-road truck, off-road and farm equipment. This includes, but is not limited to, Caterpillar, Cummins, Detroit Diesel, Ford, Freightliner, GM, International Truck and Engine, Kenworth, Paccar, Peterbilt, Volvo Mack, Western Star and other HD and industrial application where a conventional HD coolant is required.

**Proven Protection:** Classic Conventional Diesel is based on traditional inorganic inhibitors, including silicates, nitrites and borates. It is phosphate and amine free, specifically formulated to protect wet sleeve cylinder liners from erosion, pitting and system metal corrosion in heavy duty applications. Scale preventative additives counter the negative effects of hard water to ensure optimal heat transfer is maintained.

**Field Compatibility:** It is miscible and compatible with any other traditional fully formulated, conventional coolant products, standard heavy duty SCAs and coolant filters. Recommended for use where a fully formulated heavy duty diesel coolant is required, this pre-charged product does not require an initial charge of Supplemental Coolant Additives (SCA) and is hard water tolerant.

**All Climate Performance:** Provides protection against low temperature freeze-up or high temperature boil-over and suitable for all season use throughout winter and summer. When used as 50% diluted with high quality water, provides freeze protection down to  $-37^{\circ}\text{C}/-34^{\circ}\text{F}$  and boil-over protection up to  $+132^{\circ}\text{C}/+269^{\circ}\text{F}$  (with the use of a 100 kPa pressure cap). Available in Concentrate and 50-50 Pre-diluted formats.



# PROFESSIONAL HEAVY DUTY ANTIFREEZE/COOLANT

**CLASSIC Conventional Diesel** protects heavy duty diesel wet sleeve liners and is based on a proprietary formulation of corrosion inhibitors. A traditional coolant ideally suited for older vehicles, Classic is recommended for use where a fully formulated heavy duty diesel coolant is required. This includes, but is not limited to, Caterpillar, Cummins, Detroit Diesel, Ford, Freightliner, GM, International Truck and Engine, Kenworth, Paccar, Peterbilt, Volvo Mack and Western Star.

## Approvals & Specifications

Meets or exceeds performance requirements of:	Recommended and suitable for use with:		
<ul style="list-style-type: none"> <li>• <b>ASTM D3306, D4985, D6210</b></li> <li>• <b>AS/NZS 2108.2004 Type A</b></li> <li>• <b>Caterpillar (other than EC-1)</b></li> <li>• <b>Cummins 3666132</b></li> <li>• <b>DDC 7SE 298, 93K217</b></li> <li>• <b>GB 29743-2013</b></li> <li>• <b>GM 1825M, 1899M</b></li> <li>• <b>TMC RP329B</b></li> </ul>	<ul style="list-style-type: none"> <li>• Ford ESE-M97B44-A, ESE-M97B44-C</li> <li>• GM Heavy Truck</li> <li>• International Truck and Engine CEMS B-1</li> <li>• Kenworth RO26-170-97</li> </ul>	<ul style="list-style-type: none"> <li>• Mack 014GS17004</li> <li>• New Holland WSN-M97B18-D</li> <li>• PACCAR</li> </ul>	<ul style="list-style-type: none"> <li>• Peterbilt 8502.002</li> <li>• Volvo Heavy Truck</li> <li>• US Fed A-A870-A</li> </ul>

## Typical Physical and Chemical Characteristics

CHARACTERISTIC	PERFORMANCE		TEST METHOD
	CONCENTRATE	50/50 PREMIX	
Appearance	Clear and transparent fluid	Clear and transparent fluid	
Colour	Purple	Purple	
pH	10.0 – 11.0	10.0 – 11.0	ASTM D1287
Reserve Alkalinity, ml	10.0 min.	5.0 min.	ASTM D1121
Specific gravity	1.110 – 1.140	1.070 - 1.090	ASTM D1122
Freeze point, °C/°F	60/40: -52/-61 70/30: -64/-83	-37/-34	ASTM D1177
Foam volume, ml	50 max.	50 max.	ASTM D1881
Foam break time, second	5 max.	5 max.	ASTM D1881
Chloride, ppm	< 25	< 25	ASTM D3634
Silicon	< 500	< 250	ASTM D6130
Phosphate	< 10	< 10	ASTM D5827
Nitrite	1500 min.	780 min.	ASTM D5827
Shelf Life, (Unopened, original container)	2 years	2 years	

These characteristics are typical of current production. While future production will conform to Recochem's specification, variations in these characteristics may occur.



# PROFESSIONAL HEAVY DUTY ANTIFREEZE/COOLANT

## Dilution Chart

Protection against Freezing (°C/°F)	-37 / -34	-52 / -61	-64 / -83
Volume % Antifreeze	50	60	70
Volume % Deionized Water	50	40	30
**Protection against Boil-Over (°C/°F)	129 / 264	132 / 269	136 / 276

\*\*\*with a 100 kilopascals (15 psi) radiator cap in good condition

Coolant concentrate must be diluted with water prior to use. Antifreeze/Coolant should not be used in concentrated form. A 50% dilution is generally recommended for the best balance of protection against freezing, corrosion and summer boil-over. For increased freeze protection in extremely cold areas, a 60% volume concentration can be used. Concentrations of greater than 70% by volume are not recommended. High quality soft, de-ionized or distilled water should always be used to dilute coolant concentrate.

## Typical Coolant Performance Testing Results

METAL TYPE	ASTM D 1384 GLASSWARE CORROSION		ASTM D 2570 SIMULATED SERVICE	
	Test Results <sup>1</sup>	Max. Spec.	Test Results <sup>1</sup>	Max. Spec.
Copper	1	10	-1	20
Solder	4	30	14	60
Brass	1	10	2	20
Steel	1	10	0	20
Cast Iron	-5	10	-6	20
Aluminum	-2	30	1	60

<sup>1</sup> Weight loss, except minus signs which indicate weight gain, per coupon in milligrams. Values are for coolant made from virgin ethylene glycol.

## Typical Coolant Performance Testing Results (continued)

	Test Results <sup>1</sup>	Specification
ASTM D4340 Heat Rejecting Aluminum Corrosion (mg/cm <sup>2</sup> /week)	0.2	1.0 maximum
ASTM D2809 Aluminum Water Pump Cavitation - Erosion Corrosion Rating	8	8 minimum

<sup>1</sup> Weight loss per coupon in milligrams (average for 2 tests). Values are for coolant made from virgin ethylene glycol.



# PROFESSIONAL HEAVY DUTY ANTIFREEZE/COOLANT

## Product Packaging Specifications

### CANADA

Item No.	Formulation	Container Size	Case Pack	UPC	SCC
16-284	Concentrate	3.78 L	4	0-56438-16284-1	400-56438-16284-9
16-474	50-50 premixed	3.78 L	4	0-56438-16474-6	400-56438-16474-4
16-285	Concentrate	9.46 L	2	0-56438-16285-8	500-56438-16285-3
16-475	50-50 premixed	9.46 L	2	0-56438-16475-3	500-56438-16475-8

### USA

Item No.	Formulation	Container Size	Case Pack	UPC	SCC
86-284	Concentrate	1 gal	4	0-56438-86284-0	400-56438-86284-8
86-474	50-50 pre-diluted	1 gal	4	0-56438-86474-5	400-56438-86474-3

### DRUM/TOTE

Item No.	Formulation	Container Size	Case Pack	UPC	SCC
26-289	Concentrate	208 L / 55 gal	NA	0-56438-26289-3	NA
26-479	50-50 premixed	208 L / 55 gal	NA	0-56438-26479-8	NA
26-289-1000	Concentrate	1000 L / 264 gal	NA	0-56438-90787-9	NA
26-479-1000	50-50 premixed	1000 L / 264 gal	NA	0-56438-90788-6	NA

### Warranty

When added as an initial fill and properly maintained in accordance with engine manufacturer's maintenance recommendation, this product will provide an in-service life of up to 250,000 miles/ 400,000 km, or 2 years, whichever comes first. While deleterious effects are not expected to be significant, mixing with conventional coolants will result in a lower than expected lifetime.

### Handling, Storage & Shelf Life

Product should be stored in original container or appropriate dedicated tank or vessel. Although temperature fluctuations will not adversely affect coolant, unused coolant should be stored at ambient conditions. Under typical conditions and when the container integrity is maintained, product can be stored for up to 2 years without any adverse effect on quality. Product should be agitated before use.

### Health, Safety & Environment

For detailed information and recommended practices related to Health and Safety, please refer to the appropriate Safety Data Sheet (SDS). New or spent coolant is never to be disposed of into a septic system, storm sewer or onto the ground. Always dispose coolant in accordance with local, provincial/ state and federal guidelines. Contain any spilled coolant and contact appropriate authorities on appropriate clean-up instructions.

**NOTICE:** This product is shipped in compliance with applicable laws and regulations regarding classification, packaging, shipping and handling. The performance and physical property data described for this product are typical results not sale specifications, except where maximum or minimum is indicated. Refer to Safety Data Sheets for further information.

Because use conditions and applicable laws may differ from one location to another and may change with time, the customer is responsible for determining whether product and the information in this document are appropriate for their use and for ensuring that their workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Recochem's warranty is limited to the claims of product meeting stated performance specifications. It is the responsibility of the end-user to determine product suitability as recommended in the owner's manual and to follow engine manufacturer's instructions.



# PLUMBING ANTIFREEZE

## ECONO

BURST  
PROTECTION

# -50°C\*

- Burst Protection -50°C\*
- For Winterizing PLASTIC Piping systems
- Salt-free\*\*
- Non-toxic
- Ready to use



- Item Number: **15-334**
- Unit/Case Pack: 3.78 L /4
- UPC: 0-56438-15334-4
- SCC: 400-56438-15334-2

## Safe for Plumbing Systems in:



Swimming  
Pools



RV's



Boats



Seasonal  
Homes





# PLUMBING ANTIFREEZE **ECONO**

BURST PROTECTION **-50°C\***

Econo Plumbing Antifreeze prevents damage to drains and freshwater lines caused by freezing water in mobile homes, recreational vehicles, boats, seasonal homes, septic systems and swimming pool filtration and heating systems.

\*Freezing of the product is normal and will not damage equipment.

**THIS PRODUCT IS NOT DESIGNED AS A HEAT TRANSFER FLUID FOR CLOSED LOOP SYSTEMS OR AS ANTIFREEZE FOR INTERNAL COMBUSTION ENGINES.**

**WARNING: DO NOT DILUTE.** Any water remaining in the lines and drains will cause the product to expand and damage water lines. Bring product to room temperature before using.

#### DIRECTIONS:

1. Drain water system **COMPLETELY**.
2. Pour product into freshwater lines through the pressurization system or by removing faucet stems. For recreational vehicles, see your owner's manual for further details.
3. Add antifreeze until colour is evident at drain points. Make sure all branch pipes are treated.
4. For a seasonal home, also add 1L (35.2 fl oz) to each toilet bowl and toilet tank and 250 mL (8.8 fl oz) to all sink and tub traps. For fresh water systems piping must be thoroughly flushed before returning to service.

\*\*Salt solutions known as brines are extremely corrosive to metals and cannot be rendered non-corrosive.





# CHEVRON LUBRICATING OIL FM

## 32, 46, 68, 100, 220, 460

---

### PRODUCT DESCRIPTION

Chevron Lubricating Oils FM are premium performance multipurpose food grade lubricants formulated for use in the food processing and other sensitive industries where incidental food contact may occur.

### CUSTOMER BENEFITS

Chevron Lubricating Oils FM deliver value through:

- **Oxidation inhibition** — High oxidation stability protects against oil thickening and sludge formation.
- **Variety of non-food applications** — Helps minimize inventory.
- **Container selection** — Packaged in new returnable 55 gallon drums, 5 gallon pails, and 330 gallon disposable containers.
- **Odorless and tasteless** — Product will not be adulterated if incidental food contact should occur.
- **Excellent antiwear protection, long oil service intervals, and rust protection**
- **Suitable for conventional oil collection/recycling programs**

### FEATURES

They contain a special preservative to protect against the introduction of molds when the product is put into service.

Provides performance above that found in typical white mineral oils often used in the food industry.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

27 April 2015  
FPL-20

© 2008-2015 Chevron U.S.A. Inc. All rights reserved.

Chevron and the Chevron Hallmark are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

## APPLICATIONS

ISO	Description	Properties							Recommended for
		Lubricity Enhancer	Antiwear	Rust protection	Corrosion protection	Water separability	Foam control	Oxidation stability	
32 46 68	Hydraulic oils, general purpose lubricants		✓	✓	✓	✓	✓	✓	High pressure hydraulic systems, air compressors, airline lubricators, and the lubrication of bearings and lightly loaded gears
100 (* )	Circulating oil and general purpose lubricant		✓	✓	✓		✓	✓	Circulating oil systems, airline lubricators, and bearing lubrication
220	Gear oil and general purpose lubricant		✓	✓	✓	✓	✓	✓	Enclosed gear sets, reduction gears, and gear drives which are sensitively located in a food processing operation. It can also be used in hydraulic or circulating systems that require a higher viscosity lubricant.
460 (* )	Gear oil and general purpose lubricant, a "compounded" gear oil	✓	✓	✓	✓		✓	✓	Gear sets, rotary steamers, and valves up to 175°C (350°F)

(\* ) ISO 100 and ISO 460 grades emulsify with water.

### Chevron Lubricating Oils FM

- conform to **U.S. Food and Drug Administration (FDA)** requirements of lubricants with incidental food contact, 21 CFR 178.3570. Lubricants with incidental food contact should not contaminate food at levels greater than 10 ppm.
- are registered by **NSF** and are acceptable as a lubricant where incidental food contact may occur (H1) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.
- are certified **Kosher** and **Pareve**.
- are identified on the **Canadian Food Inspection Agency** Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products. This registration requirement was repealed by CFIA on July 2, 2014.

Chevron Lubricating Oils FM meet these stringent standards of purity while performing exceptionally well in high pressure hydraulic applications, plant air tool lubrication (FRL units), high temperature gears, and gearhead motors.

Chevron Lubricating Oil FM 100 is approved by:

- Racine Fluid Power** for use in their vane-type high pressure pumps

Do not use Chevron Lubricating Oils FM 32, 46, or 68 in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

## TYPICAL TEST DATA

ISO Grade	32	46	68	100	220	460
Product Number	232103	255150	255110	232105	255106	232106
SDS Number	6850	6850	6850	6859	6859	6859
AGMA Grade	—	1	2	3	5	7 Compounded
API Gravity	33.4	32.8	32.2	31.5	30.7	29.2
Viscosity, Kinematic cSt at 40°C cSt at 100°C	30.4 5.2	41.4 6.4	64.6 8.5	95.0 11.3	209 20.2	437 34.7
Viscosity, Saybolt SUS at 100°F SUS at 210°F	157 44	213 48	334 55	494 65	1096 102	2308 169
Viscosity Index	100	101	102	105	112	118
Flash Point, °C(°F)	220(428)	234(453)	254(489)	260(500)	260(500)	243(469)
Pour Point, °C(°F)	-9(+16)	-9(+16)	-9(+16)	-9(+16)	-9(+16)	-9(+16)
Rust Test Distilled water, ASTM D665A	Pass	Pass	Pass	Pass	Pass	Pass
Four-Ball Wear Scar Diameter, mm	0.45	0.43	0.42	0.44	0.43	0.43
Vickers V104C Pump Test Total Wear, mg	16.7	—	16.5	19.2	—	—
Oxidation Stability, Hours to 2.0 mg KOH/g acid number, ASTM D943*	>15,000	>15,000	>15,000	>15,000	>15,000	—

\* Modified ASTM D943, allowed to run beyond 10,000 h.

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.



# RANDO<sup>®</sup> HD

## 10, 22, 32, 46, 68, 100, 150, 220, 320

---

### PRODUCT DESCRIPTION

Rando<sup>®</sup> HD oils are formulated with premium base oil technology and designed to give robust protection to hydraulic pumps in mobile and stationary systems.

### CUSTOMER BENEFITS

Rando HD oils deliver value through:

- **Long equipment life** — Special antiwear additive package minimizes wear by protecting surfaces when load causes breakdown of the lubricant film.
- **Minimized downtime** — Effective rust and oxidation inhibitor system helps prevent the production of abrasive particles from rust formation, and deposits, varnishes and sludges from oil breakdown, which can damage equipment surfaces and seals, and block filters prematurely.
- **Smooth operation** — Good hydrolytic stability and water separation characteristics promote excellent filterability in the presence of water contamination. Good anti-foam and air release help ensure smooth operation and system efficiency.
- **Optimal oil service life** — High oxidation stability resists oil thickening and deposit formation in service, minimizing the possibility of an unscheduled change of hydraulic fluid.

### FEATURES

Rando HD **ISO 32, 46, and 68** are formulated with Group II base stocks.

Rando HD **ISO 100, 150, 220, and 320** are designed for lubricant applications requiring an AGMA R&O gear oil lubricant in the applicable viscosity grade.

Rando HD oils provide excellent:

- antiwear protection
- oxidation and corrosion inhibition
- foam and aeration suppression

Under moderate loads and temperatures, the high viscosity index of Rando HD oils help ensure good film strength between metal surfaces and is further enhanced by antiwear additive protection.

### APPLICATIONS

Rando HD **ISO 10 and 22** can be used as spindle lubricants where zinc-free oils are not a requirement.

Rando HD **ISO 32, 46, or 68** are recommended for:

- vane-, piston-, or gear-type pumps, especially where pressures exceed 1000 psi
- lightly loaded reciprocating compressors

Rando HD **ISO 100, 150, 220, or 320** are recommended for applications where AGMA rust and oxidation inhibited oils are required:

- hydraulic equipment reduction gears where EP is not required
- plain and antifriction bearings
- circulating oil systems

Rando HD oils are approved for:

- **Eaton-Vickers** 35VQ25A pump, M-2950-S (Mobile) and I-286-S (Stationary) (ISO 32, 46, 68)
- **Parker Hannifin (Denison)** HFO, HF1, HF2, T6H2OC (ISO 32, 46, 68)

Product(s) manufactured in the USA, Colombia and El Salvador.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

29 September 2014  
IO-170

© 2008-2014 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Rando are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

Rando® HD oils meet the requirements of:

- **AFNOR** NF E 48-603 HM (ISO 32, 46, 68)
- **ANSI/AGMA** 9005-EO2, *Industrial Gear Lubrication*, for gear lubrication as rust and oxidation inhibited gear oils (ISO 46, 68, 100, 150, 220)
- **ASTM** D6158 HM (ISO 32, 46, 68, 100, 150)
- **Bosch Rexroth** former specification RE 90220-01 (ISO 32, 46, 68)
- **DIN** 51524-2 (ISO 32, 46, 68)
- **General Motors** LS2 Specification, LH for anti-wear hydraulic fluids (ISO 32, 46, 68)
- **ISO** 11158 L-HM
- **Joy** HO-S (ISO 68)
- **MAG Cincinnati, Cincinnati Machine** P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO 68)
- **US Steel** 126, 127 (ISO 32, 46, 68)

Rando HD **ISO 32, 46, 68, 100, 150, 220, and 320** are registered by **NSF** and are acceptable as lubricants where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Do not use in breathing air apparatus or medical equipment.

## TYPICAL TEST DATA

ISO Grade	10	22	32	46	68
Product Number	273252	273276	273277	273278	273279
SDS/MSDS Number					
USA	23706	23548	23556	23556	23556
Colombia	—	—	33476	33476	33476
El Salvador	—	—	33477	33477	33477
AGMA Grade	—	—	—	1	2
API Gravity	27.7	33.7	32.6	31.8	31.6
Viscosity, Kinematic					
cSt at 40°C	10.3	23.1	30.4	43.7	64.6
cSt at 100°C	2.5	4.4	5.2	6.5	8.4
Viscosity, Saybolt					
SUS at 100°F	63	120	157	225	334
SUS at 210°F	35	41	44	48	54
Viscosity Index	48	98	99	97	98
Flash Point, °C(°F)	154(309)	177(351)	220(428)	226(439)	235(455)
Pour Point, °C(°F)	-39(-38)	-36(-33)	-33(-27)	-30(-22)	-30(-22)
Oxidation Stability					
Hours to 2.0 mg KOH/g acid number, ASTM D943	—	—	>5000	>5000	>5000

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

## TYPICAL TEST DATA

ISO Grade	100	150	220	320
<i>Product Number</i>	273228	273280	273281	277316
<i>SDS/MSDS Number</i>				
<i>USA</i>	23550	23550	23550	23550
<i>Colombia</i>	33474	33474	—	—
<i>El Salvador</i>	33475	33475	—	—
AGMA Grade	3	4	5	6
API Gravity	30.1	29.7	28.5	27.4
Viscosity, Kinematic				
cSt at 40°C	95.0	143	209	304
cSt at 100°C	11.0	14.2	18.2	23.4
Viscosity, Saybolt				
SUS at 100°F	495	751	1105	1617
SUS at 210°F	64	76	93	117
Viscosity Index	100	97	96	96
Flash Point, °C(°F)	250(482)	260(500)	271(520)	277(531)
Pour Point, °C(°F)	-15(+5)	-12(+10)	-12(+10)	-12(+10)
Oxidation Stability				
Hours to 2.0 mg KOH/g acid number, ASTM D943	>2000	>1500	>1000	>1000

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

29 September 2014  
IO-170



## PRODUCT INFORMATION

### TRANSIT UNIVERSAL SYNTHETIC LV DEXRON VI ATF

TRANSIT Uni-Syn LV Dexron VI ATF is a specifically designed, fully synthetic, next generation licensed fluid for use in General Motors vehicles where Dexron VI is specified, as well as most other ATF applications (check your viscosity requirements). Formulated for use in low viscosity ATF applications (Mercon LV, SP; Toyota WS, etc.) and designed for the latest six and seven speed automatic transmissions. TRANSIT Uni-Syn LV Dexron VI ATF is also completely backward compatible for use in older GM vehicles that specify Dexron III H, Dexron IIIG, Dexron IID, Dexron II or Dexron fluids. This fluid has shown outstanding performance in friction durability, shear and oxidation stability and provides longer service life with superior foam resistance, minimization of deposits and consistent shift performance. This fluid is approved by General Motors under license number J-60155.

#### PRODUCT CODE 516

Property	ASTM	Typical value
Density, @ 15°C	D4052	.844
Color	Red	
Flash Point, COC °C	D92	191
Viscosity, Cst @ 40°C	D445	29.8
Viscosity, Cst @ 100°C	D445	5.98
Viscosity Index	D2270	152
Viscosity, cP @ -40°C	D2983M	11,500
Pour Point, °C	D97	-50
Phosphorous, %wt.	PCM438	.0194



## PRODUCT INFORMATION

Transit Uni-Syn LV Dexron VI ATF Application Chart

<i>Specification</i>	<i>Uni-Syn LV Dexron VI ATF Code 516</i>
Aisin Warner AW-1	X
Allison C-4	X
Allison TES-295**	X
Audi G-052-025-A2	X
Audi G-052-161-A1	X
Audi G-052-162-A1	X
Audi G-055-025-A2	X
BMW 5HP24	X
BMW 5HP30	X
BMW 7045E	X
BMW LA2634	X
BMW LT71141	X
BMW ZF 5HP18FL	X
Caterpillar TO-2	X
Chrysler ATF + <sup>o</sup>	X
Chrysler ATF +2 <sup>o</sup>	X
Chrysler ATF +3 <sup>o</sup>	X
Chrysler ATF +4 <sup>o</sup>	X
DEXRON <sup>o</sup>	X
DEXRON <sup>o</sup> -IID	X
DEXRON <sup>o</sup> -IIE	X
DEXRON <sup>o</sup> -III	X
DEXRON <sup>o</sup> -III G	X
DEXRON <sup>o</sup> -III H	X
DEXRON <sup>o</sup> -VI	X
Esso LT 71141	X

5 Hill Street Kitchener, Ontario N2G 4R3 \*1-800-531-5823 \*519-571-1220 Fax 519-579-0286



## PRODUCT INFORMATION

Ford M2C138CJ	X
Ford M2C166H	X
Ford FNR5	X
GM99861695 (Aisin AW)	X
GM TASA	X
Honda ATF-Z1	X
Honda Premium	X
Hyundai SP-II, III, & IV	X
Hyundai NWS-9638	X
Jaguar ZF 5HP24	X
Jaguar LT1141	X
Jaguar JLM20238	X
Jaguar ATF 3403-M115	X
JASO 1A-02	X
JASO 2A-02	X
JWS 3324	X
JWS 3309	X
KIA ATF RED 1	X
KIA SP-II	X
KIA SP-III	X
KIA SP-IV	X
MAN 339 Type Z-1 and V-1	X
MAN 339 Type Z-2 and V-2	X
MAN 339F	X
Mazda ATF-III	X
Mazda M-V	X
MB223.2	X
MB236.1	X
MB236.2	X

5 Hill Street Kitchener, Ontario N2G 4R3 \*1-800-531-5823 \*519-571-1220 Fax 519-579-0286



## PRODUCT INFORMATION

MB236.5	X
MB236.6	X
MB236.7	X
MB236.8	X
MB236.9	X
MB236.10	X
MB236.11	X
MB236.12	N/A
MERCON <sup>®</sup>	X
MERCON <sup>®</sup> V	X
MERCON <sup>®</sup> LV	X
MERCON <sup>®</sup> SP	X
Mitsubishi Diamond SP-II	X
Mitsubishi Diamond SP-III	X
Mitsubishi Diamond SP-IV	X
NAG 1 (Jeep Cherokee)	X
NAG 1 (Chrysler)	X
Nissan Matic-D	X
Nissan Matic-S (replaces J)	X
Nissan Matic-K	X
Peugeot ZF 4HP20	X
Porsche ZF 5HP19F	X
Porsche ATF3403-115	X
Porsche T-IV	X
Shell 3403-M115	X
Shell LA2634	X
Subaru ATF/ATF-HP	X
Texaco 7045-E	X
Texaco ETL-8072B	X



## PRODUCT INFORMATION

Toyota T-III	X
Toyota T-IV	X
Toyota WS	X
Voith 55.6336.32 (G1363)	X
Voith 55.3665	X
Voith Turbo	X
Volvo 97340	X
Volvo 97341	X
VW TL52162	X
VW G-052-162-A2	X
VW G-053-025-A2	X
VW G-053-162-A1	X
ZF Ecomat	X
ZF TE-ML 02F	X
ZF TE-ML 03D	X
ZF TE-ML 04D	X
ZF TE-ML 09	X
ZF TE-ML 11A	X
ZF TE-ML 14A	X
ZF TE-ML 14B	X
ZF TE-ML 14C	X
ZF TE-ML 16L	X
ZF TE-ML 17C	X

X = Suitable for Use  
 N/A = Not Applicable/Not Suitable for Use  
 \* Always refer to owner's manual for required fluid specifications.  
 \*\* Does not meet the extended drain interval requirement



# TURBO POWER®

## DO NOT ADD WATER

# ANTIFREEZE/COOLANT UNIVERSAL 50/50 PREMIXED



- Protects against winter freezing and summer boil over
- Prevents pitting caused by cavitation and corrosion of brass, copper, solder, steel, cast iron and aluminum
- Low silicate and aluminum compatible
- Recommended for older model domestic and foreign cars and light duty trucks
- Available as a concentrate

**PRODUCT DESCRIPTION:** Universal 50/50 Premixed Antifreeze/Coolant is a superior quality ethylene glycol based engine coolant with a low silicate corrosion inhibitor package. This product protects coolant system metals, including heat-rejecting aluminum, against pitting caused by cavitation and corrosion. It provides protection against radiator freeze-up down to -37°C and boil over to 129°C (with a 100 kilopascal {15 psi} radiator cap in good condition).

Universal 50/50 Premixed Antifreeze/Coolant is recommended for use in older model domestic and foreign cars and light duty trucks and will provide up to 80,000 km or 2 years service life when installed as initial fill, or after a complete flush and cleaning of a cooling system in reasonable condition. It is compatible with supplemental coolant additives (SCA) and coolant filters and thus can be used in heavy duty diesel coolant systems when pre-charged with SCA.

**Chemical Name:** Ethylene Glycol-based Engine Coolant  
**Typical Product Properties**

Characteristic	Performance	Test Method
pH	10 - 11	ASTM D1287
Specific gravity <sup>b</sup>	1.070 - 1.090	ASTM D1122
Freeze point (°C/°F)	-37/ -34	ASTM D1177
Foam volume (mL)	150 max.	ASTM D1881
Foam break time (second)	5 max.	ASTM D1881
Reserve Alkalinity (mL)	3.4 min.	ASTM D1121
Chloride (ppm)	25 max.	ASTM D3634
Silicon (ppm)	250 max.	ASTM D6130
Colour	Green	
Glycol Content (wtg.%)	46 min.	
Inhibitors and Water Content (wtg.%)	54 max.	

### Meets the following specifications:

ASTM D3306, D4985  
GM 1825M, 1899M  
Chrysler MS7170  
Ford ESE-M97B44-A  
TMC RP 302B

Item #	Size	UPC	Units /Case	SCC14
16-422	1.89 L	0 56438 16422 7	6	6 00 56438 16422 9
16-424	3.78 L	0 56438 16424 1	4	4 00 56438 16424 9
26-428	205 L	N/A	drum	N/A
26-429	205 L	0 56438 26429 3	drum	N/A

<sup>b</sup> Measured at 15.6°C/60°F

**NOTICE:** This product is shipped in compliance with applicable laws and regulations regarding classification, packaging, shipping and handling. The performance and physical property data described for this product are typical results not sale specifications, except where maximum or minimum is indicated. Refer to Material Safety Data Sheets for further information.

Because use conditions and applicable laws may differ from one location to another and may change with time, the customer is responsible for determining whether product and the information in this document are appropriate for their use and for ensuring that their workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Recochem's warranty is limited to the claims of product meeting stated performance specifications. It is the responsibility of the end-user to determine product suitability as recommended in the owner's manual and to follow engine manufacturer's instructions.



**Recochem Inc.**  
Your Partner in Formulating Solutions

www.recochem.com  
www.coolantexperts.com

Montréal • Toronto • Edmonton • Vancouver

# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	CASSIDA FLUID GL 320
<b>Other means of identification</b>	No data available.
<b>Recommended use:</b>	Lubricating fluid
<b>Restrictions on use:</b>	Industrial use only

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name:	Fuchs Lubricants Co.
Address:	17050 Lathrop Avenue Harvey, Illinois 60426
Telephone:	708-333-8900
Fax:	708-333-9180
Contact Person:	EHS Department
E-mail:	sds@fuchsus.com

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard identification

### Hazard Classification

Not classified as hazardous under GHS

### Label Elements

<b>Hazard Symbol:</b>	No symbol
<b>Signal Word:</b>	No signal word.
<b>Hazard Statement:</b>	Not applicable
<b>Precautionary Statements</b>	Not applicable

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients

**Mixtures**

**Composition Comments:** The components are not hazardous or are below required disclosure limits.

**4. First-aid measures**

**Ingestion:** Rinse mouth thoroughly. Call a POISON CENTER/doctor/ if you feel unwell. Do NOT induce vomiting.

**Inhalation:** Move to fresh air. Call a POISON CENTER/doctor/ if you feel unwell.

**Skin Contact:** Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

**Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Get medical attention if symptoms occur.

**5. Fire-fighting measures**

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, fog, CO2, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**

<b>Personal precautions, protective equipment and emergency procedures:</b>	See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.
<b>Methods and material for containment and cleaning up:</b>	Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.
<b>Environmental Precautions:</b>	Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

<b>Precautions for safe handling:</b>	Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.
<b>Conditions for safe storage, including any incompatibilities:</b>	Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

#### Appropriate Engineering Controls

No data available.

### Individual protection measures, such as personal protective equipment

<b>General information:</b>	Use personal protective equipment as required.
<b>Eye/face protection:</b>	Wear safety glasses with side shields (or goggles).
<b>Skin Protection</b>	
<b>Hand Protection:</b>	No data available.
<b>Other:</b>	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.
<b>Hygiene measures:</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

## 9. Physical and chemical properties

## Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	No data available.
<b>Color:</b>	Colorless
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	245 °C
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	0.844
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	320 mm <sup>2</sup> /s (40 °C)

## 10. Stability and reactivity

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

- Inhalation:** Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
- Skin Contact:** Prolonged skin contact may cause redness and irritation.
- Eye contact:** Eye contact is possible and should be avoided.
- Ingestion:** May be ingested by accident. Ingestion may cause irritation and malaise.

### Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation:** No data available.
- Skin Contact:** No data available.
- Eye contact:** No data available.
- Ingestion:** No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

- Oral**  
**Product:** ATEmix: 2000 - 5000 mg/kg
- Dermal**  
**Product:** ATEmix: 2000 - 5000 mg/kg
- Inhalation**  
**Product:** Not classified for acute toxicity based on available data.

#### Delayed and immediate effects, including chronic effects from short- and long-term exposure

- Product:** No data available.

#### Skin Corrosion/Irritation

- Product:** No data available.

#### Serious Eye Damage/Eye Irritation

- Product:** No data available.

#### Respiratory or Skin Sensitization

- Product:** No data available.

#### Carcinogenicity

- Product:** No data available.

#### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**ACGIH Carcinogen List:**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in soil:**

No data available.

**Other adverse effects:**

No data available.

**13. Disposal considerations**

**Disposal instructions:**

Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:**

Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. Transport information**

**TDG**

Not regulated.

**IMDG**

Not regulated.

**IATA**

Not regulated.

**15. Regulatory information**



# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Chevron Hydraulic Oil 5606A

**Product Use:** Hydraulic Oil  
**Product Number(s):** 247707  
**Company Identification**  
Chevron Canada Limited  
1050 West Pender  
Vancouver, BC V6E 3T4  
Canada  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Flammable liquid: Category 4. Aspiration toxicant: Category 1. Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.



**Signal Word:** Danger

**Physical Hazards:** Combustible liquid (H227).

**Health Hazards:** May be fatal if swallowed and enters airways (H304).

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Keep away from heat, sparks, open flames and other ignition sources. No smoking (P210). Avoid release to the environment (P273). Wear protective gloves/protective clothing/eye protection/face protection (P280).

**Response:** IF SWALLOWED: Immediately call a POISON CENTER/doctor (P301+P310). Do NOT induce vomiting (P331). In case of fire: Use media specified in the SDS to extinguish (P370+P378).

**Storage:** Store locked up (P405). Store in a well-ventilated place (P403).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Distillates, hydrotreated light	64742-47-8	70 - 80 %weight
Highly refined mineral oil (C15 - C50)	Mixture	10 - 20 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Skin contact may cause drying or defatting of the skin. Contact with the skin is not expected to cause an allergic skin response. Symptoms may include pain, itching, discoloration, swelling, and blistering. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Highly toxic; may be fatal if swallowed. Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis. In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs). See Section 7 for proper handling and storage.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds

will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 29C (85F).

DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Wash thoroughly after handling.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**General Storage Information:** DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces . USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted.

Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required. Air-Purifying Respirator for Organic Vapors.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Distillates, hydrotreated light	ACGIH	200 mg/m3	--	--	Skin A3
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Red

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available  
**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg (Estimated) @ 37.8 °C (100 °F)  
**Vapor Density (Air = 1):** >4  
**Initial Boiling Point:** 207.2°C (405°F)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Melting Point:** No data available  
**Specific Gravity:** 0.86 - 0.90 @ 15°C (59°F)  
**Density:** 0.86 kg/l - 0.90 kg/l @ 15°C (59°F)  
**Viscosity:** 13.20 mm<sup>2</sup>/s @ 40°C (104°F) Minimum  
**Coefficient of Therm. Expansion / °F:** Not Applicable  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

#### **FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 80 °C (176 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

### **SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

### **SECTION 11 TOXICOLOGICAL INFORMATION**

#### **Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The product has not been tested. The statement

has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS UNDER TRANSPORT CANADA

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS UNDER THE ICAO TI / IATA DGR CODE

**DOT Shipping Description:** UN1268, PETROLEUM PRODUCTS, N.O.S., COMBUSTIBLE LIQUID, III ; ADDITIONAL INFORMATION: NON-BULK PACKAGES ARE NOT REGULATED IN THE USA. SEE 173.150 (F) FOR SPECIAL PROVISIONS FOR VESSEL AND AIRCRAFT

**SECTION 15 REGULATORY INFORMATION**

REGULATORY LISTS SEARCHED:

- |                     |                      |
|---------------------|----------------------|
| 01-1=IARC Group 1   | 03=EPCRA 313         |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2B | 05=MA RTK            |
| 02=NTP Carcinogen   | 06=NJ RTK            |
|                     | 07=PA RTK            |

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** FEBRUARY 11, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Rando HDZ 32, 46, 68, 100

**Product Use:** Hydraulic Oil

**Product Number(s):** 254609, 254610, 254611, 273260, 273261, 273262, 273263

**Synonyms:** Rando HDZ 32, 46, 68, 100 ISOCLEAN Certified

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com

Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this

material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

<b>SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
--

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/	TWA	STEL	Ceiling	Notation

	Agency				
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Colorless to yellow

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Density:** 0.8613 - 0.8746 kg/l @ 15°C (59°F)

**Viscosity:** 32 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Coefficient of Therm. Expansion / °F:** Not Applicable

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 175 °C (347 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.  
**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

### MOBILITY

No data available.

### PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

### POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

- 01-1=IARC Group 1
- 01-2A=IARC Group 2A
- 01-2B=IARC Group 2B
- 35=WHMIS IDL

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TCSI (Taiwan), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1,9,14,15

**Revision Date:** August 12, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Clarity Hydraulic Oil AW 32, 46, 68, 100

**Product Use:** Hydraulic Oil

**Product Number(s):** 230340, 230341, 230342, 255702

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank

cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Silver Shield, Viton, Nitrile Rubber.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and

Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Colorless

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg (Estimated) @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 (Estimated)

**Initial Boiling Point:** 315°C (599°F) (Estimated)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Density:** 0.86 kg/l - 0.87 kg/l @ 15°C (59°F)

**Viscosity:** 32 mm<sup>2</sup>/s - 110 mm<sup>2</sup>/s @ 40°C (104°F)

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 190 °C (374 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual

components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.SM.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

REGULATORY LISTS SEARCHED:

---

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** JANUARY 14, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own

determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Delo 400 LE SAE 15W-40

**Product Use:** Diesel Engine Oil

**Product Number(s):** 222220

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com

Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight
Zinc alkyl dithiophosphate	68649-42-3	0.1 - < 2.5 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS

Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed** Not Applicable

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

- Color:** Brown
- Physical State:** Liquid
- Odor:** Petroleum odor
- Odor Threshold:** No data available
- pH:** Not Applicable
- Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)
- Vapor Density (Air = 1):** >1
- Initial Boiling Point:** 315°C (599°F)
- Solubility:** Soluble in hydrocarbons; insoluble in water
- Freezing Point:** Not Applicable
- Melting Point:** Not Applicable
- Specific Gravity:** 0.87 - 0.9 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)
- Density:** 0.8806 kg/l @ 15°C (59°F) (Typical)
- Viscosity:** 14.6 mm2/s @ 100°C (212°F) (Typical)
- Evaporation Rate:** No data available
- Decomposition temperature:** No data available
- Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

- Flammability (solid, gas):** No Data Available
- Flashpoint:** (Cleveland Open Cup) 204 °C (399 °F) Minimum
- Autoignition:** No data available
- Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

- Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
- Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable  
**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.  
**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).



## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is not expected to be harmful to aquatic organisms.  
The product has not been tested. The statement has been derived from the properties of the individual components.

### MOBILITY

No data available.

### PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.  
The product has not been tested. The statement has been derived from the properties of the individual components.

### POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER TDG REGULATIONS

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

## SECTION 15 REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), KECL (Korea), PICCS (Philippines), TSCA (United States).

One or more components has been notified but may not be listed in the following chemical inventories: IECSC (China). Secondary notification may be required.

One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required. All other components are listed or exempted from listing on EINECS.

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** JUNE 18, 2015

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility**

**for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### FM CSC EP 1, 2

**Product Use:** Food grade lubricant

**Product Number(s):** 230205, 230206

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
White mineral oil	8042-47-5	60 - 99 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty

container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Viton, Nitrile Rubber, Silver Shield.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
White mineral oil	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Light to Brown

**Physical State:** Semi-solid

**Odor:** Faint or Mild

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.10 mmHg Maximum @ 20 °C (68 °F)

**Vapor Density (Air = 1):** >5 Minimum

**Initial Boiling Point:** 315°C (599°F) Minimum

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** No data available

**Melting Point:** No data available

**Density:** 0.95 - 1.05 g/ml @ 25°C (77°F)

**Viscosity:** 90 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Evaporation Rate:** <0.01

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

#### **FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 220 °C (428 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

### **SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

### **SECTION 11 TOXICOLOGICAL INFORMATION**

#### **Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for similar materials.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

**MOBILITY**

No data available.



## PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

## POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1

01-2A=IARC Group 2A

01-2B=IARC Group 2B

35=WHMIS IDL

The following components of this material are found on the regulatory lists indicated.

White mineral oil

35

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:  
1 - 16

**Revision Date:** MARCH 22, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Multifak EP 0, 1, 2

**Product Use:** Grease

**Product Number(s):** 219571, 219572, 274501, 274502, 274503

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).

**PRECAUTIONARY STATEMENTS:**

---

**Prevention:** Avoid release to the environment (P273).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	1 - 5 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and

drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

### Occupational Exposure Limits:

No applicable occupational exposure limits exist for this material or its components. NOTE ON

OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

- Color:** Brown
- Physical State:** Semi-solid
- Odor:** Petroleum odor
- Odor Threshold:** No data available
- pH:** Not Applicable
- Vapor Pressure:** <0.01 mmHg @ 100 °C (212 °F)
- Vapor Density (Air = 1):** >1
- Initial Boiling Point:** 260°C (500°F)
- Solubility:** Soluble in hydrocarbons; insoluble in water
- Freezing Point:** No data available
- Melting Point:** 166°C (330.8°F) (Min)
- Density:** No data available
- Viscosity:** No data available
- Evaporation Rate:** No data available
- Decomposition temperature:** No data available
- Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

- Flammability (solid, gas):** No Data Available
  
- Flashpoint:** (Cleveland Open Cup) 200 °C (392 °F) (Min)
- Autoignition:** No data available
- Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

- Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
- Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- Incompatibility With Other Materials:** Not applicable
- Hazardous Decomposition Products:** None known (None expected)
- Hazardous Polymerization:** Hazardous polymerization will not occur.
- Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for similar materials.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for similar materials.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

---

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TDG REGULATIONS

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR



## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B  
35=WHMIS IDL

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

## SECTION 16 OTHER INFORMATION

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:  
1-16

**Revision Date:** MARCH 22, 2016

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with**

which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

# Material Safety Data Sheet

Transit AW Hydraulic Oils: AW 32; AW46; AW 68



## 1. Product and company identification

**Product name** : Transit AW Hydraulic Oils: AW 32; AW46; AW 68  
**Material uses** : Lubricating oil.  
**Supplier/Manufacturer** : Transit Lubricants Ltd.  
5 Hill Street  
Kitchener, Ontario N2G 4R3  
PH: (800) 531-5823 (519) 571-1220 FAX: (519) 579-0286  
**Date of issue** : 06/15/2010  
**In Case of emergency** : Transportation: 215-244-2114 8am-4:30pm EST Monday to Friday  
CHEMTREC: 800-424-9300 24 hrs Everyday

## 2. Hazards Identification

**Physical state** : Liquid. [Clear. / Bright.]  
**Odor** : Petroleum.  
**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  
**Emergency overview** : CAUTION!  
MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.  
Slightly irritating to the eyes and skin. Defatting to the skin. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not ingest. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.  
**Potential chronic health effects**  
**Chronic effects** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.  
**Over-exposure signs/symptoms**  
**Inhalation** : No specific data.  
**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting



## 2. Hazards identification

- Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Eyes** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : None known.
- See toxicological information (section 11)

## 3. Composition/information on ingredients

### United States

Name	CAS number	%
Base Oils.	See below.	>10

The Base Oil may contains one or more of the following ingredients: 61788-76-9, 64741-88-4, 64742-01-4, 64742-65-0, 64742-89-5, 64742-48-9, 64742-52-5, 64742-54-7, 64742-56-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
  - Not suitable** : None known.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

	United States
<b>Product name</b>	<b>Exposure limits</b>
Base Oils.	NIOSH REL (United States, 6/2008). STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Mist TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Mist

### Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.



## 8 . Exposure controls/personal protection

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Eyes** : Safety glasses.  
**Skin** : Lab coat.  
**Respiratory** : A respirator is not needed under normal and intended conditions of use.  
**Hands** : Natural rubber (latex).

### Personal protective equipment (Pictograms)



**HMIS Code/Personal protective equipment** : B

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

**Physical state** : Liquid. [Clear. / Bright.]  
**Flash point** : Open cup: >200°C (>392°F) [Cleveland.]  
**Color** : Amber.  
**Odor** : Petroleum.  
**Relative density** : 0.9 @ 15.6°C  
**Vapor pressure** : <0.13 kPa (<1 mm Hg)  
**Solubility** : Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

**Stability** : The product is stable.  
**Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.  
**Conditions to avoid** : No specific data.  
**Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials.  
**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

**Acute toxicity**  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : Aspiration hazard if swallowed. Can enter lungs and cause damage.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Slightly irritating to the eyes.



## 12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

## 13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

AERG : Not applicable.

Regulatory information

DOT/ IMDG/ IATA : Not regulated.

## 15 . Regulatory information

United States

HCS Classification : Not regulated.

U.S. Federal regulations : TSCA 8(a) PAIR: Zinc Alkyldithiophosphate

United States inventory (TSCA 8b): All components are listed or exempted.

TSCA 8(d) H and S data reporting: Zinc Alkyldithiophosphate: 2006

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

Clean Water Act (CWA) 307: Zinc Alkyldithiophosphate

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations

: Connecticut Carcinogen Reporting: None of the components are listed.

Connecticut Hazardous Material Survey: None of the components are listed.

Florida substances: None of the components are listed.

Illinois Chemical Safety Act: None of the components are listed.

Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.

Louisiana Reporting: None of the components are listed.

Louisiana Spill: None of the components are listed.

Massachusetts Spill: None of the components are listed.

Massachusetts Substances: None of the components are listed.

Michigan Critical Material: None of the components are listed.

Minnesota Hazardous Substances: None of the components are listed.

New Jersey Hazardous Substances: None of the components are listed.

New Jersey Spill: None of the components are listed.

New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.



## 15 . Regulatory information

**New York Acutely Hazardous Substances:** None of the components are listed.  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** None of the components are listed.  
**Rhode Island Hazardous Substances:** None of the components are listed.

**California Prop. 65** : No products were found.

**International regulations**

**International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

**Label requirements** : MAY CAUSE EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

**Hazardous Material Information System (U.S.A.)** :

### HAZARD RATINGS

Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

**The customer is responsible for determining the PPE code for this material.**

**National Fire Protection Association (U.S.A.)** :



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

**Date of issue** : 06/15/2010

**Date of previous issue** : 10/30/2009

**Version** : 2

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Cetus HiPerSYN Oil 100, 150, 220, 320, 460

**Product Use:** Compressor Oil

**Product Number(s):** 259139, 259140, 259141, 259142, 259143, 278028, 278029, 278030, 278031, 278032

**Synonyms:** Cetus HiPerSYN Oil 100, 150, 220, 320, 460, ISO CLEAN Certified

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	40 - 90 %weight

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

##### Indication of any immediate medical attention and special treatment needed

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

#### SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

## PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Special note: Do not use in breathing air apparatus or medical equipment.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Colorless to yellow

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 288°C (550.4°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Specific Gravity:** 0.85 - 0.86 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)

**Density:** No data available

**Viscosity:** 100 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Evaporation Rate:** No data available

**Decomposition temperature:** No Data Available

**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 224 °C (435 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe

solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

**SECTION 15 REGULATORY INFORMATION**

**EPCRA 311/312 CATEGORIES:**

1. Immediate (Acute) Health Effects:	NO
2. Delayed (Chronic) Health Effects:	NO
3. Fire Hazard:	NO
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States). One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required. All other components are listed or exempted from listing on EINECS.

One or more components does not comply with the following chemical inventory requirements: DSL (Canada)

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Lubricating oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1 - 16  
**Revision Date:** MARCH 11, 2015

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Multigear EP-5 SAE 80W-90, 85W-140

**Product Use:** Automotive Gear Lubricant

**Product Number(s):** 223032, 223033

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15-C50)	Mixture	70 - 99 %wt/wt
Olefin polysulphide	Trade secret	1 - 5 %wt/wt
Phosphoric acid ester, amine salt	Mixture	0.1 - 1.5 %wt/wt

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed** Not Applicable

### SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal

protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15-C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15-C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Olefin polysulphide	Not Applicable	--	--	--	--
Phosphoric acid ester, amine salt	Not Applicable	--	--	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Melting Point:** No data available  
**Specific Gravity:** 1 @ 15°C (59°F) (Typical)  
**Density:** 0.8856 kg/l - 0.9089 kg/l @ 15°C (59°F) (Typical)  
**Viscosity:** 13.70 mm<sup>2</sup>/s @ 100°C (212°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (ASTM D92) 180 °C (356 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

## SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Gear oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16.

**Revision Date:** MARCH 18, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Multigear EP-5 SAE 80W-90, 85W-140

**Product Use:** Automotive Gear Lubricant

**Product Number(s):** 223032, 223033

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

---

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15-C50)	Mixture	70 - 99 %wt/wt
Olefin polysulphide	Trade secret	1 - 5 %wt/wt
Phosphoric acid ester, amine salt	Mixture	0.1 - 1.5 %wt/wt

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed** Not Applicable

### SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal

protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15-C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15-C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Olefin polysulphide	Not Applicable	--	--	--	--
Phosphoric acid ester, amine salt	Not Applicable	--	--	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Melting Point:** No data available  
**Specific Gravity:** 1 @ 15°C (59°F) (Typical)  
**Density:** 0.8856 kg/l - 0.9089 kg/l @ 15°C (59°F) (Typical)  
**Viscosity:** 13.70 mm<sup>2</sup>/s @ 100°C (212°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (ASTM D92) 180 °C (356 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

## SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Gear oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16.

**Revision Date:** MARCH 18, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Chevron Ultra-Duty Grease EP NLGI 0, 1, 2

**Product Use:** Grease

**Product Number(s):** 238011, 238012, 238013

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com

Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).



**PRECAUTIONARY STATEMENTS:**

**Prevention:** Avoid release to the environment (P273).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	1 - 5 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an

accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

---

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Red

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg Maximum @ 100 °C (212 °F)

**Vapor Density (Air = 1):** >1 Minimum

**Initial Boiling Point:** 260°C (500°F) Minimum

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** No data available

**Melting Point:** 165°C (329°F) (Min)

**Specific Gravity:** 1.10 @ 15.6°C (60.1°F) (Estimated)

**Density:** No data available

**Viscosity:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** 274 °C (525 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not

been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

### MOBILITY

No data available.

### PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

### POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or

quantity-specific shipping requirements.

**TC Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TDG REGULATIONS

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

- 01-1=IARC Group 1
- 01-2A=IARC Group 2A
- 01-2B=IARC Group 2B
- 35=WHMIS IDL

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 9, 16

**Revision Date:** June 10, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit



GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Chevron Way Lubricant 32, 68, 220

**Product Use:** Industrial Oil

**Product Number(s):** 273110, 273111, 277315

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.  
Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank

cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and

Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Varies depending on specification

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Density:** 0.86 kg/l - 0.89 kg/l @ 15°C (59°F) (Typical)

**Viscosity:** 32 mm<sup>2</sup>/s - 209 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 190 °C - 216 °C (374 °F - 421 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**



No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

REGULATORY LISTS SEARCHED:

- |                     |                      |
|---------------------|----------------------|
| 01-1=IARC Group 1   | 03=EPCRA 313         |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2B | 05=MA RTK            |

02=NTP Carcinogen

06=NJ RTK

07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** NOVEMBER 13, 2015

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.





# CHEVRON ATF HD 389

## PRODUCT DESCRIPTION

Chevron ATF HD 389 is designed for Allison on-highway, heavy-duty transmissions which require the TES-389 Schedule One ATF. It is also suitable for use in most pre-2006 automatic transmissions built by General Motors, Ford Motor Company and other makes which need a high-performance, multi-purpose, power transmission fluid.

## CUSTOMER BENEFITS

Chevron ATF HD 389 delivers value through:

- **Protection** against the formation of lacquers, sludge, or other harmful deposits.
- **Exceptional stability** provided by high-quality base oil and oxidation inhibitors.
- **Compatibility with seals** — Especially effective in protecting fluoroelastomer seals used in Allison heavy-duty transmissions.
- **Fast circulation during cold weather** and excellent lubricating body when hot.
- **Easy identification** — Dyed red in color.

## FEATURES

Chevron ATF HD 389 is formulated with Group II base stocks and additives that help provide oxidation and thermal stability, friction control, load-carrying ability, corrosion and wear protection. It helps protect against the formation of deposits, sludge, varnish, and foam.

Chevron ATF HD 389 provides outstanding durability.

Under the most severe operating conditions, Chevron ATF HD 389:

- maintains friction control for smooth shift action.
- protects against cracking of fluoroelastomer seals used in Allison transmissions.
- retains low temperature fluidity and high temperature stability for long operating periods.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

9 September 2015  
TTF-18

© 2007-2015 Chevron U.S.A. Inc. All rights reserved.

Chevron and the Chevron Hallmark are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

- protects automatic transmission fluid coolers from corrosion.
- minimizes the chances of a transmission overhaul due to sludge, corrosion, and wear.

## APPLICATIONS

Chevron ATF HD 389 is designed for Allison on-highway, heavy-duty transmissions which require the TES-389 Schedule One ATF. It is also suitable for use in most pre-2006 automatic transmissions built by General Motors, Ford Motor Company and other makes which need a high-performance, multi-purpose, power transmission fluid.

**Chevron ATF HD 389 meets or exceeds the performance requirements of:**

- **Allison** TES-389

**Chevron ATF HD 389 is recommended for:**

- **Allison** C-4 Fluid
- **Ford** MERCON<sup>®1</sup>
- **General Motors** DEXRON<sup>®2</sup>-III H

Allison transmissions manufactured in 2007 and beyond can use either a DEXRON-VI or TES-389 fluid. Allison models built in 2006 or earlier should use only a TES-389 fluid to ensure seal compatibility.

Chevron ATF HD 389 has the following qualifications:

	West	Central	East
Allison TES-389	AA-33902015	AA-33832015	AA-34052015

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

1 MERCON is a registered trademark of Ford Motor Company.

2 DEXRON is a registered trademark of General Motors LLC.

Do not use in a breathing apparatus or medical equipment.

### TYPICAL TEST DATA

<b>SAE Grade</b>	<b>10W</b>
<i>Product Number</i>	226534
<i>SDS Number</i>	20495
API Gravity	33.8
Viscosity, Kinematic cSt at 40°C cSt at 100°C	34.3 7.1
Viscosity, Brookfield cP at -40°C	17,000
Viscosity Index	176
Flash Point, °C(°F)	206(403)
Pour Point, °C(°F)	-48(-54)
Color	Red

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Chevron OEM Synthetic Gear Oil SAE 75W-90

**Product Use:** Automotive Gear Lubricant

**Product Number(s):** 221917

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Avoid release to the environment.

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**HAZARDS NOT OTHERWISE CLASSIFIED:** Heating may release highly toxic and flammable hydrogen sulfide (H<sub>2</sub>S). Mixing with acid may release highly toxic and flammable hydrogen sulfide gas (H<sub>2</sub>S). Do not attempt rescue without supplied-air respiratory protection.

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
1-Decene homopolymer hydrogenated	68037-01-4	60 - 70 %weight
Highly refined mineral oil (C15 - C50)	Mixture	1 - 10 %weight

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs. If exposure to hydrogen sulfide (H<sub>2</sub>S) gas is possible during an emergency, wear an approved, positive pressure air-supplying respirator. Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation

may include coughing and difficulty breathing. Hydrogen sulfide has a strong rotten-egg odor. However, with continued exposure and at high levels, H<sub>2</sub>S may deaden a person's sense of smell. If the rotten egg odor is no longer noticeable, it may not necessarily mean that exposure has stopped. At low levels, hydrogen sulfide causes irritation of the eyes, nose, and throat. Moderate levels can cause headache, dizziness, nausea, and vomiting, as well as coughing and difficulty breathing. Higher levels can cause shock, convulsions, coma, and death. After a serious exposure, symptoms usually begin immediately.

The U.S. National Institute for Occupational Safety and Health (NIOSH) considers air concentrations of hydrogen sulfide gas greater than 100 ppm to be Immediately Dangerous to Life and Health (IDLH).

**DELAYED OR OTHER HEALTH EFFECTS:**

**Reproduction and Birth Defects:** This material is not expected to cause adverse reproductive effects based on animal data.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** Administration of 100% oxygen and supportive care is the preferred treatment for poisoning by hydrogen sulfide gas. For additional information on H<sub>2</sub>S, see Chevron MSDS No. 301.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Sulfur.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Do not breathe gas. Wash thoroughly after handling. Keep out of the reach of children.

**Unusual Handling Hazards:** Toxic quantities of hydrogen sulfide (H<sub>2</sub>S) may be present in storage tanks and bulk transport vessels which contain or have contained this material. Persons opening or entering these compartments should first determine if H<sub>2</sub>S is present. See Exposure Controls/Personal Protection -Section 8. Do not attempt rescue of a person over exposed to H<sub>2</sub>S without wearing approved supplied-air or self-contained breathing equipment. If there is a potential for exceeding one-half the occupational exposure standard, monitoring of hydrogen sulfide levels is required. Since the sense of smell cannot be relied upon to detect the presence of H<sub>2</sub>S, the concentration should be measured by the use of fixed or portable devices.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required. If material is heated and emits hydrogen sulfide, determine if airborne concentrations are below the occupational exposure limit for hydrogen sulfide. If not, wear an approved positive pressure air-supplying respirator. For more information on hydrogen sulfide, see Chevron MSDS No. 301. If material is neutralized with acids and emits hydrogen sulfide, determine if airborne concentrations are below the occupational exposure limit for hydrogen sulfide. If not, wear an approved positive pressure air-supplying respirator. For more information on hydrogen sulfide, see Chevron MSDS No. 301. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
1-Decene homopolymer hydrogenated	Not Applicable	--	--	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** the data below are typical values and do not constitute a specification.

- Color:** Yellow
- Physical State:** Liquid
- Odor:** Faint or Mild
- Odor Threshold:** No data available
- pH:** Not Applicable
- Vapor Pressure:** <0.01 mmHg (Estimated) @ 37.8 °C (100 °F)
- Vapor Density (Air = 1):** >1 (Estimated)
- Initial Boiling Point:** 315°C (599°F) (Estimated)
- Solubility:** Soluble in hydrocarbons; insoluble in water
- Freezing Point:** Not Applicable
- Melting Point:** No data available

**Specific Gravity:** 0.85 @ 15.6°C (60.1°F) (Typical)  
**Density:** 0.84 - 0.87 @ 15.6°C (60.1°F)  
**Viscosity:** 80 mm<sup>2</sup>/s @ 40°C (104°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 175 °C (347 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil

recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

**SECTION 15 REGULATORY INFORMATION**

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

- |                     |                      |
|---------------------|----------------------|
| 01-1=IARC Group 1   | 03=EPCRA 313         |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2B | 05=MA RTK            |
| 02=NTP Carcinogen   | 06=NJ RTK            |
|                     | 07=PA RTK            |

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TCSI (Taiwan), TSCA (United States).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Gear oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This is a new Safety Data Sheet.

**Revision Date:** July 08, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of**

the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



# CHEVRON SOLUBLE OIL B

---

## PRODUCT DESCRIPTION

Chevron Soluble Oil B is used broadly in machine shops as a multifunctional cutting fluid. It is primarily formulated to cool and lubricate the contact point of the tool and the work piece.

## CUSTOMER BENEFITS

Chevron Soluble Oil B delivers value through:

- **Minimal separation** — Excellent emulsion even with hard water
- **Good rust protection** for steel work and machined parts even when water/oil emulsion ratios are 80:1
- **Cooling** maximized by metal wetting. In addition, promotes good chip settling.
- **Minimal foaming** — Possibility of sump overflow minimized
- **Good stability in storage** — Minimal tendency to turn rancid
- **Good ability to control bacterial growth and rancid odors**

## FEATURES

Chevron Soluble Oil B:

- helps prevent rusting or corrosion of the machined metals
- helps control the growth of bacteria — which is a constant problem in soluble oil circulating systems due to outside contamination
- minimizes surface foam
- speeds the release of entrained air which could cause pump cavitation

This is an extremely versatile fluid designed to meet many of the situations encountered in the metalworking industry.

Chevron Soluble Oil B is an emulsifying oil that readily mixes with water, forming a homogeneous and

exceptionally stable emulsion. It is used in the machining of both ferrous and nonferrous metals, particularly when cutting with carbon or high speed steel or tungsten carbide tools. It contains an effective biocide that combats bacterial growth, rancidity, and odor in machine sumps.

## APPLICATIONS

Chevron Soluble Oil B is recommended for metals (except magnesium) where maximum cooling is desired — particularly when cutting with carbon, high speed steel, or tungsten carbide tools.

Chevron Soluble Oil B is used extensively in milling, drilling, gear cutting, turning, planing, shaping, sawing, and grinding operations.

Chevron Soluble Oil B is typically diluted in water/oil ratios ranging from 10:1 to 50:1. See the Chevron Soluble Oil Mixing Recommendations chart for the proper water/oil ratio for each application.

Always add oil to water to avoid forming sticky invert emulsions that do not emulsify properly in water.

Chevron Soluble Oil B provides excellent in-process corrosion protection. Use of this product as a metal protective fluid for short-term rust protection is not recommended.

Do not recommend Chevron Soluble Oil B emulsions for operations involving magnesium. Hot magnesium is a fire hazard when it contacts water.

Emulsions of soluble metalworking fluids and water may become contaminated with harmful microorganisms such as bacteria and fungus, which can cause illness and infection. This can occur even in emulsions with fluids that initially contain some biocide because the biocide can be depleted during service. A metalworking fluid maintenance program should be followed in order to control this hazard. Such a program may require the use of biocides.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

12 May 2016  
MWF-40

© 2007-2015 Chevron U.S.A. Inc. All rights reserved.

Chevron and the Chevron Hallmark are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

**TYPICAL TEST DATA**

	<b>B</b>
<i>Product Number</i>	233703
<i>SDS Number</i>	7090
API Gravity	21.6
Viscosity, Kinematic cSt at 40°C cSt at 100°C	38.0 5.2
Viscosity, Saybolt SUS at 100°F SUS at 210°F	198 43.7
Flash Point, °C(°F)	160(320)
Pour Point, °C(°F)	-30(-22)
Total Sulfur, wt %	0.30
Active Sulfur, wt %	None
Volatile Organic Content (VOC), g/L ASTM E-1868-10	44

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

**MIXING RECOMMENDATIONS**

First figure indicates parts of water. Second figure indicates parts of Chevron Soluble Oil B.

<b>Material</b>	<b>Turning, Shaping, Planing, Drilling</b>	<b>Milling</b>	<b>Pipe and Plain Threading</b>	<b>Automatic Screw Machines</b>	<b>Grinding</b>	<b>Thread Grinding</b>	<b>Deep Drilling</b>	<b>Gear Shaving or Cutting</b>
Plain, medium, and high carbon steels	20:1	20:1	→	20:1	50:1	20:1	→	20:1
Alloy steels	15:1	15:1	→	15:1	50:1	15:1	→	15:1
Ingot iron, wrought iron, low carbon steels	15:1	15:1	→	15:1	50:1	15:1	→	15:1
Stainless steels, tool and die steels	10:1	10:1	→	10:1	50:1	10:1	→	10:1
Aluminum and aluminum alloys	25:1	25:1	30:1	30:1	50:1	30:1	20:1	30:1
Copper and brass	25:1	25:1	30:1	30:1	→	→	20:1	30:1
Zinc and zinc alloys	25:1	30:1	30:1	30:1	→	→	20:1	→
Bronze and high strength copper alloys	10:1	10:1	10:1	10:1	50:1	10:1	→	10:1
Magnesium and magnesium alloys	<b>FIRE HAZARD</b>							
Titanium and titanium alloys	10:1	10:1	→	→	→	→	→	→
Nickel and nickel alloys	10:1	10:1	→	10:1	50:1	10:1	→	10:1
Cast iron	Dry	Dry	Dry	→	Dry	Dry	Dry	Dry

→ Seldom used.

Emulsions of soluble metalworking fluids and water may become contaminated with harmful microorganisms such as bacteria and fungus, which can cause illness and infection. This can occur even in emulsions with fluids that initially contain some biocide because the biocide can be depleted during service. A metalworking fluid maintenance program should be followed in order to control this hazard. Such a program may require the use of biocides.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

12 May 2016  
MWF-40

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Delo 400 SAE 10W, 20

**Product Use:** Diesel Engine Oil  
**Product Number(s):** 235109, 235117  
**Company Identification**  
Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	0.5 - 1.5 %wt/wt
01154100-5284P	Trade secret	0.1 - < 1 %wt/wt
01154100-5031P	Trade secret	0.1 - < 1 %wt/wt
Branched alkylphenol and Calcium branched alkylphenol	74499-35-7 & 132752-19-3	0.1 - < 1 %wt/wt

## SECTION 4 FIRST AID MEASURES

### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

### Most important symptoms and effects, both acute and delayed

#### IMMEDIATE SYMPTOMS AND HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS:** Not classified.

#### Indication of any immediate medical attention and special treatment needed

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

## SECTION 5 FIRE FIGHTING MEASURES

Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

#### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Keep out of the reach of children. Wash thoroughly after handling.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.



## PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

### Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--

Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Varies depending on specification

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** Not Applicable

**Specific Gravity:** 0.87 - 0.9 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)

**Density:** 0.9 kg/l @ 15°C (59°F) (Typical)

**Viscosity:** 6.6 mm<sup>2</sup>/s @ 100°C (212°F) (Min)

**Decomposition temperature:** No Data Available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 200 °C (392 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** This material is not expected to react.  
**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.  
**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**  
**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.  
**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.  
**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.  
**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.  
**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.  
**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.  
**Acute Toxicity Estimate:** Not Determined  
**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.  
**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.  
**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.  
**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.  
**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**  
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

Tetrapropenyl phenol (TPP), also known as dodecyl phenol, was tested in a rat oral gavage one-generation reproductive toxicity study (doses of 0, 5, 25, or 125 mg/kg/day) and a rat dietary two-generation reproductive toxicity study (doses of 0, 1.5, 15, or 75 mg/kg/day). Results from the one-generation study demonstrated reduced ovary weights and changes in male reproductive accessory organs (decreased organ weights, decreased secretions, and decreased epididymal sperm concentrations) at 25 mg/kg/day; 5 mg/kg/day was identified as the No Observed Adverse Effect Level (NOAEL). Results from the two-generation study demonstrated prolonged estrous cyclicity, reduced ovary weights, accelerated sexual maturation, decreased mean live litter size, decreased fertility rates, hypospermia, and reduced weights in male reproductive accessory organs at 75 mg/kg/day; 15 mg/kg/day was identified as the NOAEL.

Evaluation of these two primary studies of TPP (one- & two-generation reproductive toxicity studies), as well as supporting data from additional in-vivo & in-vitro studies of both TPP and substances containing TPP & TPP/calcium salts as an impurity resulted in a classification of TPP as a Category 1B under the criteria of the Globally Harmonized System and Regulation (EC) No 1907/2006 (presumed reproductive hazard to humans).

The studies were also evaluated to identify a valid & reliable specific concentration limit (SCL) for reproductive effects, below which reproductive toxicity would not be expected to occur. An SCL of 1.5 wt% TPP & TPP/calcium salts was derived based on the identified NOAEL from the rat dietary two-generation reproductive toxicity study, and confirmed by supporting studies of substances containing TPP as an impurity.

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

This material contains one or more components that have a branched alkylphenol impurity that is highly toxic to aquatic organisms (disclosed in Section 3). The components containing the impurity have been tested and are not toxic to aquatic organisms. Therefore the data in Section 3 for the alkylphenol impurity should not be used to classify the product for aquatic toxicity.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available



## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

## SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

The following components of this material are found on the regulatory lists indicated.  
Zinc dialkyldithiophosphate 03, 06

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), KECI (Korea), PICCS (Philippines), TSCA (United States).  
 One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required. All other components are listed or exempted from listing on EINECS.

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Motor oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : ENGINE OIL 2 - ENG2

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16

**Revision Date:** JULY 17, 2014

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our**

**control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Delo 400 LE SAE 15W-40

**Product Use:** Diesel Engine Oil  
**Product Number(s):** 222220, 278058  
**Synonyms:** Delo 400 LE SAE 15W-40 ISOCLEAN Certified

**Company Identification**  
Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

Zinc alkyl dithiophosphate	68649-42-3	0.1 - < 2.5 %weight
01154100-5301P	Trade secret	0.1 - < 1 %weight

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed** Not Applicable

#### SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

##### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--
Zinc alkyl dithiophosphate	Not Applicable	--	--	--	--
01154100-5301P	Not Applicable	--	--	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

- Color:** Brown
- Physical State:** Liquid
- Odor:** Petroleum odor
- Odor Threshold:** No data available
- pH:** Not Applicable
- Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)
- Vapor Density (Air = 1):** >1
- Initial Boiling Point:** 315°C (599°F)
- Solubility:** Soluble in hydrocarbons; insoluble in water
- Freezing Point:** Not Applicable
- Melting Point:** Not Applicable
- Specific Gravity:** 0.87 - 0.9 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)
- Density:** 0.8806 kg/l @ 15°C (59°F) (Typical)
- Viscosity:** 14.6 mm2/s @ 100°C (212°F) (Typical)
- Evaporation Rate:** No data available
- Decomposition temperature:** No Data Available
- Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

- Flammability (solid, gas):** No Data Available
- Flashpoint:** (Cleveland Open Cup) 204 °C (399 °F) Minimum
- Autoignition:** No data available
- Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**Incompatibility With Other Materials:** Not applicable  
**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.

<b>SECTION 11 TOXICOLOGICAL INFORMATION</b>
---

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water. This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).



## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

### MOBILITY

No data available.

### PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

### POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

## SECTION 15 REGULATORY INFORMATION

**EPCRA 311/312 CATEGORIES:**

1. Immediate (Acute) Health Effects:	NO
2. Delayed (Chronic) Health Effects:	NO
3. Fire Hazard:	NO
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

The following components of this material are found on the regulatory lists indicated.  
 Zinc alkyl dithiophosphate 03, 06

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), KECI (Korea), PICCS (Philippines), TSCA (United States). One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required. All other components are listed or exempted from listing on EINECS.

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Motor oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : ENGINE OIL 1 - ENG1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1,16  
**Revision Date:** FEBRUARY 03, 2015

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number

ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**



# DELO® GEAR EP-5

## SAE 80W-90, 85W-140

---

### PRODUCT DESCRIPTION

Delo® Gear EP-5 gear lubricants are recommended for use in spiral bevel and hypoid differentials, power dividers, and oil-lubricated steering axle wheel bearings.

### CUSTOMER BENEFITS

Delo Gear EP-5 delivers value through:

- **Long gear life** — Extreme pressure properties protect hypoid and other types of gears from scuffing and wear.
- **Rust and corrosion protection** — Effective inhibitor package protects against rusting or corrosion of gear and bearing surfaces.
- **Excellent foam inhibition** — Foaming minimized by use of foam inhibitor.
- **Long lubricant life** — Outstanding thermal and oxidation stability allow high temperature operation with long lubricant life.
- **Seal Protection** — Formulated to protect against oil seal deterioration.

### FEATURES

Delo Gear EP-5 are multipurpose lubricants.

They are made from paraffinic base stocks and contain a carefully balanced additive package to provide gear protection and long lubricant life.

The sulfur-phosphorus extreme pressure additive technology used in Delo Gear EP-5 provides exceptional thermal and oxidation stability. In addition, this lubricant is fortified with rust and corrosion inhibitors, a foam inhibitor, and a pour point depressant.

The sulfur-phosphorus extreme pressure additives in Delo Gear EP-5 minimize the spalling and wear of gears by creating a microthin sacrificial film on the surface of the gear teeth which is actually softer than the gears themselves. Frictional heat and pressures between gear teeth cause the sulfur-phosphorus to react with the surfaces of the gear teeth at the point of contact, thus creating the sacrificial film.

The highly refined base stocks and various inhibitors in the additive package help assure a well-balanced lubricant and long gear and bearing life.

### APPLICATIONS

Delo Gear EP-5 lubricants are recommended for use in spiral bevel and hypoid differentials, power dividers, and oil-lubricated steering axle wheel bearings.

Their multiviscosity characteristics allow their use in equipment operating over a broad ambient temperature range. This means good cold flow properties and gear protection.

Delo Gear EP-5 lubricants are approved for **SAE J2360** (formerly known as MIL-PRF-2105E) and meet the requirements of:

- **API Service Categories** MT-1, GL-4 and GL-5
- **Mack GO-J**

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

18 April 2017

GL-46

© 2017 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron *Hallmark* and Delo are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

**TYPICAL TEST DATA**

<b>SAE Grade</b>	<b>80W-90</b>	<b>85W-140</b>
<i>Product Number</i>	223022	223021
<i>SDS Number</i>		
<i>U.S.</i>	44036	44036
<i>Canada</i>	44042	44042
<i>Mexico</i>	44043	44043
Density at 15.6°C(60°F), kg/L(lb/gal)	0.8856(7.39)	0.8991(7.50)
Viscosity, Kinematic		
cSt at 40°C	145	341
cSt at 100°C	14.2	25.0
Viscosity, Brookfield		
cP at -12°C	—	80,000
cP at -26°C	73,000	—
Viscosity Index	95	95
Flash Point, °C(°F)	218(421)	226(439)
Pour Point, °C(°F)	-33(-27)	-15(+5)

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

18 April 2017  
GL-46

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Delo Gear EP-5 SAE 80W-90, 85W-140

**Product Use:** Automotive Gear Lubricant

**Product Number(s):** 219941, 223021, 223022

**Company Identification**

Chevron Canada Limited

500 - 5th Ave. SW

Calgary, ALBERTA T2P 0L7

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Avoid release to the environment (P273).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15-C50)	Mixture	70 - 99 %wt/wt
Olefin polysulphide	Trade secret	0 - < 5 %wt/wt
Phosphoric acid ester, amine salt	Mixture	0 - < 2.5 %wt/wt
Long chain alkyl amine	Mixture	0 - < 0.5 %wt/wt

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at

airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed** Not Applicable

## **SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

### **PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Aldehydes, Alkyl Mercaptans, Hydrogen Sulfide, Sulfur.

## **SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## **SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

### Occupational Exposure Limits:

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15-C50)	ACGIH	5 mg/m3	10 mg/m3	—	—

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

**Color:** Brown  
**Physical State:** Liquid  
**Odor:** Petroleum odor  
**Odor Threshold:** No data available  
**pH:** No data available  
**Vapor Pressure:** No data available  
**Vapor Density (Air = 1):** No data available  
**Initial Boiling Point:** No data available  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** No data available  
**Melting Point:** No data available  
**Density:** 0.8850 kg/l - 0.9050 kg/l @ 15°C (59°F) (Typical)  
**Viscosity:** 13.70 mm<sup>2</sup>/s @ 100°C (212°F) Minimum  
**Coefficient of Therm. Expansion / °F:** No data available  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (ASTM D92) 165 °C - 180 °C (329 °F - 356 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: No data available Upper: No data available

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

Revision Number: 1

5 of 9

Delo Gear EP-5 SAE 80W-90, 85W-140

Revision Date: February 14, 2018

SDS : 44042

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as: carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

#### **ECOTOXICITY**

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

#### **MOBILITY**

No data available.

#### **PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

#### **POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

### **SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

### **SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

DOT Shipping Description: NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** SECTION 01 - Product Code(s) information was modified.  
SECTION 03 - Composition information was modified.  
SECTION 05 - Fire Fighters Protection Measures information was modified.  
SECTION 05 - Special hazards arising from the substance or mixture information was added.  
SECTION 09 - Physical/Chemical Properties information was deleted.  
SECTION 09 - Physical/Chemical Properties information was modified.  
SECTION 11 - Additional Toxicology Information information was deleted.

Revision Date: February 14, 2018

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency

SCBA - Self-Contained Breathing Apparatus	
---	--

Prepared according to the WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.
---

<p>The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use.</p> <p>This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.</p>
---

---

Revision Number: 1

9 of 9

Delo Gear EP-5 SAE 80W-90, 85W-140

Revision Date: February 14, 2018

SDS : 44042

# Safety Data Sheet



<b>SECTION 1 PRODUCT AND COMPANY IDENTIFICATION</b>
---

## Delo Grease EP 0, 00, 1, 2

**Product Use:** Grease  
**Product Number(s):** 235208, 235209, 235211, 235212  
**Company Identification**  
Chevron Canada Limited  
500 - 5th Ave. SW  
Calgary, ALBERTA T2P 0L7  
Canada  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887  
**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623  
**Product Information**  
email : lubemsds@chevron.com  
Product Information: (800) LUBE TEK

<b>SECTION 2 HAZARDS IDENTIFICATION</b>
---

**CLASSIFICATION:** Acute aquatic toxicant: Category 2. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Toxic to aquatic life (H401). Harmful to aquatic life with long lasting effects (H412).

**PRECAUTIONARY STATEMENTS:**  
**Prevention:**Avoid release to the environment (P273).  
**Disposal:**Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

<b>SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS</b>
--

COMPONENTS	CAS NUMBER	AMOUNT
------------	------------	--------

Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	1 - 5 %wt/wt
Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs., borated	134758-95-5	1 - < 2.5 %wt/wt
Phosphoric acid ester, amine salt	Confidential	0.1 - < 1 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

## SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs., borated	ACGIH	2 mg/m3	6 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Blue

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg Maximum @ 100 °C (212 °F)

**Vapor Density (Air = 1):** >1 Minimum

**Initial Boiling Point:** 260°C (500°F) Minimum

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** 240°C (464°F) (Min)

**Specific Gravity:** 0.91 @ 15.6°C (60.1°F)

**Viscosity:** 15 mm2/s @ 100°C (100°F) Minimum

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 200 °C (392 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for similar materials.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for similar materials.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is expected to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

### MOBILITY

No data available.

### PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

### POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 3, 15, 16.

**Revision Date:** SEPTEMBER 03, 2015

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Delo Heavy Duty Moly 3% EP 1, 5% EP 1, 3% EP 2, 5% EP 2

**Product Use:** Grease

**Product Number(s):** 222231, 222232, 223407, 223408

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Avoid release to the environment.

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight
Distillates, hydrotreated middle	64742-46-7	10 - 30 %weight
Zinc dialkyldithiophosphate	68649-42-3	1 - 5 %weight
Molybdenum disulphide	1317-33-5	3 - 4 %weight
Phosphoric acid ester amine salt	Mixture	0.1 - 1 %weight

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause

respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Silver Shield, Nitrile Rubber, Viton, Neoprene.

**Respiratory Protection:** No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
-----------	--------	-----	------	---------	----------

Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Distillates, hydrotreated middle	Not Applicable	--	--	--	--
Zinc dialkyldithiophosphate	Not Applicable	--	--	--	--
Molybdenum disulphide	OSHA Z-1	5 mg/m3	--	--	--
Molybdenum disulphide	ACGIH	3 mg/m3	--	--	A3 as Mo
Phosphoric acid ester amine salt	Not Applicable	--	--	--	--

Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Grey

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg Maximum @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 Minimum

**Initial Boiling Point:** 315°C (599°F) Minimum

**Solubility:** Soluble in hydrocarbon solvents; insoluble in water.

**Freezing Point:** Not Applicable

**Melting Point:** 233°C (451.4°F) (Min)

**Density:** No data available

**Viscosity:** 22 mm<sup>2</sup>/s @ 100°C (212°F) Minimum

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** 150 °C (302 °F) (Estimated)

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides,

etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for similar materials.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for similar materials.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for similar materials.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists

(ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

**SECTION 15 REGULATORY INFORMATION**

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

The following components of this material are found on the regulatory lists indicated.

Zinc dialkyldithiophosphate	03, 06
Molybdenum disulphide	05, 06

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), IECSC (China), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan), KECI (Korea).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Grease)

**SECTION 16 OTHER INFORMATION****NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 3,8,16.**Revision Date:** OCTOBER 22, 2015**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



# DELO<sup>®</sup> STARPLEX<sup>®</sup> EP

## 1, 2

(formerly Starplex<sup>®</sup> EP)

---

### PRODUCT DESCRIPTION

Delo<sup>®</sup> Starplex<sup>®</sup> EP greases are water resistant, extreme pressure, heavy duty chassis and wheel bearing greases.

### CUSTOMER BENEFITS

Delo Starplex EP greases deliver value through:

- **Good water resistance** — Good resistance to wash out of bearings.
- **Good rust and corrosion protection**, even in wet conditions.
- **Extreme pressure protection.**
- **Protection against shock loading**, thus promoting long bearing life.
- **Outstanding film strength** and adhesive properties.
- **Good low temperature pumpability** — Easy handling in the container and grease dispensing equipment.

### FEATURES

Delo Starplex EP greases are water resistant, extreme pressure, heavy duty chassis and wheel bearing greases.

Delo Starplex EP greases are manufactured using highly refined, select high viscosity index base oils, and a lithium complex soap.

Delo Starplex EP greases are available in two grades:

- **NLGI grade 1** for easy pumpability at low ambient temperatures
- **NLGI grade 2** for use in normal ambient temperatures

Product(s) manufactured in the USA and Colombia.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

1 July 2017  
GR-117

© 2008–2017 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Starplex are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

### FUNCTIONS

Delo Starplex EP greases are formulated to:

- Protect bearings and other metal surfaces from corrosion when exposed to wet conditions.
- Resist water. These greases strongly resist being washed out of bearings.
- Retain their consistency under a wide range of service conditions.
- Provide outstanding film strength and adhesive properties. As a result, Starplex EP greases are particularly effective in providing low wear in shock load service.
- Operate effectively over a wide temperature range.

### APPLICATIONS

Delo Starplex EP greases are recommended for:

- use in the lubrication of trucks, tractors, and passenger cars. This includes ball joints, universal joints, chassis points, wheel bearings, water pumps, and fifth wheels.
- boat trailer wheel bearings
- high temperature disc brake bearing applications

Delo Starplex EP greases are approved for the NLGI Certification Mark GC-LB.



**TYPICAL TEST DATA**

<b>NLGI Grade</b>	<b>1</b>	<b>2</b>
<i>Product Number</i>	259119	259118
<i>SDS/MSDS Number</i>		
USA	44614	44614
Canada	44615	44615
Mexico	44616	44616
Colombia		33449
<i>Operating Temperature, °C(°F)</i>		
Minimum <sup>a</sup>	-40(-40)	-40(-40)
Maximum <sup>b</sup>	177(350)	177(350)
<i>Penetration, at 25°C(77°F)</i>		
Unworked	310	267
Worked	325	280
<i>Dropping Point, °C(°F)</i>	245(471)	255(491)
<i>Four-Ball</i>		
Weld Point, kg	315	315
Wear Scar Diameter, mm	0.45	0.45
<i>Timken OK Load, lb</i>	50	50
<i>Thickener, %</i>	9	12
Type	Lithium Complex	Lithium Complex
<i>Viscosity, Kinematic*</i>		
cSt at 40°C	226	226
cSt at 100°C	20.7	20.7
<i>Viscosity, Saybolt*</i>		
SUS at 100°F	1188	1188
SUS at 210°F	104.2	104.2
<i>Viscosity Index*</i>	107	107
<i>Flash Point, °C(°F)*</i>	274(525)	274(525)
<i>Pour Point, °C(°F)*</i>	-12(+10)	-12(+10)
<i>Texture</i>	Tacky	Tacky
<i>Color</i>	Red	Red

a Minimum operating temperature is the lowest temperature at which a grease, already in place, could be expected to provide lubrication. Most greases cannot be pumped at these minimum temperatures.

b Maximum operating temperature is the highest temperature at which the grease could be used with frequent (daily) relubrication.

\* Determined on mineral oil extracted by vacuum filtration.

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Delo Starplex EP 1, 2

**Product Use:** Grease

**Product Number(s):** 219951, 259118, 259119

**Company Identification**

Chevron Canada Limited

500 - 5th Ave. SW

Calgary, ALBERTA T2P 0L7

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).

---

Revision Number: 1

1 of 9

Delo Starplex EP 1, 2

Revision Date: October 30, 2017

SDS : 44615

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Avoid release to the environment (P273).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	1 - 5 %wt/wt
Phosphoric acid ester, amine salt	91745-46-9	0 - 1.5 %weight

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed

through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

#### **Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

### **SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

#### **PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Red

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** No data available

**Vapor Density (Air = 1):** No data available >1 Minimum

**Initial Boiling Point:** No data available 315°C (599°F) Minimum

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Specific Gravity:** 0.90 (Typical)

**Density:** 0.90 (Estimated) No data available

**Coefficient of Therm. Expansion / °F:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** 200 °C (392 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

Revision Number: 1

5 of 9

Delo Starplex EP 1, 2

Revision Date: October 30, 2017

SDS : 44615

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** Zinc (Temperatures >149 °F (65 °C)), Hydrogen Sulfide (Temperatures >149 °F (65 °C)), Alkyl Mercaptans (Elevated temperatures)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for similar materials.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for similar materials.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer

warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

### MOBILITY

No data available.

### PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

### POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous

Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: KECI (Korea).

## SECTION 16 OTHER INFORMATION

**REVISION STATEMENT:** SECTION 01 - Product Code(s) information was added.  
SECTION 05 - Special hazards arising from the substance or mixture information was modified.  
SECTION 06 - Environmental Precautions information was modified.  
SECTION 06 - Methods and Material for Containment and Cleaning Up information was added.  
SECTION 06 - Personal Precautions, Protective Equipment and Emergency Procedures information was added.  
SECTION 09 - Physical/Chemical Properties information was added.  
SECTION 11 - Additional Toxicology Information information was deleted.  
SECTION 15 - Chemical Inventories information was added.  
SECTION 15 - Chemical Inventories information was modified.

Revision Date: October 30, 2017

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**



# DELO<sup>®</sup> SYNTHETIC GREASE SF

---

## PRODUCT DESCRIPTION

Delo<sup>®</sup> Synthetic Grease SF is a high performance grease specifically engineered for trailer wheel-ends operating in a wide range of conditions.

## CUSTOMER BENEFITS

Delo Synthetic Grease SF delivers value through:

- **High temperature stability** up to 190°C (375°F)
- **Low temperature lubrication** down to -45°C (-50°F)
- **Excellent antiwear/low friction performance**
- **Extreme pressure load carrying capacity**
- **Rust protection**
- **Extended lubrication intervals**

## FEATURES

Delo Synthetic Grease SF is a high performance grease specifically engineered for trailer wheel-ends operating in a wide range of conditions.

Delo Synthetic Grease SF is manufactured using polyalphaolefin (PAO) synthetic base oil, a polyurea thickener, rust and oxidation inhibitors, extreme pressure additives, and a special combination of friction reducing agents. It is gold in color with a smooth, semifluid texture.

Delo Synthetic Grease SF is formulated to perform in demanding conditions of high and low temperatures. The polyurea thickener in Delo Synthetic Grease SF elevates the dropping point to 230°C (446°F). This high dropping point equates to excellent high temperature stability up to 190°C (375°F). In addition, the high viscosity index (VI) of the PAO synthetic base oil allows for excellent flow properties at low temperatures - allowing Delo Synthetic Grease SF to operate at temperatures as low as -45°C (-50°F).

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

12 June 2013  
GR-37

© 2007-2013 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Delo are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

## APPLICATIONS

**Trailer lubrication** — Delo Synthetic Grease SF is recommended for use in trailer axles. It flows smoothly and evenly at temperatures as low as -45°C (-50°F) and continues to lubricate efficiently at temperatures up to 190°C (375°F). It provides many advantages in trailer axle lubrication, compared to mineral oil-based grease, such as

- Excellent low temperature properties (i.e. lower starting torque).
- Oxidation resistance at high temperatures.
- Excellent antiwear/low friction performance throughout the operating temperature range.

**TYPICAL TEST DATA**

<b>NLGI Grade</b>	<b>Method</b>	<b>SF</b>
<i>Product Number</i>		235253
<i>SDS Number</i>		7750
Operating Temperature, °C(°F) Minimum <sup>a</sup> Maximum <sup>b</sup>		-45(-50) 190(375)
Penetration, at 25°C(77°F) Unworked Worked	ASTM D217	365 380
Dropping Point, °C(°F)	ASTM D2265	230(446)
Timken OK Load, lb	ASTM D2509	45
Thickener, % Type		9 Polyurea
Viscosity, Kinematic (Base Fluid) cSt at 40°C cSt at 100°C	ASTM D445	130 17.6
Viscosity, Saybolt (Base Fluid) SUS at 100°F SUS at 210°F	ASTM D445	603 88
Viscosity Index (Base Oil)	ASTM D2270	150
Bearing Rust Protection	ASTM D1743	Pass
Four-Ball Wear, 165°F, 1200 rpm, 40 kg Extreme Pressure Load Wear Index, kg Last Nonseizure Load, kg Weld Point, kg	ASTM D2266 ASTM D2596	0.34 50 126 200
Low Temperature Torque, -40°F, Nm Starting Running	ASTM D4693	1.4 0.9
U.S. Steel Pumpability, -40°F, Grams per minute at 50 psi 100 psi 150 psi	U.S. Steel	0.4 7.7 13.3
Texture		Smooth, Semifluid
Color		Gold

a Minimum operating temperature is the lowest temperature at which a grease, already in place, could be expected to provide lubrication. Most greases cannot be pumped at these minimum temperatures.

b Maximum operating temperature is the highest temperature at which the grease could be used with frequent (daily) relubrication.

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### GST Oil 32, 46, 68, 100

**Product Use:** Turbine Oil

**Product Number(s):** 253026, 253027, 253028, 253029, 254606, 254607, 254608, 853026, 853027, 853028, 853029

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an

electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial

values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

- Color:** Colorless to yellow
- Physical State:** Liquid
- Odor:** Petroleum odor
- Odor Threshold:** No data available
- pH:** Not Applicable
- Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)
- Vapor Density (Air = 1):** >1
- Initial Boiling Point:** 315°C (599°F)
- Solubility:** Soluble in hydrocarbons; insoluble in water
- Freezing Point:** Not Applicable
- Melting Point:** No data available
- Specific Gravity:** 0.86 - 0.87 @ 15.6°C (60.1°F)
- Density:** 0.86 kg/l @ 15.6°C (60.1°F) Minimum
- Viscosity:** 28.80 mm<sup>2</sup>/s - 100 mm<sup>2</sup>/s @ 40°C (104°F)
- Coefficient of Therm. Expansion / °F:** No data available
- Evaporation Rate:** No data available
- Decomposition temperature:** No data available
- Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

- Flammability (solid, gas):** No Data Available
  
- Flashpoint:** (Cleveland Open Cup) 190 °C (374 °F) Minimum
- Autoignition:** No data available
- Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

- Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
- Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- Incompatibility With Other Materials:** Not applicable
- Hazardous Decomposition Products:** None known (None expected)
- Hazardous Polymerization:** Hazardous polymerization will not occur.
- Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.  
The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.  
The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.SM.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR



## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required. All other components are listed or exempted from listing on EINECS.

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

## SECTION 16 OTHER INFORMATION

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** FEBRUARY 09, 2016

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency

SCBA - Self-Contained Breathing Apparatus	
---	--

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.
--

<p>The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use.</p> <p>This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.</p>
---



# GST<sup>®</sup> OIL

## 32, 46, 68, 100 & ISOCLEAN<sup>®</sup> Certified

### PRODUCT DESCRIPTION

GST<sup>®</sup> Oils are formulated with premium base oil technology designed to meet the critical demands of:



- non-gearred gas, steam, and hydroelectric turbine bearing lubrication
- reduction gear lubrication in marine operations

They are an excellent recommendation for many other industrial applications including air compression where R&O type oils are recommended. GST Oils are available as ISOCLEAN<sup>®</sup> Certified Lubricants, which have been certified to meet specified ISO Cleanliness standards at point of delivery using industry leading filtration and testing technology. ISOCLEAN Certified products are the first step for contamination control and maximizing component life.

### CUSTOMER BENEFITS

GST Oils deliver value through:

- **Exceptional oxidation stability** for long service life at elevated temperatures. Formulated with premium base oil technology and an ashless, zinc-free formulation.
- **Rust and corrosion protection**
- **High viscosity index** helps ensure minimum viscosity change when variations in temperature occur.
- **Minimum foam** helps prevent sump overflow or erratic governor operation.
- **Fast air release** minimizes possibility of pump cavitation in systems with high circulation rates and small reservoirs.
- **Exceptional thermal stability** minimizes deposit formation.

- **Rapid water separation** keeps water in oil to a minimum.
- **Hydraulic fluid service** — GST Oils 32, 46 and 68 are excellent hydraulic fluids in low pressure systems up to 1000 psi.
- **Air compressor** lubricant when OEM recommends R&O type oil.

### CUSTOMER BENEFITS ISOCLEAN CERTIFIED

GST Oil ISOCLEAN Certified Lubricants deliver value through:

- **Ready to use** — Enables users to meet stringent original equipment manufacturers' cleanliness standards for fill lubricants.
- **Flexibility** — ISO Cleanliness targets can be customized to fit your business application needs.
- **Peace of mind** — Each delivery of Chevron ISOCLEAN Certified Lubricant includes an ISOCLEAN Certificate of Analysis.
- **OE fluid cleanliness requirements** — Customized to meet specific equipment manufacturers' fluid cleanliness requirements.

### FEATURES

GST Oils are formulated with premium base oil technology and an ashless, zinc-free formulation that provides exceptional oxidation stability, water separability, and protection against rust and corrosion.



Higher temperatures in advanced gas and steam turbines require circulating system oil with exceptional high temperature stability. GST Oils have outstanding **thermal and oxidation stability**.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

1 July 2016  
IO-85

© 2007-2016 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark, GST and ISOCLEAN are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

Nonvolatile **oxidation inhibition** minimizes the evaporative loss of the inhibitors, a common problem with turbine oils where bearing temperatures are high and system capacities are limited. With retained oxidation resistance for long periods under high temperature conditions, GST® Oils will promote long oil service life and help minimize turbine down time.

**Corrosion inhibition** protects costly turbine shafts and gears from corrosion and rusting.

GST Oils have excellent demulsibility characteristics which allow these oils to maintain a high film strength coating on critical wear points of bearings and gear reducers and assure fast removal of water contamination.

**Foam inhibition** helps prevent sump overflow and erratic governor operation.

## APPLICATIONS

GST Oils are formulated to meet the critical demands of non-geared gas, steam, and hydroelectric turbine bearing lubrication, and reduction gear lubrication in marine operations. They are an excellent recommendation for many other industrial applications including air compression where R&O type oils are recommended.

The following viscosity grades are formulated to meet the specified OEM requirements:

### GST Oil 32

- meets and exceeds
  - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
  - **General Electric** GEK-32568j, GEK 28143A, GEK-46506D, GEK-27070
  - **Solar** ES 9 224 requirements for gas turbine oils
- meet
  - **MAG Cincinnati, Cincinnati Machine** P-38
- is approved by
  - **Alstom Power** HTGD 90117 (for non-geared turbines)
  - **Siemens** TLV 901305
  - **Siemens Westinghouse** M spec 55125Z3

### GST Oil 46

- meets
  - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
  - **MAG Cincinnati, Cincinnati Machine** P-55
  - **Solar** ES 9 224 requirements for gas turbine oils
- is approved by
  - **Alstom Power** HTGD 90117 (for non-geared turbines)
  - **Siemens** TLV 901305
- successfully used in some reactor coolant pump motor bearings.

### GST Oil 68

- meets
  - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
  - **MAG Cincinnati, Cincinnati Machine** P-54
- suitable for use in hydroelectric turbines, land and marine steam turbines, and associated reduction gears when OEM recommends R&O type oil.

### GST Oil 100

- meets
  - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
- suitable for use in hydroelectric turbines, land and marine steam turbines, and associated reduction gears when OEM recommends R&O type oil.

GST Oil 32, 46, 68, 100 and ISOCLEAN® Certified 32, 46, 68, 100 are registered by **NSF** and are acceptable as lubricants where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

Do not use in breathing air apparatus or medical equipment.

Consult with your Chevron Lubricant Representative or Chevron ISOCLEAN® Certified Lubricants Marketer to set specific ISO Cleanliness targets for your business application.

## TYPICAL TEST DATA

ISO Grade	32	46	68	100
<i>Product Number</i>	253026	253027	253028	253029
<i>Product Number ISOCLEAN Certified</i>	254606	254607	254608	278069
<i>SDS Number</i>	6710	6710	6710	6710
AGMA Grade	—	1	2	3
API Gravity	32.7	32.0	31.7	31.4
Viscosity, Kinematic cSt at 40°C cSt at 100°C	32.0 5.4	43.7 6.6	68.0 8.8	100.0 11.4
Viscosity, Saybolt SUS at 100°F SUS at 210°F	165 44.4	225 48.2	352 55.9	520 65.4
Viscosity Index	102	101	102	100
Flash Point, °C(°F)	222(432)	224(435)	245(473)	262(504)
Pour Point, °C(°F)	-36(-33)	-36(-33)	-33(-27)	-30(-22)
Oxidation Stability ASTM D943 <sup>a</sup> ASTM D2272 <sup>b</sup>	17,000 1700	12,000 1400	11,000 1400	11,000 1400

a Hours to 2.0 mg KOH/g acid number modified D943, allowed to run beyond 10,000 h.

b Minutes to 25 psi pressure drop.

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Havoline ATF MERCON V

**Product Use:** Automatic Transmission Fluid

**Product Number(s):** 226975

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Lubricating oils, hydrotreated C15-30, neutral oil-based	72623-86-0	20 - 40 %weight

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

#### Indication of any immediate medical attention and special treatment needed

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain.

Immediate treatment at a surgical emergency center is recommended.

## SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed. Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose

such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

No applicable occupational exposure limits exist for this material or its components. Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Red

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available



**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)  
**Vapor Density (Air = 1):** >1  
**Initial Boiling Point:** 315°C (599°F)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Specific Gravity:** 0.87 @ 15.6°C (60.1°F)  
**Density:** 7.19 lb/gal @ 15.6°C (60°F) (Typical)  
**Viscosity:** 6.80 cSt @ 100°C (212°F) (Min)  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 177 °C (351 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for similar materials or product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials or

product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

The product has not been tested. The statement has been derived from the properties of the individual components.



**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

**SECTION 15 REGULATORY INFORMATION**

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

- |                     |                      |
|---------------------|----------------------|
| 01-1=IARC Group 1   | 03=EPCRA 313         |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2B | 05=MA RTK            |

02=NTP Carcinogen

06=NJ RTK

07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: DSL (Canada), TSCA (United States).

One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required.

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Automatic transmission fluid)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 2,3,4,7,8,11,15,16

**Revision Date:** September 01, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on	OSHA - Occupational Safety and Health Administration

Cancer	
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**



# HAVOLINE<sup>®</sup> XTENDED LIFE ANTIFREEZE/COOLANT

## PRODUCT DESCRIPTION

Havoline<sup>®</sup> Xtended Life Antifreeze/Coolant is a single phase, ethylene glycol antifreeze/coolants based on an aliphatic corrosion inhibitor system available as a concentrate and a premix 50/50.

## CUSTOMER BENEFITS

Havoline Xtended Life Antifreeze/Coolant delivers value through:

- **OEM Approval** — Meets the requirements of Ford WSS-M97B44-D, GM 6277, MB 325.3 and Volkswagen TL 774F specifications.
- **Wide service application** — Recommended for use in Domestic, Asian and European automotive and passenger car diesel applications including newer hybrid vehicles.
- **Heat Transfer** — Improved heat transfer when compared to silicate containing antifreeze/coolant products.
- **Long Service Life** — 150,000 miles/240,000 km/5 years of cooling system protection.
- **Beneficial formulation** — Organic additive formulation that is free of silicate, nitrite, borate, phosphate, nitrate and amines and which allows longer service life.
- **Protection** — Outstanding high temperature protection of cooling systems metals including aluminum.
- **Water Pump Performance** — Compatible with water pump seal materials and minimizes formation of abrasive solids which can help extend water pump life.
- **Performance** — Superior protection at high operating temperatures. Reduces the occurrence of hard water scale.
- **Wide temperature application** — Protects against winter freeze up and minimizes chances of summer boil over.

- **Reduced Inventory** — Can be used in mixed fleet applications where both gasoline and passenger car diesel vehicles are present from various manufacturers.
- **Stability** — Can be stored for approximately 8 years in sealed containers without any effect on the product quality or performance.

## FEATURES

Havoline Xtended Life Antifreeze/Coolant is based on a patented aliphatic organic additive formulation that provides a service life of 150,000 miles/240,000 km/5 years and is approved under GM 6277 meeting the GM DEX-COOL<sup>®</sup> requirements.<sup>1</sup>

The main corrosion inhibitors in Havoline Xtended Life Antifreeze/Coolant have been shown to remain above 95% of their original concentration with proper top off after 150,000 miles/240,000 km in automobiles. This allows much longer intervals between coolant change-outs.

Havoline Xtended Life Antifreeze/Coolant has been formulated without inhibitors such as silicates that have been shown to be abrasive to water pump seals. In comparison taxi field tests versus conventional coolants, Havoline Xtended Life Antifreeze/Coolant reduced the need to replace water pumps during the 100,000 mile/160,900 km test. In addition to fleet tests, this product has also been tested by a major manufacturer of water pump seals and has been found to be more compatible with the seals than other coolants previously tested.

*Note: These products are not to be used to protect the inside of potable water systems against freezing.*

## APPLICATIONS

Havoline<sup>®</sup> Xtended Life Antifreeze/Coolant meets the specifications of:

<sup>1</sup> DEX-COOL is a registered trademark of General Motors Corporation.

Product(s) manufactured in the USA and Colombia.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

23 May 2016  
COOL-270

© 2009-2016 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Havoline are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

- **ASTM** D3306
- **Ford** WSS-M97B44-D
- **GM** 6277
- **MB** 325.3
- **VW** TL 774F

Havoline Xtended Life Antifreeze/Coolant is recommended for use in:

- General Motors vehicles post 1995
- Chrysler vehicles post 2001
- Ford Vehicles post 2003
- European gasoline and diesel automobiles
- Japanese gasoline automobiles, SUVs and Pickup trucks
- Korean gasoline automobiles and SUVs

It is recommended that this product not be diluted with other coolant formulations by more than 25% in order to maintain performance claims.

### PRODUCT DILUTION AND BOIL OVER PROTECTION RECOMMENDATIONS FOR HAVOLINE XTENDED LIFE ANTIFREEZE/COOLANT - CONCENTRATE

Boiling Protection, °F/°C (using a 15 lb pressure cap) 50% 1:1 (1 part antifreeze/1 part water)	265/129
Freezing Protection, °F/°C 40% 2:3 (2 parts antifreeze/3 parts water) 50% 1:1 (1 part antifreeze/1 part water) 60% 3:2 (3 parts antifreeze/2 parts water)	-12/-24 -34/-37 -62/-52

#### Notes

- Product concentrates should be mixed before use or dilution.
- Havoline Xtended Life Antifreeze/Coolant - Premixed 50/50 should be used as purchased. No dilution is recommended.
- For maximum protection against freezing in extremely cold areas, a 60 percent solution (3 parts antifreeze/2 parts water) can be used. Concentrations greater than 67 percent are not recommended.
- Always dispose of used coolant in accordance with all local, state, and federal guidelines.

### PRODUCT REFERENCE

**Note:** Bitterant is a flavor aversive that may help reduce the accidental ingestion of this product. These products contain bitterant.

Product Number 236542  
SDS Number USA 38248  
MSDS Number Colombia 38264  
Havoline Xtended Life Antifreeze/Coolant - Concentrate

Product Number 236543  
SDS Number USA 38257  
MSDS Number Colombia 38260  
Havoline Xtended Life Antifreeze/Coolant - Premixed 50/50

### TYPICAL TEST DATA

#### Havoline Xtended Life Antifreeze/Coolant

Appearance/Color	Orange
Specific gravity 15/15°C	1.130
Freezing point, °C <sup>a</sup> , ASTM D1177	-37
pH <sup>b</sup> , ASTM D1287	8.5
Reserve alkalinity <sup>c</sup> , ASTM D1121	6.0
Silicate, % <sup>d</sup>	None

- a 50 vol % aqueous solution.
- b 1:2 dilution with water.
- c As received.
- d As anhydrous alkali metasilicate.

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

**Havoline® Xtended Life Antifreeze/Coolant  
ASTM D1384 Glassware Corrosion Test**

	ASTM Limit	Weight loss, mg per coupon <sup>a</sup>
Copper	10 max	2
Solder	30 max	-2
Brass	10 max	2
Steel	10 max	-1
Iron	10 max	-3
Aluminum	30 max	4

a Negative indicates net gain.

**HANDLING PRACTICES**

The primary limiting factor in the shelf life of a coolant is silicate instability. Since silicate will eventually polymerize to silicate gel, traditional coolants have a shelf life of about 18 months. Havoline Xtended Life Antifreeze/Coolant is silicate-free and can be stored for at least 8 years, provided the container remains sealed.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Havoline Xtended Life Antifreeze/Coolant - Concentrate

**Product Use:** Antifreeze/Coolant

**Product Number(s):** 236542

**Company Identification**

Chevron Canada Limited

500 - 5th Ave. SW

Calgary, ALBERTA T2P 0L7

Canada

www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com

Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Target organ toxicant (repeated exposure): Category 2. Reproductive toxicant (developmental): Category 2. Acute oral toxicant: Category 4.



**Signal Word:** Warning

---

**Health Hazards:** Suspected of damaging the unborn child (H361D). Harmful if swallowed (H302).

**Target Organs:**

May cause damage to organs (Kidney) through prolonged or repeated exposure (H373).

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Do not handle until all safety precautions have been read and understood (P202). Obtain special instructions before use (P201). Wash thoroughly after handling (P264). Do not eat, drink or smoke when using this product (P270). Do not breathe dust/fume/gas/mist/vapours/spray (P260). Wear protective gloves/protective clothing/eye protection/face protection (P280).

**Response:** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell (P301+P312). Get medical advice/attention if you feel unwell (P314). Rinse mouth (P330). IF exposed or concerned: Get medical advice/attention (P308+P313).

**Storage:** Store locked up (P405).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Ethylene glycol	107-21-1	80 - 98 %wt/wt
Potassium 2-ethylhexanoate	3164-85-0	3 - < 5 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.



**Ingestion:** If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** May be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

**DELAYED OR OTHER HEALTH EFFECTS:**

**Reproduction and Birth Defects:** Contains material that may cause harm to the unborn child if swallowed based on animal data.

**Target Organs:** Contains material that may cause damage to the following organ(s) following repeated inhalation at concentrations above the recommended exposure limit: Kidney See Section 11 for additional information. Risk depends on duration and level of exposure.

**Indication of any immediate medical attention and special treatment needed** Not Applicable

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames. Dry Chemical, CO2, AFFF Foam or alcohol resistant foam.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Potassium.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent

further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Do not taste or swallow antifreeze or solution. Keep out of the reach of children and animals.

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe vapor or fumes. Wash thoroughly after handling. Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**General Storage Information:** Do not store in open or unlabeled containers.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits. Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear

safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Natural rubber, Neoprene, Nitrile Rubber, Polyvinyl Chloride (PVC or Vinyl).

**Respiratory Protection:** Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapors, Dusts and Mists.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Ethylene glycol	ACGIH	--	--	100 mg/m <sup>3</sup>	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Orange

**Physical State:** Liquid

**Odor:** Faint or Mild

**Odor Threshold:** No data available

**pH:** 8 - 8.60 (Approximate)

**Vapor Pressure:** No data available

**Vapor Density (Air = 1):** 1

**Initial Boiling Point:** 180°C (356°F) (Estimated)

**Solubility:** Soluble in water.

**Freezing Point:** -18°C (-0.4°F) (Typical)

**Melting Point:** Not Applicable

**Specific Gravity:** 1.12 @ 15.6°C (60.1°F)

**Viscosity:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**



**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Pensky-Martens Closed Cup) 122 °C (252 °F) (Estimated)

**Autoignition:** 400 °C (752 °F)

**Flammability (Explosive) Limits (% by volume in air):** Lower: No data available Upper: No data available

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** Ketones (Elevated temperatures), Aldehydes (Elevated temperatures)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate (oral):** 1678 mg/kg

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components

---

or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty in breathing and decreased urine output. When EG was heated above the boiling point of water, vapors formed which reportedly caused unconsciousness, increased lymphocyte count, and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.

2-Ethylhexanoic acid (2-EXA) caused an increase in liver size and enzyme levels when repeatedly administered to rats via the diet. When administered to pregnant rats by gavage or in drinking water, 2-EXA caused teratogenicity (birth defects) and delayed postnatal development of the pups. Additionally, 2-EXA impaired female fertility in rats. Birth defects were seen in the offspring of mice who were administered sodium 2-ethylhexanoate via intraperitoneal injection during pregnancy.

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No data available



## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by USEPA under RCRA (40CFR261), Environment Canada, or other State, Provincial, and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER TDG REGULATIONS

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** Anti-freeze Preparations, Proprietary; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** PROPRIETARY ANTIFREEZE PREPARATION IN NON-BULK PACKAGING; NOT REGULATED FOR TRANSPORT UNDER 49 CFR

Additional Information: Bulk shipments containing a reportable quantity (RQ, 5000 pounds or more) of ethylene glycol in a single packaging are transported as hazardous material. The shipping description is: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHYLENE GLYCOL CONTAINS BITTERANT), 9, III, RQ (ETHYLENE GLYCOL)

## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B  
35=WHMIS IDL

The following components of this material are found on the regulatory lists indicated.

Ethylene glycol 35

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), IECSC (China), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan), KECI (Korea).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** FEBRUARY 18, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Chevron Hydraulic Oil 5606A

**Product Use:** Hydraulic Oil  
**Product Number(s):** 247707  
**Company Identification**  
Chevron Canada Limited  
1050 West Pender  
Vancouver, BC V6E 3T4  
Canada  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Flammable liquid: Category 4. Aspiration toxicant: Category 1. Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.



**Signal Word:** Danger

**Physical Hazards:** Combustible liquid (H227).

**Health Hazards:** May be fatal if swallowed and enters airways (H304).

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Keep away from heat, sparks, open flames and other ignition sources. No smoking (P210). Avoid release to the environment (P273). Wear protective gloves/protective clothing/eye protection/face protection (P280).

**Response:** IF SWALLOWED: Immediately call a POISON CENTER/doctor (P301+P310). Do NOT induce vomiting (P331). In case of fire: Use media specified in the SDS to extinguish (P370+P378).

**Storage:** Store locked up (P405). Store in a well-ventilated place (P403).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Distillates, hydrotreated light	64742-47-8	70 - 80 %weight
Highly refined mineral oil (C15 - C50)	Mixture	10 - 20 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Skin contact may cause drying or defatting of the skin. Contact with the skin is not expected to cause an allergic skin response. Symptoms may include pain, itching, discoloration, swelling, and blistering. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Highly toxic; may be fatal if swallowed. Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis. In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs). See Section 7 for proper handling and storage.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds

will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 29C (85F).

DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Wash thoroughly after handling.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**General Storage Information:** DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces . USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted.

Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required. Air-Purifying Respirator for Organic Vapors.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Distillates, hydrotreated light	ACGIH	200 mg/m3	--	--	Skin A3
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Red

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available  
**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg (Estimated) @ 37.8 °C (100 °F)  
**Vapor Density (Air = 1):** >4  
**Initial Boiling Point:** 207.2°C (405°F)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Melting Point:** No data available  
**Specific Gravity:** 0.86 - 0.90 @ 15°C (59°F)  
**Density:** 0.86 kg/l - 0.90 kg/l @ 15°C (59°F)  
**Viscosity:** 13.20 mm<sup>2</sup>/s @ 40°C (104°F) Minimum  
**Coefficient of Therm. Expansion / °F:** Not Applicable  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

#### **FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 80 °C (176 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

### **SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

### **SECTION 11 TOXICOLOGICAL INFORMATION**

#### **Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

#### **ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## **SECTION 12 ECOLOGICAL INFORMATION**

### **ECOTOXICITY**

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

### **MOBILITY**

No data available.

### **PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The product has not been tested. The statement

has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS UNDER TRANSPORT CANADA

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS UNDER THE ICAO TI / IATA DGR CODE

**DOT Shipping Description:** UN1268, PETROLEUM PRODUCTS, N.O.S., COMBUSTIBLE LIQUID, III ; ADDITIONAL INFORMATION: NON-BULK PACKAGES ARE NOT REGULATED IN THE USA. SEE 173.150 (F) FOR SPECIAL PROVISIONS FOR VESSEL AND AIRCRAFT

**SECTION 15 REGULATORY INFORMATION**

REGULATORY LISTS SEARCHED:

- |                     |                      |
|---------------------|----------------------|
| 01-1=IARC Group 1   | 03=EPCRA 313         |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2B | 05=MA RTK            |
| 02=NTP Carcinogen   | 06=NJ RTK            |
|                     | 07=PA RTK            |

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** FEBRUARY 11, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**



# MEROPA®

## 68, 100, 150, 220, 320, 460, 680, 1000, 1500

### PRODUCT DESCRIPTION

Meropa® gear lubricants are premium quality extreme pressure gear oils with excellent load carrying capacity, water demulsibility, oxidation stability, and corrosion protection.

### CUSTOMER BENEFITS

Meropa gear lubricants deliver value through:

- **Gear set efficiencies** — High thermal stability EP system helps maintain clean gear and bearing surfaces, minimizing deposits which interfere with effective lubrication. High oxidation stability limits in-service viscosity increases, which can lead to energy losses.
- **Long equipment life** — Effective EP system forms a protective film in areas of metal-to-metal contact, minimizing wear rates and maintaining efficient transfer of power. Good water separation and effective rust inhibitors protect surfaces against rust and corrosion. High thermal stability additive system minimizes the formation of high temperature compounds which can be corrosive to bearing materials. The effective corrosion inhibitor provides additional protection for metal components.
- **Long oil life** — Effective oxidation inhibitors and copper passivator minimize oil oxidation, limiting viscosity increase and promoting long drain intervals.

### FEATURES

Meropa gear lubricants are high performance, multipurpose gear lubricants designed for many types of industrial gear lubrication services where loads and shock loadings are high.



### APPLICATIONS

Meropa gear lubricants are recommended for:

- industrial enclosed gearing where an AGMA extreme pressure lubricant is specified
- bath, splash, circulating, or spray mist lubrication as applicable to the proper viscosity grade
- general industrial plant lubrication where the performance properties of an AGMA extreme pressure lubricant is required

Meropa gear lubricants meet the requirements of:

- **AGMA EP 9005-E02** (ISO 68, 100, 150, 220, 320, 460, 680, 1000, 1500)
- **DIN 51517-3** (CLP)
- **MAG Cincinnati, Cincinnati Machine P-63** (ISO 68), P-76 (ISO 100), P-77 (ISO 150), P-74 (ISO 220), P-59 (ISO 320), P-35 (ISO 460), P-78 (ISO 1000)
- **U.S. Steel 224 Specification** (ISO 220, 320, 460, 680)

Meropa gear lubricants (ISO 68, 100, 150, 220, 320, 460) are suitable for use in **Bijur** oil application equipment.

Meropa gear lubricants have a typical sulfur-phosphorus odor characteristic of industrial gear oils. A ventilated environment is recommended during use.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

1 July 2016  
GL-37

© 2008-2016 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Meropa are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

**TYPICAL TEST DATA**

<b>ISO Grade</b>	<b>68</b>	<b>100</b>	<b>150</b>	<b>220</b>	<b>320</b>	<b>460</b>	<b>680</b>
<i>Product Number</i>	277209	277219	277210	277211	277212	277213	277214
<i>SDS Number</i>	23551	23551	23551	23551	23551	23551	23551
AGMA Grade	2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	8 EP
API Gravity	31.0	30.6	29.7	28.4	27.3	26.3	26.0
Viscosity, Kinematic cSt at 40°C cSt at 100°C	64.6 8.6	95.0 11.0	142 14.4	209 18.8	304 23.2	437 29.4	646 39.8
Viscosity, Saybolt SUS at 100°F SUS at 210°F	334 55	495 64	744 77	1102 96	1618 116	2341 144	3467 194
Viscosity Index	104	100	100	100	95	95	100
Flash Point, °C(°F)	225(437)	225(437)	240(464)	245(473)	245(473)	245(473)	260(500)
Pour Point, °C(°F)	-33(-27)	-30(-22)	-30(-22)	-21(-5)	-18(0)	-15(+5)	-12(+10)
Timken OK Load, lb	65	65	65	65	65	65	65
FZG Pass Stage, ASTM D5182	12	12	12	12	12	12	>12

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

1 July 2016  
GL-37

**TYPICAL TEST DATA**

<b>ISO Grade</b>	<b>1000</b>	<b>1500</b>
<i>Product Number</i>	277215	277216
<i>SDS Number</i>	23551	23551
AGMA Grade	8A EP	9 EP
API Gravity	25.9	25.7
Viscosity, Kinematic cSt at 40°C cSt at 100°C	950 53.9	1425 74.0
Viscosity, Saybolt SUS at 100°F SUS at 210°F	5115 262	7699 359
Viscosity Index	107	114
Flash Point, °C(°F)	260(500)	260(500)
Pour Point, °C(°F)	-12(+10)	-12(+10)
Timken OK Load, lb	65	65
FZG Pass Stage, ASTM D5182	>12	>12

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

1 July 2016  
GL-37

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

1 July 2016  
GL-37

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**Meropa 68, 100, 150, 220, 320, 460, 680, 1000, 1500**

**Product Use:** Industrial Gear Lubricant

**Product Number(s):** 219506, 219510, 219515, 219522, 219532, 219546, 219568, 277209, 277210, 277211, 277212, 277213, 277214, 277215, 277216, 277219, 278039, 278040, 278041, 278042, 278043, 278044, 278047

**Synonyms:** ISOCLEAN Certified, Meropa 68, 100, 150, 220, 320, 460, 680

### Company Identification

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

### Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

### Product Information

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

HAZARDS NOT OTHERWISE CLASSIFIED: Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed** Not Applicable

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish

flames.

#### **PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

### **SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

### **SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **GENERAL CONSIDERATIONS:**

Revision Number: 6

Revision Date: January 26, 2017

3 of 9

Meropa 68, 100, 150, 220, 320, 460,  
680, 1000, 1500

SDS: 23551

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m <sup>3</sup>	--	-	-
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	-	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1  
**Initial Boiling Point:** No data available  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Melting Point:** No data available  
**Density:** 0.87 kg/l - 0.89 kg/l @ 15°C (59°F)  
**Viscosity:** 175 mm<sup>2</sup>/s - 1100 mm<sup>2</sup>/s @ 40°C (104°F)  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 215 °C (419 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

### SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

### SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

### SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

#### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Gear oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16

**Revision Date:** January 26, 2017

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001

Bollinger Canyon Road, San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Rando HDZ 22, 32, 46, 68, 100

**Product Use:** Hydraulic Oil

**Product Number(s):** 254609, 254610, 254611, 273260, 273261, 273262, 273263, 273264, 278065

**Synonyms:** Rando HDZ 22, 32, 46, 68 ISOCLEAN Certified

**Company Identification**

Chevron Canada Limited  
1050 West Pender  
Vancouver, BC V6E 3T4  
Canada  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS

Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a

fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.



**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and Care of Respirators.

<b>SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES</b>
---

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Colorless to yellow

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Density:** 0.86 kg/l @ 15°C (59°F)

**Coefficient of Therm. Expansion / °F:** Not Applicable

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 150 °C (302 °F) Minimum  
**Autoignition:** No data available  
**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.  
**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**Incompatibility With Other Materials:** Not applicable  
**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.  
**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been

listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER TDG REGULATIONS

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS

DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

DOT Shipping Description: PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

REGULATORY LISTS SEARCHED:

- 01-1=IARC Group 1
- 01-2A=IARC Group 2A
- 01-2B=IARC Group 2B
- 02=NTP Carcinogen
- 03=EPCRA 313
- 04=CA Proposition 65
- 05=MA RTK
- 06=NJ RTK
- 07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16.

**Revision Date:** AUGUST 14, 2015

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility**

**for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Material Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Starplex EP 1, 2

**Product Use:** Grease  
**Product Number(s):** 219579, 277110, 277111

**Company Identification**  
Chevron Canada Limited  
1050 West Pender  
Vancouver, BC V6E 3T4  
Canada  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: (800) LUBE TEK

**SECTION 2 HAZARDS IDENTIFICATION**

\*\*\*\*\*

### **EMERGENCY OVERVIEW**

- HARMFUL TO AQUATIC ORGANISMS. MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

\*\*\*\*\*

### **IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.  
**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.  
**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause

respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	1 - < 2.5 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

**SECTION 4 FIRST AID MEASURES**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES:**

**Flashpoint:** (Cleveland Open Cup) 200 °C (392 °F) (Estimated)

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Keep out of the reach of children. Wash thoroughly after handling.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and Care of Respirators.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Red

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg Maximum @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 Minimum

**Boiling Point:** 315°C (599°F) Minimum

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Specific Gravity:** 0.9 @ 15.6°C (60.1°F) (Typical)

**Density:** 0.9 (Typical)

**Viscosity:** 18 mm<sup>2</sup>/s @ 100°C (212°F) Minimum

**Evaporation Rate:** No data available

**Odor Threshold:** No data available

**Coefficient of Water/Oil Distribution:** No data available

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

## IMMEDIATE HEALTH EFFECTS

**Eye Irritation:** The eye irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Irritation:** The skin irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for similar materials or product components.

**Acute Dermal Toxicity:** LD50: >5g/kg (rabbit). The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** LD50: >5 g/kg (rat) The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components. For additional information on the acute toxicity of the components, call the technical information center.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.

### ENVIRONMENTAL FATE

**Ready Biodegradability:** This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TDG REGULATIONS

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B  
35=WHMIS IDL

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**WHMIS CLASSIFICATION:**

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations. (See Hazardous Products Act (HPA), R.S.C. 1985, c.H-3,s.2).

**MSDS PREPARATION:**

This Material Safety Data Sheet has been prepared by the Toxicology and Health Risk Assessment Unit, ERTC, P.O. Box 1627, Richmond, CA 94804, (888)676-6183.

**Revision Date:** SEPTEMBER 18, 2014

**SECTION 16 OTHER INFORMATION**

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**LABEL RECOMMENDATION:**

Label Category : GREASE 1 - GRS1

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:  
16

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Multifak OEM Grease EP 2

**Product Use:** Grease  
**Product Number(s):** 293034  
**Company Identification**  
Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS:**

---

**Prevention:** Avoid release to the environment.

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 98 %weight
Zinc dialkyldithiophosphate	68649-42-3	0.1 - < 1.5 %weight
Phosphoric acid ester, amine salt	Mixture	0.1 - < 0.5 %weight

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an

electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Silver Shield, Nitrile Rubber, Neoprene.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--
Highly refined mineral oil (C15 -	ACGIH	5 mg/m3	10 mg/m3	--	--

C50)					
Zinc dialkyldithiophosphate	Not Applicable	--	--	--	--
Phosphoric acid ester, amine salt	Not Applicable	--	--	--	--

Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Amber

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg Maximum @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 Minimum

**Initial Boiling Point:** 260°C (500°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** No data available

**Melting Point:** 166°C (330.8°F) (Min)

**Specific Gravity:** 1 @ 20°C (68°F) / 20°C (68°F) (Estimated)

**Density:** No data available

**Viscosity:** 150 mm<sup>2</sup>/s @ 40°C (104°F) (Typical)

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 200 °C (392 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for similar materials.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for similar materials.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

---

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**

Not applicable



## SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

The following components of this material are found on the regulatory lists indicated.

Zinc dialkyldithiophosphate 06

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

### NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Grease)

## SECTION 16 OTHER INFORMATION

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 15,16  
**Revision Date:** FEBRUARY 17, 2016

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**



# DELO<sup>®</sup> 400 XLE

## SAE 10W-30 (Synblend)



### PRODUCT DESCRIPTION

“Delo. Let’s go further.<sup>®</sup>”

Delo<sup>®</sup> 400 XLE SAE 10W-30 with ISOSYN<sup>®</sup> Advanced Technology is a premium synthetic blend fuel economy and mixed fleet engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API CK-4, API SN or API SN PLUS service category and SAE 10W-30 viscosity grade are recommended.

### CUSTOMER BENEFITS

Delo 400 XLE SAE 10W-30 (Synblend) with ISOSYN Advanced Technology is an API CK-4 heavy duty engine oil specifically formulated for on-highway applications, including 2017 greenhouse gas (GHG 17) compliant diesel engines with lower CO<sub>2</sub> emissions, and 2010 compliant low emission diesel engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) systems calling for SAE 10W-30 heavy duty engine oil.

Delo 400 XLE SAE 10W-30 with ISOSYN Advanced Technology is also recommended for off-highway applications when SAE 10W-30 viscosity grade is required. It is formulated for newer engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) systems. These newer engines generally meet Tier IV (2014) emissions requirements.

It is fully compatible with previous engine models and previous API Oil Service Categories.

Delo 400 XLE SAE 10W-30 delivers value through:

- **Improved Fuel Efficiency** — Up to 1% improvement vs. SAE 15W-40 oils in Class 8 diesel engine bench testing.

- **Better Low Temperature Pumpability** — Improved flow rate and pumpability versus SAE 15W-40 oils.
- **Exceptional Deposit Control** — Provides high performance piston deposit control and turbocharger protection due to its superb oxidation performance. Its high performing detergent and dispersant additives allows for extended diesel engine component protection.
- **Minimized Operating Costs** — Exceptional soot dispersancy and wear control. Cylinders, pistons, rings, and valve train components are well protected against wear and corrosion, providing optimum service life and minimal maintenance. Contributes to maximum vehicle utilization and minimal downtime.
- **Excellent Emission Control System Life** — Provides optimum Diesel Particulate Filter (DPF) life for minimal downtime and cleaning, thus managing your maintenance costs.
- **Managed Inventory Costs** — Backwards compatible with previous API Oil Service Categories. Suitable for use in four-stroke gasoline and naturally aspirated turbocharged and modern electronically controlled/low emission diesel engines calling for an SAE 10W-30 heavy duty engine oil. Allows users with a wide mix of engine brands to enjoy simplified inventory and dispensing systems that may contribute to saving money, space and handling time.
- **Warranty Plus Protection** — Bumper-to-bumper warranty protection from the engine to the drive train. Payment for Chevron Lubricant-related damage to your equipment, including parts and labor.<sup>1</sup> Problem resolution and technical advice from Chevron’s lubrication experts.

<sup>1</sup> See Warranty Plus for details and restrictions.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

21 May 2018  
HDMO-53

© 2013-2018 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark, Delo, Delo. Let’s go further., ISOCLEAN, ISOSYN and the ISOSYN logo are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

- **Access to Chevron's Lubrication and Industry Knowledge** — Helps to maximize your bottom line business results.

## FEATURES

Delo® 400 XLE SAE 10W-30 with ISOSYN® Advanced Technology is formulated using advanced additive technology to provide outstanding protection and improved fuel efficiency for on highway applications including 2010 compliant engines.

Delo 400 XLE SAE 10W-30 is formulated with ISOSYN Advanced Technology, which is a combination of Chevron's industry-leading formulating expertise with unique, high performance additive chemistry to help extend the durability of critical engine parts.

## ISOSYN ADVANCED TECHNOLOGY

ISOSYN Advanced Technology is the combination of Chevron's outstanding formulating expertise, unique high performance additive chemistry and premium base oils that helps extend the durability of critical diesel engine parts.

Delo 400 products formulated with ISOSYN Advanced Technology can provide improved engine longevity, extended oil drain performance, and excellent diesel component parts protection, helping to extend vehicle life and minimize total cost of ownership when compared with previous generation Chevron HDMO formulations.

ISOSYN Advanced Technology benefits customers by helping to provide:

- Up to 35% improved oil oxidation control\*
- Up to 68% improved wear protection\*
- Up to 64% improved piston deposit control\*

\*Results will vary based on the Delo 400 product, operating conditions, and engine types. Always follow OEM recommendations and utilize used oil analysis testing when extending oil drain intervals.



## FUNCTIONS

Delo 400 XLE SAE 10W-30 with ISOSYN Advanced Technology helps to keep rings clean and free for maximum combustion pressure and to provide minimal wear. It minimizes valve and piston crown land deposits, thus managing oil consumption. Its high level of ashless dispersants keeps fuel soot in suspension and thus helps to avoid filter plugging, heavy cylinder head sludge, abrasive polishing wear, high viscosity increase, and oil gelling. These problems can result in excessive engine wear and bearing failure on startup, without prior indication to the operator.

Specially selected oxidation inhibitors control oxidation, sludge, and undue thickening. Its unique blend of extreme pressure antiwear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication. A specially selected viscosity index improver ensures easy flow at low temperatures and excellent film protection in hot engine areas. A defoaming additive protects against air entrapment.

The combination of premium dispersant additives and ISOSYN Advanced Technology allows Delo 400 XLE SAE 10W-30 to effectively disperse soot and keep it in suspension. This minimizes the risk of valve train wear and filter plugging.

## Applications

Delo 400 XLE SAE 10W-30 with ISOSYN Advanced Technology is a fuel economy and mixed fleet motor oil recommended for naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API CK-4, API SN or API SN PLUS service categories and SAE 10W-30 viscosity grade are recommended. It is formulated for engines operating under severe service and a wide range of climatic conditions.

Excellent performance in new advanced engines developed to meet the latest emissions and reliability standards and in engines equipped with features like four-valve heads, super-charging, turbo-charging, direct injection, higher power density, intercooling, full electronic management of fuel and emissions systems, exhaust selective catalytic reduction, exhaust gas recirculation, and exhaust particulate filters.

Delo 400 XLE SAE 10W-30 with ISOSYN Advanced Technology is formulated for exceptional performance with ultra low sulfur diesel (ULSD) and other low sulfur diesel fuels.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

This product is recommended for use in:

- Today's most modern on highway low emission designs as well as some older engines.
- Today's most modern off highway engines where an SAE 10W-30 viscosity grade is recommended including those adapted for the most stringent emissions standards in construction, agriculture, marine, and mining applications.
- Excellent performance in Auxiliary Power Units (APUs) found on trailer refrigeration (refer) units or on truck tractors to help reduce main engine idle.

**Delo® 400 XLE SAE 10W-30 is approved for:**

- **API Service Categories** CK-4, CJ-4, CI-4, CI-4 PLUS
- **Cummins** CES 20086
- **Daimler MB-Approval** 228.31
- **Daimler MB-Approval** 228.51
- **Detroit Fluids Specification (DFS)** 93K222
- **DEUTZ** DQC III-10 LA
- **Mack** EOS 4.5
- **MTU** Category 2.1
- **Renault** VI RLD-4
- **Volvo** VDS-4.5

**Delo® 400 XLE SAE 10W-30 is recommended for:**

- **ACEA** E6/E9
- **API Service Category** SN PLUS
- **Caterpillar** ECF-3
- **JASO** DH-2
- **MAN** M 3575

**TYPICAL TEST DATA**

SAE Grade	10W-30
Product Number	257000
SDS Number	
U.S.	42039
Canada	42040
Mexico	42041
Density at 15°C, kg/L	0.868
Viscosity, Kinematic	
mm <sup>2</sup> /s at 40°C	81
mm <sup>2</sup> /s at 100°C	11.9
Viscosity, Cold Crank, °C/mPa.s	-25/6300
Viscosity, MRV, °C/mPa.s	-30/20,400
Viscosity Index	142
Flash Point, °C(°F)	234(453)
Pour Point, °C(°F)	-46(-51)
Sulfated Ash, mass %	0.98
Base Number, mgKOH/g, ASTM D2896	10.3
Phosphorus, mass %	0.076
Sulfur, mass %	0.27
Zinc, mass %	0.082

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

21 May 2018  
HDMO-53



# URSA<sup>®</sup> SUPER PLUS EC

## SAE 10W-30

---

### PRODUCT DESCRIPTION

Ursa<sup>®</sup> Super Plus EC SAE 10W-30 is a heavy duty engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines in which the API CK-4 service category and SAE 10W-30 viscosity grade are recommended.

### CUSTOMER BENEFITS

Ursa Super Plus EC SAE 10W-30 is an API CK-4 heavy duty engine oil specifically formulated for 2017 greenhouse gas (GHG 17) compliant diesel engines designed to meet lower CO<sub>2</sub> emissions and improved fuel economy, in addition to 2010 compliant low emission diesel engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) systems. It is fully compatible with previous engine models and previous API Oil Service Categories.

Ursa Super Plus EC SAE 10W-30 delivers value through:

- **Good Engine Protection** — Delivers soot dispersancy and wear control. Cylinders, pistons, rings, and valve train components are well protected against wear and corrosion, providing long engine service life and minimal maintenance. Contributes to optimal vehicle utilization and minimal downtime.
- **Appropriate Emission Control System Life** — Helps protect Diesel Particulate Filters (DPF) for minimal downtime and cleaning, thus managing maintenance costs.
- **Managed Inventory Costs** — Backward compatible with all previous API Oil Service Categories and engine models. Good for services in naturally aspirated turbocharged and modern electronically controlled/low emission diesel engines calling for an SAE 10W-30 heavy duty engine oil.

- **Minimized Operating Costs** — Provides up to 0.7% improved fuel economy performance versus SAE 15W-40 engine oil in Class 8 trucks.<sup>1</sup>
- **Access to Chevron's Lubrication and Industry Knowledge** — Helps maximize your bottom line business results.

### FEATURES

Ursa Super Plus EC SAE 10W-30 is a market general heavy duty engine oil formulated to provide appropriate protection in normal operating conditions. It is designed to be a cost-effective formulation for multiple types of applications.

### APPLICATIONS

Ursa Super Plus EC SAE 10W-30 is a heavy duty engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines in which the API CK-4 service category and SAE 10W-30 viscosity grade are recommended. It is formulated for engines operating under severe service and a wide range of climatic conditions.

This product is recommended for use in on-highway diesel engines that require API CK-4 service category and allow the use of an SAE 10W-30 viscosity grade. It can also be used in cold weather environments to facilitate engine start up performance.

---

<sup>1</sup> Fuel Economy comparison to SAE 15W-40 engine oils based on SAE J1321 track testing for Class 6 trucks and based on Volvo D12D engine testing for Class 8 trucks.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

6 March 2017  
HDMO-92

© 2014-2017 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Ursa are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

**Ursa Super Plus EC SAE 10W-30 is approved for:**

- **API Service Categories** CK-4, CJ-4, CI-4 PLUS, CI-4 and CH-4
- **Cummins** CES 20081
- **Mack** EO-O Premium Plus
- **Volvo** VDS-4

**Ursa Super Plus EC SAE 10W-30 is recommended for:**

- **Caterpillar** ECF-3

**TYPICAL TEST DATA**

<b>SAE Grade</b>	<b>10W-30</b>
<i>Product Number</i>	257006
<i>SDS Number</i>	
U.S.	43293
Canada	43294
Mexico	43295
Density at 15°C, kg/L	0.8706
Viscosity, Kinematic	
mm <sup>2</sup> /s at 40°C	81
mm <sup>2</sup> /s at 100°C	12.2
Viscosity, Cold Crank, °C/mPa.s	-25/6400
Viscosity, MRV, °C/mPa.s	-30/18,800
Viscosity, HTHS, mPa.s at 150°C	3.6
Viscosity Index	145
Flash Point, °C(°F)	225(437)
Pour Point, °C(°F)	-38(-36)
Sulfated Ash, mass %	1.0
Base Number, mgKOH/g, ASTM D2896	8.8
Sulfur, mass %	0.24
Phosphorus, mass %	0.075
Zinc, mass %	0.085

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.



# CHEVRON LUBRICATING OIL FM

## 32, 46, 68, 100, 220, 460

---

### PRODUCT DESCRIPTION

Chevron Lubricating Oils FM are premium performance multipurpose food grade lubricants formulated for use in the food processing and other sensitive industries where incidental food contact may occur.

### CUSTOMER BENEFITS

Chevron Lubricating Oils FM deliver value through:

- **Oxidation inhibition** — High oxidation stability protects against oil thickening and sludge formation.
- **Variety of non-food applications** — Helps minimize inventory.
- **Container selection** — Packaged in new returnable 55 gallon drums, 5 gallon pails, and 330 gallon disposable containers.
- **Odorless and tasteless** — Product will not be adulterated if incidental food contact should occur.
- **Excellent antiwear protection, long oil service intervals, and rust protection**
- **Suitable for conventional oil collection/recycling programs**

### FEATURES

They contain a special preservative to protect against the introduction of molds when the product is put into service.

Provides performance above that found in typical white mineral oils often used in the food industry.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

27 April 2015  
FPL-20

© 2008-2015 Chevron U.S.A. Inc. All rights reserved.

Chevron and the Chevron Hallmark are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

## APPLICATIONS

ISO	Description	Properties							Recommended for
		Lubricity Enhancer	Antiwear	Rust protection	Corrosion protection	Water separability	Foam control	Oxidation stability	
32 46 68	Hydraulic oils, general purpose lubricants		✓	✓	✓	✓	✓	✓	High pressure hydraulic systems, air compressors, airline lubricators, and the lubrication of bearings and lightly loaded gears
100 (* )	Circulating oil and general purpose lubricant		✓	✓	✓		✓	✓	Circulating oil systems, airline lubricators, and bearing lubrication
220	Gear oil and general purpose lubricant		✓	✓	✓	✓	✓	✓	Enclosed gear sets, reduction gears, and gear drives which are sensitively located in a food processing operation. It can also be used in hydraulic or circulating systems that require a higher viscosity lubricant.
460 (* )	Gear oil and general purpose lubricant, a "compounded" gear oil	✓	✓	✓	✓		✓	✓	Gear sets, rotary steamers, and valves up to 175°C (350°F)

(\* ) ISO 100 and ISO 460 grades emulsify with water.

### Chevron Lubricating Oils FM

- conform to **U.S. Food and Drug Administration (FDA)** requirements of lubricants with incidental food contact, 21 CFR 178.3570. Lubricants with incidental food contact should not contaminate food at levels greater than 10 ppm.
- are registered by **NSF** and are acceptable as a lubricant where incidental food contact may occur (H1) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.
- are certified **Kosher** and **Pareve**.
- are identified on the **Canadian Food Inspection Agency** Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products. This registration requirement was repealed by CFIA on July 2, 2014.

Chevron Lubricating Oils FM meet these stringent standards of purity while performing exceptionally well in high pressure hydraulic applications, plant air tool lubrication (FRL units), high temperature gears, and gearhead motors.

Chevron Lubricating Oil FM 100 is approved by:

- Racine Fluid Power** for use in their vane-type high pressure pumps

Do not use Chevron Lubricating Oils FM 32, 46, or 68 in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

## TYPICAL TEST DATA

ISO Grade	32	46	68	100	220	460
Product Number	232103	255150	255110	232105	255106	232106
SDS Number	6850	6850	6850	6859	6859	6859
AGMA Grade	—	1	2	3	5	7 Compounded
API Gravity	33.4	32.8	32.2	31.5	30.7	29.2
Viscosity, Kinematic cSt at 40°C cSt at 100°C	30.4 5.2	41.4 6.4	64.6 8.5	95.0 11.3	209 20.2	437 34.7
Viscosity, Saybolt SUS at 100°F SUS at 210°F	157 44	213 48	334 55	494 65	1096 102	2308 169
Viscosity Index	100	101	102	105	112	118
Flash Point, °C(°F)	220(428)	234(453)	254(489)	260(500)	260(500)	243(469)
Pour Point, °C(°F)	-9(+16)	-9(+16)	-9(+16)	-9(+16)	-9(+16)	-9(+16)
Rust Test Distilled water, ASTM D665A	Pass	Pass	Pass	Pass	Pass	Pass
Four-Ball Wear Scar Diameter, mm	0.45	0.43	0.42	0.44	0.43	0.43
Vickers V104C Pump Test Total Wear, mg	16.7	—	16.5	19.2	—	—
Oxidation Stability, Hours to 2.0 mg KOH/g acid number, ASTM D943*	>15,000	>15,000	>15,000	>15,000	>15,000	—

\* Modified ASTM D943, allowed to run beyond 10,000 h.

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.



# RANDO<sup>®</sup> HD

10, 22, 32, 46, 68, 100, 150, 220, 320

---

## PRODUCT DESCRIPTION

Rando<sup>®</sup> HD oils are formulated with premium base oil technology and designed to give robust protection to hydraulic pumps in mobile and stationary systems.

## CUSTOMER BENEFITS

Rando HD oils deliver value through:

- **Long equipment life** — Special antiwear additive package minimizes wear by protecting surfaces when load causes breakdown of the lubricant film.
- **Minimized downtime** — Effective rust and oxidation inhibitor system helps prevent the production of abrasive particles from rust formation, and deposits, varnishes and sludges from oil breakdown, which can damage equipment surfaces and seals, and block filters prematurely.
- **Smooth operation** — Good hydrolytic stability and water separation characteristics promote excellent filterability in the presence of water contamination. Good anti-foam and air release help ensure smooth operation and system efficiency.
- **Optimal oil service life** — High oxidation stability resists oil thickening and deposit formation in service, minimizing the possibility of an unscheduled change of hydraulic fluid.

## FEATURES

Rando HD **ISO 32, 46, and 68** are formulated with Group II base stocks.

Rando HD **ISO 100, 150, 220, and 320** are designed for lubricant applications requiring an AGMA R&O gear oil lubricant in the applicable viscosity grade.

Rando HD oils provide excellent:

- antiwear protection
- oxidation and corrosion inhibition
- foam and aeration suppression

Under moderate loads and temperatures, the high viscosity index of Rando HD oils help ensure good film strength between metal surfaces and is further enhanced by antiwear additive protection.

## APPLICATIONS

Rando HD **ISO 10 and 22** can be used as spindle lubricants where zinc-free oils are not a requirement.

Rando HD **ISO 32, 46, or 68** are recommended for:

- vane-, piston-, or gear-type pumps, especially where pressures exceed 1000 psi
- lightly loaded reciprocating compressors

Rando HD **ISO 100, 150, 220, or 320** are recommended for applications where AGMA rust and oxidation inhibited oils are required:

- hydraulic equipment reduction gears where EP is not required
- plain and antifriction bearings
- circulating oil systems

Rando HD oils are approved for:

- **Eaton-Vickers** 35VQ25A pump, M-2950-S (Mobile) and I-286-S (Stationary) (ISO 32, 46, 68)
- **Parker Hannifin (Denison)** HFO, HF1, HF2, T6H2OC (ISO 32, 46, 68)

Product(s) manufactured in the USA, Colombia and El Salvador.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

29 September 2014  
IO-170

© 2008-2014 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Rando are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

Rando® HD oils meet the requirements of:

- **AFNOR** NF E 48-603 HM (ISO 32, 46, 68)
- **ANSI/AGMA** 9005-EO2, *Industrial Gear Lubrication*, for gear lubrication as rust and oxidation inhibited gear oils (ISO 46, 68, 100, 150, 220)
- **ASTM** D6158 HM (ISO 32, 46, 68, 100, 150)
- **Bosch Rexroth** former specification RE 90220-01 (ISO 32, 46, 68)
- **DIN** 51524-2 (ISO 32, 46, 68)
- **General Motors** LS2 Specification, LH for anti-wear hydraulic fluids (ISO 32, 46, 68)
- **ISO** 11158 L-HM
- **Joy** HO-S (ISO 68)
- **MAG Cincinnati, Cincinnati Machine** P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO 68)
- **US Steel** 126, 127 (ISO 32, 46, 68)

Rando HD **ISO 32, 46, 68, 100, 150, 220, and 320** are registered by **NSF** and are acceptable as lubricants where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Do not use in breathing air apparatus or medical equipment.

## TYPICAL TEST DATA

ISO Grade	10	22	32	46	68
Product Number	273252	273276	273277	273278	273279
SDS/MSDS Number					
USA	23706	23548	23556	23556	23556
Colombia	—	—	33476	33476	33476
El Salvador	—	—	33477	33477	33477
AGMA Grade	—	—	—	1	2
API Gravity	27.7	33.7	32.6	31.8	31.6
Viscosity, Kinematic					
cSt at 40°C	10.3	23.1	30.4	43.7	64.6
cSt at 100°C	2.5	4.4	5.2	6.5	8.4
Viscosity, Saybolt					
SUS at 100°F	63	120	157	225	334
SUS at 210°F	35	41	44	48	54
Viscosity Index	48	98	99	97	98
Flash Point, °C(°F)	154(309)	177(351)	220(428)	226(439)	235(455)
Pour Point, °C(°F)	-39(-38)	-36(-33)	-33(-27)	-30(-22)	-30(-22)
Oxidation Stability					
Hours to 2.0 mg KOH/g acid number, ASTM D943	—	—	>5000	>5000	>5000

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

## TYPICAL TEST DATA

ISO Grade	100	150	220	320
<i>Product Number</i>	273228	273280	273281	277316
<i>SDS/MSDS Number</i>				
<i>USA</i>	23550	23550	23550	23550
<i>Colombia</i>	33474	33474	—	—
<i>El Salvador</i>	33475	33475	—	—
AGMA Grade	3	4	5	6
API Gravity	30.1	29.7	28.5	27.4
Viscosity, Kinematic				
cSt at 40°C	95.0	143	209	304
cSt at 100°C	11.0	14.2	18.2	23.4
Viscosity, Saybolt				
SUS at 100°F	495	751	1105	1617
SUS at 210°F	64	76	93	117
Viscosity Index	100	97	96	96
Flash Point, °C(°F)	250(482)	260(500)	271(520)	277(531)
Pour Point, °C(°F)	-15(+5)	-12(+10)	-12(+10)	-12(+10)
Oxidation Stability				
Hours to 2.0 mg KOH/g acid number, ASTM D943	>2000	>1500	>1000	>1000

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

29 September 2014  
IO-170

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Rando HD 32, 46, 68

**Product Use:** Hydraulic Oil

**Product Number(s):** 254612, 254613, 254614, 273277, 273278, 273279

#### Company Identification

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

#### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

#### Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

Revision Number: 5

1 of 9

Rando HD 32, 46, 68

Revision Date: FEBRUARY 05, 2016

SDS : 23557

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank

cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and

Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Colorless to yellow

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbon solvents; insoluble in water.

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Density:** 0.87 kg/l @ 15°C (59°F) (Typical)

**Viscosity:** 28.80 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Coefficient of Therm. Expansion / °F:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 170 °C (338 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:  
1 - 16

**Revision Date:** FEBRUARY 05, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may**

suggest modifications of the information, we do not assume any responsibility for the results of its use.  
This information is furnished upon condition that the person receiving it shall make his own  
determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Rando HD 100, 150, 220, 320

**Product Use:** Hydraulic Oil

**Product Number(s):** 219368, 219369, 273228, 273280, 273281, 277316

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	60 - 100 %wt/wt

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if

contaminated.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE SYMPTOMS AND HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to be harmful. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**High-Pressure Equipment Information:** Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS:** Not classified.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with

applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

Keep out of the reach of children.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not

provide adequate protection.  
Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Brown  
**Physical State:** Liquid  
**Odor:** Petroleum odor  
**Odor Threshold:** No data available  
**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)  
**Vapor Density (Air = 1):** >1  
**Initial Boiling Point:** 315°C (599°F)  
**Solubility:** Soluble in hydrocarbon solvents; insoluble in water.  
**Freezing Point:** Not Applicable  
**Density:** 0.86 kg/l - 0.9 kg/l @ 15°C (59°F)  
**Viscosity:** 90 cSt @ 40°C (104°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No Data Available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available  
**Flashpoint:** (Cleveland Open Cup) 232 °C (450 °F) Minimum  
**Autoignition:** No data available  
**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** This material is not expected to react.  
**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.  
**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

**SECTION 15 REGULATORY INFORMATION**

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

- |                     |                      |
|---------------------|----------------------|
| 01-1=IARC Group 1   | 03=EPCRA 313         |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2B | 05=MA RTK            |
| 02=NTP Carcinogen   | 06=NJ RTK            |
|                     | 07=PA RTK            |

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**NEW JERSEY RTK CLASSIFICATION:**

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16.  
**Revision Date:** APRIL 15, 2014

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Chevron Lubricating Oil FM 32, 46, 68

**Product Use:** Food grade lubricant

**Product Number(s):** 232103, 255110, 255150

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
White mineral oil	8042-47-5	70 - 99 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank

cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
White mineral oil	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and

Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Colorless

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg (Estimated) @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 (Estimated)

**Initial Boiling Point:** 315°C (599°F) (Estimated)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Density:** 0.8670 kg/l @ 15.6°C (60.1°F) (Typical)

**Viscosity:** 61.20 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 192 °C (378 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual

components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.SM.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

---

01-1=IARC Group 1  
 01-2A=IARC Group 2A  
 01-2B=IARC Group 2B  
 35=WHMIS IDL

The following components of this material are found on the regulatory lists indicated.

White mineral oil 35

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** MARCH 10, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may**

suggest modifications of the information, we do not assume any responsibility for the results of its use.  
This information is furnished upon condition that the person receiving it shall make his own  
determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Rando HD 32, 46, 68

**Product Use:** Hydraulic Oil

**Product Number(s):** 254612, 254613, 254614, 273277, 273278, 273279

#### Company Identification

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

#### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

#### Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

Revision Number: 5

1 of 9

Rando HD 32, 46, 68

Revision Date: FEBRUARY 05, 2016

SDS : 23557

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

#### SECTION 4 FIRST AID MEASURES

##### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

##### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank

cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and

Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Colorless to yellow

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbon solvents; insoluble in water.

**Freezing Point:** Not Applicable

**Melting Point:** No data available

**Density:** 0.87 kg/l @ 15°C (59°F) (Typical)

**Viscosity:** 28.80 mm<sup>2</sup>/s @ 40°C (104°F) Minimum

**Coefficient of Therm. Expansion / °F:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 170 °C (338 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B  
02=NTP Carcinogen  
03=EPCRA 313  
04=CA Proposition 65  
05=MA RTK  
06=NJ RTK  
07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:  
1 - 16

**Revision Date:** FEBRUARY 05, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may**

suggest modifications of the information, we do not assume any responsibility for the results of its use.  
This information is furnished upon condition that the person receiving it shall make his own  
determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Ursa Super Plus SAE 30, 40

**Product Use:** Diesel Engine Oil  
**Product Number(s):** 219334, 219335, 271203, 271204  
**Company Identification**  
Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
01154100-5328P	Trade secret	0.1 - 1 %wt/wt

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE SYMPTOMS AND HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS:** Not classified.

**Indication of any immediate medical attention and special treatment needed**

Not applicable.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Keep out of the reach of children. Wash thoroughly after handling.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--

Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1

**Initial Boiling Point:** 315°C (599°F)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** Not Applicable

**Melting Point:** Not Applicable

**Specific Gravity:** 0.87 - 0.89 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)

**Density:** 0.87 kg/l @ 15°C (59°F)

**Viscosity:** 10.7 - 19.3 mm<sup>2</sup>/s @ 100°C (212°F)

**Evaporation Rate:** No data available

**Decomposition temperature:** No Data Available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (ASTM D92) 204 °C (399 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** This material is not expected to react.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities

for approved disposal or recycling methods.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

## SECTION 15 REGULATORY INFORMATION

<b>EPCRA 311/312 CATEGORIES:</b>	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: EINECS (European Union), ENCS (Japan).

### NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Motor oil)

## SECTION 16 OTHER INFORMATION

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0  
 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**  
 Label Category : ENGINE OIL 1 - ENG1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 2,8,15  
**Revision Date:** AUGUST 07, 2014

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Way Oil Vistac 68, 220

**Product Use:** Industrial Oil

**Product Number(s):** 232511, 232512

**Company Identification**

Chevron Canada Limited

1050 West Pender

Vancouver, BC V6E 3T4

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Canada regulatory guidelines.

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Distillates, hydrotreated middle	64742-46-7	70 - 99 %wt/wt

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

#### Most important symptoms and effects, both acute and delayed

##### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed** Not Applicable

## SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

### **PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

### Occupational Exposure Limits:

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor  
**Odor Threshold:** No data available  
**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)  
**Vapor Density (Air = 1):** >1  
**Initial Boiling Point:** 315°C (599°F)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Specific Gravity:** 0.9117 @ 15.6°C (60.1°F) Minimum  
**Density:** Not Applicable  
**Viscosity:** 61.20 mm<sup>2</sup>/s @ 40°C (104°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No data available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (Cleveland Open Cup) 170 °C (338 °F) (Min)

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product

components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.



**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1

01-2A=IARC Group 2A

01-2B=IARC Group 2B



35=WHMIS IDL

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), IECSC (China), KECl (Korea), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** June 01, 2016

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own**

determination of the suitability of the material for his particular purpose.

# Safety Data Sheet



**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

## Way Oil Vistac 68, 220

**Product Use:** Industrial Oil

**Product Number(s):** 232511, 232512

**Company Identification**

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : lubemsds@chevron.com  
Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

**SECTION 2 HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Distillates, hydrotreated middle	64742-46-7	70 - 99 %wt/wt

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE SYMPTOMS AND HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS:** Not classified.

**Indication of any immediate medical attention and special treatment needed**

Not applicable.

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this

material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Brown  
**Physical State:** Liquid  
**Odor:** Petroleum odor  
**Odor Threshold:** No data available  
**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg @ 37.8 °C (100 °F)  
**Vapor Density (Air = 1):** >1  
**Initial Boiling Point:** 315°C (599°F)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Freezing Point:** Not Applicable  
**Specific Gravity:** 0.9117 @ 15.6°C (60.1°F) / 15.6°C (60.1°F) Minimum  
**Density:** Not Applicable  
**Viscosity:** 61.2 mm<sup>2</sup>/s @ 40°C (104°F) Minimum  
**Evaporation Rate:** No data available  
**Decomposition temperature:** No Data Available  
**Octanol/Water Partition Coefficient:** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available  
**Flashpoint:** (Cleveland Open Cup) 170 °C (338 °F) (Min)  
**Autoignition:** No data available  
**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** This material is not expected to react.  
**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.  
**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

#### **ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

### **SECTION 12 ECOLOGICAL INFORMATION**

#### **ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

#### **MOBILITY**

No data available.

#### **PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.

#### **POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

### **SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

### **SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

**SECTION 15 REGULATORY INFORMATION**

**EPCRA 311/312 CATEGORIES:**

1. Immediate (Acute) Health Effects:	NO
2. Delayed (Chronic) Health Effects:	NO
3. Fire Hazard:	NO
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Lubricating oil)

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Safety Data Sheet: 1-16  
**Revision Date:** JUNE 03, 2014

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**



# DELO<sup>®</sup> 400 SDE

## SAE 15W-40



### PRODUCT DESCRIPTION

“Delo. Let’s go further.<sup>®</sup>”

Delo<sup>®</sup> 400 SDE SAE 15W-40 with ISOSYN<sup>®</sup> Advanced Technology is a heavy duty engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API CK-4 or SN service category and SAE 15W-40 viscosity grade are recommended. Delo 400 SDE 15W-40 is also backwards compatible with diesel engines in which the API CJ-4, CI-4, CI-4 Plus and CH-4 service categories are recommended.

### CUSTOMER BENEFITS

Delo 400 SDE SAE 15W-40 with ISOSYN Advanced Technology is an API CK-4 heavy duty engine oil specifically formulated for 2017 greenhouse gas (GHG 17) compliant diesel engines designed to meet lower CO<sub>2</sub> emissions and improved fuel economy, in addition to EPA 2010 compliant low emission diesel engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) systems. It is fully compatible with previous engine models and previous API Oil Service Categories. It delivers value through:

- **Minimized Operating Costs**— Exceptional soot dispersancy and wear control. Cylinders, pistons, rings, and valve train components are well protected against wear and corrosion, providing optimum service life and minimal maintenance. Contributes to maximum vehicle utilization and minimal downtime.
- **Excellent Emission Control System Life** — Provides optimum Diesel Particulate Filter (DPF) life for minimal downtime and cleaning, thus managing your maintenance costs.
- **Managed Inventory Costs** — Backward compatible with previous API Oil Service Categories

and engine models. Suitable for use in four-stroke gasoline and naturally aspirated, turbocharged and modern electronically controlled/low emission diesel engines calling for an SAE 15W-40 heavy duty motor oil. Allows users with a wide mix of engine brands to enjoy simplified inventory and dispensing systems that may contribute to saving money, space and handling time.

- **Warranty Plus Protection** — Bumper-to-bumper warranty protection from the engine to the drive train. Payment for Chevron lubricant-related damage to your equipment, including parts and labor.<sup>1</sup> Problem resolution and technical advice from Chevron’s lubrication experts.
- **Access to Chevron’s Lubrication and Industry Knowledge** — Helps maximize your bottom line business results.

### FEATURES

Delo 400 SDE SAE 15W-40 with ISOSYN Advanced Technology is a super premium quality conventional engine oil which exceeds industry and engine manufacturers’ performance requirements. It is the most recommended OEM viscosity grade for over-the-road and off-highway diesel engines.



It is formulated using the most advanced additive technology to provide outstanding protection for on- and off-highway applications, including GHG 17 and EPA 2010 compliant engines of on-highway diesel trucks burning Ultra Low Sulfur Diesel (ULSD), as well as 2014 compliant engines for off-highway vehicle diesel engines.

<sup>1</sup> See Warranty Plus for details and restrictions.

Product(s) manufactured in the USA and Colombia.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

1 December 2017  
HDMO-28

© 2009-2017 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark, Delo, Delo. Let’s go further., ISOSYN and the ISOSYN logo are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

Today, Delo® 400 SDE SAE 15W-40 with ISOSYN® Advanced Technology meets the most stringent EGR soot control requirements.

Delo 400 SDE SAE 15W-40 with ISOSYN Advanced Technology has been specifically designed to meet the demands of EGR and SCR engines. It is formulated to comply with passenger car requirements where API SN performance standard and SAE 15W-40 viscosity grade are acceptable, and when maximum 800 ppm phosphorous is specified.

Delo 400 SDE SAE 15W-40 is formulated with ISOSYN Advanced Technology, which is the combination of Chevron's industry leading formulating expertise with unique, high performance additive chemistry to help extend the durability of your critical diesel engine parts.

## ISOSYN ADVANCED TECHNOLOGY

ISOSYN Advanced Technology is the combination of Chevron's outstanding formulating expertise, unique high performance additive chemistry and premium base oils that helps extend the durability of critical diesel engine parts.

Delo 400 products formulated with ISOSYN Advanced Technology can provide improved engine longevity, extended oil drain performance, and excellent diesel component parts protection, helping to extend vehicle life and minimize total cost of ownership when compared with previous generation Chevron HDMO formulations.

ISOSYN Advanced Technology benefits customers by helping to provide:

- Up to 35% improved oil oxidation control\*
- Up to 68% improved wear protection\*
- Up to 64% improved piston deposit control\*

\*Results will vary based on the particular Delo 400 product, operating conditions, and engine types. Always follow OEM recommendations and utilize used oil analysis testing when extending oil drain intervals.

## FUNCTIONS

Delo 400 SDE SAE 15W-40 with ISOSYN Advanced Technology helps keep rings clean and free for maximum combustion pressure and minimal wear. Delo 400 SDE SAE 15W-40 minimizes valve and piston crown land deposits, thereby maintaining minimal oil

consumption. Its high level of ashless dispersants keep fuel soot in suspension and help avoid filter plugging, heavy cylinder head sludge, abrasive polishing wear, high viscosity increase, and oil gelling. These problems can result in excessive engine wear and bearing failure on startup, without prior indication to the operator.

Specially selected oxidation inhibitors control oxidation, sludge, and undue thickening during oil drain periods. Delo 400 SDE SAE 15W-40's unique antiwear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication. A specially selected viscosity index improver ensures easy flow at low temperatures and excellent film protection in hot engine areas.

The combination of premium dispersant additives and ISOSYN Advanced Technology allows Delo 400 SDE SAE 15W-40 to effectively disperse soot and keep it in suspension. This minimizes the risk of valve train wear, lever polishing, and filter plugging.

## APPLICATIONS

Delo 400 SDE SAE 15W-40 with ISOSYN Advanced Technology is a mixed fleet motor oil recommended for naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API CK-4 or SN service category and SAE 15W-40 viscosity grade are recommended. It is formulated for engines operating under severe service and a wide range of climatic conditions.

Delo 400 SDE SAE 15W-40 with ISOSYN Advanced Technology is excellent for use in new advanced engines developed to meet the latest emissions and reliability standards and in engines equipped with features like four-valve heads, super-charging, turbo-charging, direct injection, shorter piston crowns, higher power density, intercooling, full electronic management of fuel and emissions systems, exhaust selective catalytic reduction, exhaust gas recirculation, and exhaust particulate filters.

It is formulated for exceptional performance with ultra low sulfur diesel and low sulfur diesel fuels.

This product is recommended for use in today's most modern off-highway engines including those adapted for current emissions standards in construction, agriculture, mining, and marine applications

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

**Delo® 400 SDE SAE 15W-40 is approved for:**

- **API Service Categories** CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4, SN
- **Cummins** CES 20086
- **Daimler MB-Approval** 228.31
- **Detroit Fluids Specification** (DFS) 93K222
- **DEUTZ** DQC III-10 LA
- **Mack** EOS 4.5
- **MTU** Category 2.1
- **Renault** RLD-4
- **Volvo** VDS-4.5

**Delo 400 SDE SAE 15W-40 meets the requirements for:**

- **ACEA** E9
- **Caterpillar** ECF-3
- **JASO** DH-2
- **MAN** M3575

**TYPICAL TEST DATA**

<b>SAE Grade</b>	<b>15W-40</b>
<i>Product Number</i>	222290
<i>SDS Number</i>	
<i>U.S.</i>	42671
<i>Canada</i>	43551
<i>Mexico</i>	43552
<i>Colombia</i>	43918
<i>El Salvador</i>	43919
Density at 15°C, kg/L	0.877
Viscosity, Kinematic mm <sup>2</sup> /s at 40°C	112
mm <sup>2</sup> /s at 100°C	14.6
Viscosity, Cold Crank, °C/mPa.s	-20/5400
Viscosity, MRV, °C/mPa.s	-25/16,700
Viscosity, HTHS, mPa.s	4.2
Viscosity Index	134
Flash Point, °C(°F)	230(446)
Pour Point, °C(°F)	-43(-45)
Sulfated Ash, mass %	1.0
Base Number, mgKOH/g, ASTM D2896	10
Phosphorus, mass %	0.076
Sulfur, mass %	0.3
Zinc, mass %	0.08

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

1 December 2017  
HDMO-28

# Safety Data Sheet



## 1 PRODUCT AND COMPANY IDENTIFICATION

### Delo 400 SDE SAE 15W-40

**Product Use:** Diesel Engine Oil  
**Product Number(s):** 222290, 278085  
**Synonyms:** Delo 400 SDE SAE 15W-40 ISOCLEAN Certified  
**Company Identification**

Productos Chevron México S. de R.L. de C.V.  
Oriente 171 Núm. 401  
Col. San Juan de Aragón Ampliación  
Delegación Gustavo A. Madero C.P. 07470  
Mexico

#### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887  
Mexico - SETIQ: 01 800 00 214 00 y 55 59 15 88 (D.F.)

#### Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

email : ordenesmexico@chevron.com  
SDS Requests: 01 (800) 711-8772

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to Mexico regulatory guidelines.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight

## SECTION 4 FIRST AID MEASURES

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly

clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

## SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Nitrogen.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain

circumstances.

#### ENGINEERING CONTROLS:

Use in a well-ventilated area.

#### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

#### Occupational Exposure Limits:

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	--	--
Highly refined mineral oil (C15 - C50)	Mexico	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	--	--

Consult local authorities for appropriate values.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

#### Appearance

**Color:** Amber

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Melting Point:** No data available

**Freezing Point:** Not Applicable

**Boiling Point:** >315°C (599°F) (Estimated)

**Flashpoint:** (Cleveland Open Cup) 204 °C (399 °F) Minimum

**Flammability (solid, gas):** No Data Available

**Flammability (Explosive) Limits (% by volume in air):**

Lower: Not Applicable Upper: Not Applicable

**Vapor Pressure:** <0.01 mmHg (Estimated) @ 37.8 °C (100 °F)

**Vapor Density (Air = 1):** >1 (Estimated)

**Density:** 0.87 kg/l @ 15°C (59°F) (Typical)

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Partition coefficient: n-octanol/water:** No data available

**Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available

**Evaporation Rate:** No data available

### SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

## SECTION 11 TOXICOLOGICAL INFORMATION

### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Eye Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Skin Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Ingestion:** Not expected to be harmful if swallowed.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

### ADDITIONAL TOXICOLOGY INFORMATION:

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### **ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.  
The product has not been tested. The statement has been derived from the properties of the individual components.

### **MOBILITY**

No data available.

### **PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.  
The product has not been tested. The statement has been derived from the properties of the individual components.

### **POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No data available

## **SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

## **SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

## **SECTION 15 REGULATORY INFORMATION**

### **REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

### **CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: DSL (Canada), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: AICS (Australia), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TCSI (Taiwan).

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**REVISION STATEMENT:** SECTION 02 - Environmental Classification information was deleted.

SECTION 02 - Hazard Statements information was deleted.

SECTION 02 - Precautionary Statements information was deleted.

SECTION 05 - Fire Fighters Protection Measures information was modified.

SECTION 05 - Special hazards arising from the substance or mixture information was added.

SECTION 09 - Physical/Chemical Properties information was modified.

SECTION 12 - Ecological Information information was modified.

SECTION 15 - Chemical Inventories information was modified.

**Revision Date:** January 24, 2018

The information is considered correct, but not exhaustive and is to be used only as guidance, which is based on the current knowledge on the chemical substance or mixture and is applicable to the appropriate safety precautions for the product.

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

Prepared according to the Mexican Official Standard (NOM-018-STPS-2015) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**



# DELO<sup>®</sup> GEAR EP-5

## SAE 80W-90, 85W-140

---

### PRODUCT DESCRIPTION

Delo<sup>®</sup> Gear EP-5 gear lubricants are recommended for use in spiral bevel and hypoid differentials, power dividers, and oil-lubricated steering axle wheel bearings.

### CUSTOMER BENEFITS

Delo Gear EP-5 delivers value through:

- **Long gear life** — Extreme pressure properties protect hypoid and other types of gears from scuffing and wear.
- **Rust and corrosion protection** — Effective inhibitor package protects against rusting or corrosion of gear and bearing surfaces.
- **Excellent foam inhibition** — Foaming minimized by use of foam inhibitor.
- **Long lubricant life** — Outstanding thermal and oxidation stability allow high temperature operation with long lubricant life.
- **Seal Protection** — Formulated to protect against oil seal deterioration.

### FEATURES

Delo Gear EP-5 are multipurpose lubricants.

They are made from paraffinic base stocks and contain a carefully balanced additive package to provide gear protection and long lubricant life.

The sulfur-phosphorus extreme pressure additive technology used in Delo Gear EP-5 provides exceptional thermal and oxidation stability. In addition, this lubricant is fortified with rust and corrosion inhibitors, a foam inhibitor, and a pour point depressant.

The sulfur-phosphorus extreme pressure additives in Delo Gear EP-5 minimize the spalling and wear of gears by creating a microthin sacrificial film on the surface of the gear teeth which is actually softer than the gears themselves. Frictional heat and pressures between gear teeth cause the sulfur-phosphorus to react with the surfaces of the gear teeth at the point of contact, thus creating the sacrificial film.

The highly refined base stocks and various inhibitors in the additive package help assure a well-balanced lubricant and long gear and bearing life.

### APPLICATIONS

Delo Gear EP-5 lubricants are recommended for use in spiral bevel and hypoid differentials, power dividers, and oil-lubricated steering axle wheel bearings.

Their multiviscosity characteristics allow their use in equipment operating over a broad ambient temperature range. This means good cold flow properties and gear protection.

Delo Gear EP-5 lubricants are approved for **SAE J2360** (formerly known as MIL-PRF-2105E) and meet the requirements of:

- **API Service Categories** MT-1, GL-4 and GL-5
- **Mack** GO-J

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

18 April 2017  
GL-46

© 2017 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Delo are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

## TYPICAL TEST DATA

SAE Grade	80W-90	85W-140
<i>Product Number</i>	223022	223021
<i>SDS Number</i>		
<i>U.S.</i>	44036	44036
<i>Canada</i>	44042	44042
<i>Mexico</i>	44043	44043
Density at 15.6°C(60°F), kg/L(lb/gal)	0.8856(7.39)	0.8991(7.50)
Viscosity, Kinematic		
cSt at 40°C	145	341
cSt at 100°C	14.2	25.0
Viscosity, Brookfield		
cP at -12°C	—	80,000
cP at -26°C	73,000	—
Viscosity Index	95	95
Flash Point, °C(°F)	218(421)	226(439)
Pour Point, °C(°F)	-33(-27)	-15(+5)

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

# Safety Data Sheet



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Delo Gear EP-5 SAE 80W-90, 85W-140

**Product Use:** Automotive Gear Lubricant

**Product Number(s):** 219941, 223021, 223022

**Company Identification**

Chevron Canada Limited

500 - 5th Ave. SW

Calgary, ALBERTA T2P 0L7

Canada

[www.chevronlubricants.com](http://www.chevronlubricants.com)

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : [lubemsds@chevron.com](mailto:lubemsds@chevron.com)

Product Information: (800) LUBE TEK

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Avoid release to the environment (P273).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15-C50)	Mixture	70 - 99 %wt/wt
Olefin polysulphide	Trade secret	0 - < 5 %wt/wt
Phosphoric acid ester, amine salt	Mixture	0 - < 2.5 %wt/wt
Long chain alkyl amine	Mixture	0 - < 0.5 %wt/wt

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at

airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Indication of any immediate medical attention and special treatment needed** Not Applicable

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Aldehydes, Alkyl Mercaptans, Hydrogen Sulfide, Sulfur.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

---

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15-C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.



## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

**Color:** Brown

**Physical State:** Liquid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** No data available

**Vapor Pressure:** No data available

**Vapor Density (Air = 1):** No data available

**Initial Boiling Point:** No data available

**Solubility:** Soluble in hydrocarbons; insoluble in water

**Freezing Point:** No data available

**Melting Point:** No data available

**Density:** 0.8850 kg/l - 0.9050 kg/l @ 15°C (59°F) (Typical)

**Viscosity:** 13.70 mm<sup>2</sup>/s @ 100°C (212°F) Minimum

**Coefficient of Therm. Expansion / °F:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Octanol/Water Partition Coefficient:** No data available

### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** (ASTM D92) 165 °C - 180 °C (329 °F - 356 °F) Minimum

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: No data available Upper: No data available

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Sensitivity to Mechanical Impact:** No.

## SECTION 11 TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.

**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components. For additional information on the acute toxicity of the components, call the technical information center.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.

**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.

**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.

**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION**



**ECOTOXICITY**

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.SM.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**TC Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER TRANSPORT CANADA (TDG)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO



**DOT Shipping Description:** NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

**SECTION 15 REGULATORY INFORMATION**

**REGULATORY LISTS SEARCHED:**

- 01-1=IARC Group 1
- 01-2A=IARC Group 2A
- 01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**SECTION 16 OTHER INFORMATION**

- REVISION STATEMENT:** SECTION 01 - Product Code(s) information was modified.
- SECTION 03 - Composition information was modified.
- SECTION 05 - Fire Fighters Protection Measures information was modified.
- SECTION 05 - Special hazards arising from the substance or mixture information was added.
- SECTION 09 - Physical/Chemical Properties information was deleted.
- SECTION 09 - Physical/Chemical Properties information was modified.
- SECTION 11 - Additional Toxicology Information information was deleted.

**Revision Date:** February 14, 2018

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
WHMIS - Workplace Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency

SCBA - Self-Contained Breathing Apparatus	
---	--

Prepared according to the WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.
---

<p>The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use.</p> <p>This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.</p>
---



# DELO<sup>®</sup> STARPLEX<sup>®</sup> EP 1, 2 (formerly Starplex<sup>®</sup> EP)

---

## PRODUCT DESCRIPTION

Delo<sup>®</sup> Starplex<sup>®</sup> EP greases are water resistant, extreme pressure, heavy duty chassis and wheel bearing greases.

## CUSTOMER BENEFITS

Delo Starplex EP greases deliver value through:

- **Good water resistance** — Good resistance to wash out of bearings.
- **Good rust and corrosion protection**, even in wet conditions.
- **Extreme pressure protection.**
- **Protection against shock loading**, thus promoting long bearing life.
- **Outstanding film strength** and adhesive properties.
- **Good low temperature pumpability** — Easy handling in the container and grease dispensing equipment.

## FEATURES

Delo Starplex EP greases are water resistant, extreme pressure, heavy duty chassis and wheel bearing greases.

Delo Starplex EP greases are manufactured using highly refined, select high viscosity index base oils, and a lithium complex soap.

Delo Starplex EP greases are available in two grades:

- **NLGI grade 1** for easy pumpability at low ambient temperatures
- **NLGI grade 2** for use in normal ambient temperatures

Product(s) manufactured in the USA and Colombia.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

© 2008-2017 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark and Starplex are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

## FUNCTIONS

Delo Starplex EP greases are formulated to:

- Protect bearings and other metal surfaces from corrosion when exposed to wet conditions.
- Resist water. These greases strongly resist being washed out of bearings.
- Retain their consistency under a wide range of service conditions.
- Provide outstanding film strength and adhesive properties. As a result, Starplex EP greases are particularly effective in providing low wear in shock load service.
- Operate effectively over a wide temperature range.

## APPLICATIONS

Delo Starplex EP greases are recommended for:

- use in the lubrication of trucks, tractors, and passenger cars. This includes ball joints, universal joints, chassis points, wheel bearings, water pumps, and fifth wheels.
- boat trailer wheel bearings
- high temperature disc brake bearing applications

Delo Starplex EP greases are approved for the NLGI Certification Mark GC-LB.



1 July 2017  
GR-117

## TYPICAL TEST DATA

NLGI Grade	1	2
Product Number	259119	259118
SDS/MSDS Number		
USA	44614	44614
Canada	44615	44615
Mexico	44616	44616
Colombia		33449
Operating Temperature, °C(°F)		
Minimum <sup>a</sup>	-40(-40)	-40(-40)
Maximum <sup>b</sup>	177(350)	177(350)
Penetration, at 25°C(77°F)		
Unworked	310	267
Worked	325	280
Dropping Point, °C(°F)	245(471)	255(491)
Four-Ball		
Weld Point, kg	315	315
Wear Scar Diameter, mm	0.45	0.45
Timken OK Load, lb	50	50
Thickener, %	9	12
Type	Lithium Complex	Lithium Complex
Viscosity, Kinematic*		
cSt at 40°C	226	226
cSt at 100°C	20.7	20.7
Viscosity, Saybolt*		
SUS at 100°F	1188	1188
SUS at 210°F	104.2	104.2
Viscosity Index*	107	107
Flash Point, °C(°F)*	274(525)	274(525)
Pour Point, °C(°F)*	-12(+10)	-12(+10)
Texture	Tacky	Tacky
Color	Red	Red

a Minimum operating temperature is the lowest temperature at which a grease, already in place, could be expected to provide lubrication. Most greases cannot be pumped at these minimum temperatures.

b Maximum operating temperature is the highest temperature at which the grease could be used with frequent (daily) relubrication.

\* Determined on mineral oil extracted by vacuum filtration.

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

# Safety Data Sheet



## 1 PRODUCT AND COMPANY IDENTIFICATION

### Delo Starplex EP 1, 2

**Product Use:** Grease

**Product Number(s):** 219951, 259118, 259119

**Company Identification**

Productos Chevron México S. de R.L. de C.V.

Oriente 171 Núm. 401

Col. San Juan de Aragón Ampliación

Delegación Gustavo A. Madero C.P. 07470

Mexico

**Transportation Emergency Response**

CHEMTREC: (800) 424-9300 or (703) 527-3887

Mexico - SETIQ: 01 800 00 214 00 y 55 59 15 88 (D.F.)

**Health Emergency**

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

email : ordenesmexico@chevron.com

SDS Requests: 01 (800) 711-8772

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

**Environmental Hazards:** Harmful to aquatic life with long lasting effects (H412).

**PRECAUTIONARY STATEMENTS:**

**Prevention:** Avoid release to the environment (P273).

**Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %weight
Zinc dialkyldithiophosphate	68649-42-3	1 - < 5 %weight
Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs., borated	134758-95-5	0.1 - < 1.5 %weight

Phosphoric acid ester, amine salt	91745-46-9	0 - < 1.5 %weight
Phosphoric acid ester, amine salt	Confidential	0 - < 1 %weight

#### SECTION 4 FIRST AID MEASURES

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

#### SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

##### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Hydrogen Sulfide, Zinc, Lithium, Phosphorus, Sulfur.

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

#### SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

### Occupational Exposure Limits:

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	--	--
Highly refined mineral oil (C15 - C50)	Mexico	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	--	--

Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention:** the data below are typical values and do not constitute a specification.

### Appearance

**Color:** Red

**Physical State:** Semi-solid

**Odor:** Petroleum odor

**Odor Threshold:** No data available

**pH:** Not Applicable

**Melting Point:** No data available

**Freezing Point:** Not Applicable

**Boiling Point:** No data available

**Flashpoint:** 200 °C (392 °F) Minimum  
**Flammability (solid, gas):** No Data Available  
**Flammability (Explosive) Limits (% by volume in air):**  
Lower: Not Applicable Upper: Not Applicable  
**Vapor Pressure:** No data available  
**Vapor Density (Air = 1):** No data available  
**Density:** No data available  
**Specific Gravity:** 0.90 (Estimated)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Partition coefficient: n-octanol/water:** No data available  
**Auto-ignition temperature:** No data available  
**Decomposition temperature:** No data available  
**Viscosity:** 18 mm<sup>2</sup>/s @ 100°C (212°F) Minimum  
**Evaporation Rate:** No data available

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.  
**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**Hazardous Polymerization:** Hazardous polymerization will not occur.  
**Incompatibility With Other Materials:** Not applicable  
**Hazardous Decomposition Products:** Alkyl Mercaptans (Elevated temperatures), Hydrogen Sulfide (Elevated temperatures)

## SECTION 11 TOXICOLOGICAL INFORMATION

### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Eye Irritation:** The eye irritation hazard is based on evaluation of data for similar materials.

**Skin:** High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.

**Skin Irritation:** The skin irritation hazard is based on evaluation of data for similar materials.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.

**Ingestion:** Not expected to be harmful if swallowed.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.

**Acute Toxicity Estimate:** Not Determined

**ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**SECTION 12 ECOLOGICAL INFORMATION****ECOTOXICITY**

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT

UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: KECI (Korea).

## SECTION 16 OTHER INFORMATION

**REVISION STATEMENT:** SECTION 03 - Composition information was modified.  
SECTION 05 - Fire Fighters Protection Measures information was modified.  
SECTION 05 - Special hazards arising from the substance or mixture information was added.  
SECTION 09 - Physical/Chemical Properties information was added.  
SECTION 09 - Physical/Chemical Properties information was deleted.  
SECTION 09 - Physical/Chemical Properties information was modified.  
SECTION 10 - Hazardous Decomposition Products information was modified.  
SECTION 14 - DOT Classification information was added.  
SECTION 14 - DOT Classification information was deleted.  
SECTION 14 - ICAO Classification information was added.  
SECTION 14 - ICAO Classification information was deleted.  
SECTION 14 - IMO Classification information was added.  
SECTION 14 - IMO Classification information was deleted.  
SECTION 16 - NFPA Rating information was deleted.

**Revision Date:** September 18, 2018

The information is considered correct, but not exhaustive and is to be used only as guidance, which is based on the current knowledge on the chemical substance or mixture and is applicable to the appropriate safety precautions for the product.

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

Prepared according to the Mexican Official Standard (NOM-018-STPS-2015) by Chevron Energy Technology

Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**



# SYNCO CHEMICAL CORPORATION



## Allergen Statement

March 2019

This is to certify that Super Lube® products do not contain any food allergens as referenced in The Food Allergen Labeling and Consumer Protection Act of 2004 (Public Law 108-282, Title II; FALCPA) and the following European Union Document:

**DIRECTIVE 2003/89/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
of 10 November 2003  
amending Directive 2000/13/EC as regards indication of the ingredients present in foodstuffs**

The said Committee has acknowledged that common food allergens include cow's milk, fruits, legumes (especially peanuts and soybeans), eggs, crustaceans, tree nuts, fish, vegetables (celery and other foods of the Umbelliferae family), wheat and other cereals.

'ANNEX IIIa

**Ingredients referred to in Article 6(3a), (10) and (11)**

Cereals containing gluten (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains) and products thereof

Crustaceans and products thereof

Eggs and products thereof

Fish and products thereof

Peanuts and products thereof

Soybeans and products thereof

Milk and products thereof (including lactose)

Nuts i. e. Almond (*Amygdalus communis L.*), Hazelnut (*Corylus avellana*), Walnut (*Juglans regia*), Cashew (*Anacardium occidentale*),

Pecan nut (*Carya illinoensis (Wangenh.) K. Koch*), Brazil nut (*Bertholletia excelsa*), Pistachio nut (*Pistacia vera*),

Macadamia

nut and Queensland nut (*Macadamia ternifolia*) and products thereof

Celery and products thereof

Mustard and products thereof

Sesame seeds and products thereof

Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO<sub>2</sub>.'

None of the above mentioned allergens or ingredients are present in any Super Lube® products in any amount.

I certify that the above is true and correct.

Kevin Wall

Operations Manager  
Synco Chemical Corporation

24 DaVinci Drive, PO Box 405, Bohemia, NY 11716-0405  
Phone (631) 567-5300, Fax (631) 567-5359  
www.super-lube.com e-mail: info@super-lube.com

