

MATERIAL SAFETY DATA SHEET



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EXTREME NUMBER ONE

EMERGENCY PHONE NO. (604) 575-6660

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WHMIS HAZARD INDEX:

DEGREE OF HAZARD:

HEALTH 1
FIRE 0
REACTIVITY 0
OTHER: B (GLASSES & GLOVES)

HAZARD RATING:

0 LEAST
1 SLIGHT
2 MODERATE
3 HIGH
4 EXTREME

SECTION 1

PRODUCT IDENTIFICATION

PRODUCT NAME:	EXTREME NUMBER ONE
CHEMICAL IDENTIFICATION:	Acrylamide, Acrylate Copolymer
MATERIAL USE:	Drilling Fluid Additive
WHMIS CLASSIFICATION:	Not Regulated
WORK PLACE HAZARD:	Not Applicable

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION:	Not Dangerous Goods
PACKAGE GROUP:	Not Applicable
CAS NUMBER:	Not Applicable
MSDS CODE:	Not Applicable

SECTION 2

HAZARDOUS INGREDIENTS

INGREDIENT:	None Considered Hazardous
PERCENTAGE:	Not Available
CAS NUMBER:	Not Available
LD (50):	Not Available
LC (50):	Not Available

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SECTION 3**PHYSICAL DATA**

APPEARANCE AND ODOUR:	Slight, mild odour, white, granular solid
DENSITY (SPECIFIC GRAVITY):	.80
BOILING POINT:	Not Available
MELTING POINT:	Not Available
SOLUBILITY:	Soluble
EVAPORATION RATE: (EE=1):	Not Available
VAPOUR PRESSURE: (MM HG):	Not Available
VAPOUR DENSITY: (AIR = 1):	Not Available

SECTION 4**FIRE AND EXPLOSION**

FLASHPOINT:	Not Applicable
FLAMMABLE LIMIT:	Not Available
AUTO IGNITION TEMP:	No Data
EXTINGUISHING MEDIA:	Dry Chemical, Carbon Dioxide, Foam
SPECIAL FIRE FIGHTING PROCEDURES:	Self-Contained Respirators For Fire Fighting Personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Products of incomplete combustion and oxides of nitrogen and carbon.

SECTION 5**REACTIVITY DATA**

STABILITY (THERMAL, LIGHT, ETC.):	Stable
INCOMPATIBILITY (CONDITIONS TO AVOID):	Strong oxidizing agents and highly alkaline solutions
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	None

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SECTION 6**HEALTH HAZARDS**

ROUTE OF ENTRY:

(X) SKIN

(X) EYE CONTACT

(X) INHALATION

(X) INGESTION

SKIN CONTACT:

May be minimally irritating to sensitive skin upon prolonged direct contact.

EYE CONTACT:

May be minimally irritating to eyes upon direct contact.

INHALATION:

May cause irritation to nose and throat.

SECTION 7**PREVENTATIVE MEASURES**

SKIN PROTECTION:

Impervious gloves, protective clothing as required
Goggles.

EYE PROTECTION:

VENTILATION:

General mechanical; 10 changes per hour.

RESPIRATORY PROTECTION:

Approved dust mask; MESA type

LEAK & SPILL PROCEDURE:

Ventilate area, wear rubber boots, gloves and a self-contained respirator if ventilation inadequate. Collect into waste container. wash site after pick up. Water solutions extremely slippery.

WASTE DISPOSAL:

Dispose in compliance with government regulations and local requirements.

STORAGE REQUIREMENTS:

Cool, dry area, away from oxidizing and reducing agents. Keep containers closed when not in use. Avoid prolonged contact when handling. Do not inhale dust.

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SECTION 8**FIRST AID MEASURES**

SKIN:	Wash thoroughly with soap and warm water
EYE:	Flush with water for at least 15 minutes. Seek medical attention.
INHALATION:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
INGESTION:	Do not induce vomiting. If conscious, dilute by giving two glasses of water. Seek medical attention.

SECTION 9**PREPARATION DATE**

DATE ISSUED:	APRIL 18, 2009
DATE REVISED:	JANUARY 01, 2012
BY:	PRODUCT SAFETY COMMITTEE

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ADDENDUM

SECTION 10ECOLOGICAL INFORMATION

ACUTE TOXICITY:

- Oral:
- Dermal:
- Inhalation:

LD50/oral/rat > 5000 mg/kg

The results of lab testing showed this material to be non-toxic even at high dose levels.

The product is not expected to be toxic by inhalation.

IRRITATION:

- Skin:
- Eyes:

The results of lab testing showed this material to be non-irritating to the skin.

Testing conducted according to the Draize technique showed the material produces no corneal or iridial effects and only slight transitory conjunctival effects similar to those which all granular materials have no conjunctivae.

SENSITIZATION:

The results of lab testing showed this material to be non-sensitizing.

CHRONIC TOXICITY:

The results of extensive lab testing did not reveal adverse health effects.

ECOTOXICITY

- Fish:
- Algae:

LC50 / Fathead minnows / 96 hours > 1000 mg/l

EC50 / Selenastrum capricornutum > 96 hours > 500 mg/l

Bioaccumulation:

The product is not expected to bioaccumulate.

Persistence / degradability:

Not readily biodegradable.

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NAPA® PREM PERF GEAR OIL SAE
80W-90 GEAR OIL NP75213

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE
COMPANY/UNDERTAKING**

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)

Product name	NAPA® PREM PERF GEAR OIL SAE 80W-90 GEAR OIL
Product code	NP75213
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, amber

CAUTION! PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND
CAUSE IRRITATION.

Potential Health Effects

Routes of exposure

Inhalation, Skin contact, Eye Contact, Ingestion

Eye contact

Unlikely to cause eye irritation or injury.

Skin contact

Unlikely to cause skin irritation or injury. Prolonged or repeated contact may dry
and crack the skin.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to
cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

It is possible to breathe this material under certain conditions of handling and use
(for example, during heating, spraying, or stirring). Breathing small amounts of this

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material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways)

Target Organs

No data

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

There are no data available for assessing risk to the fetus from maternal exposure to this material.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAF	64742-54-7	>=70-<80%

4. FIRST AID MEASURES

Eyes

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

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Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Do not induce vomiting. Give one glass of milk or water, and get medical attention immediately. If possible, do not leave victim unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Notes to physician

Hazards: Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, Carbon dioxide (CO₂), Foam, Water spray

Hazardous combustion products

carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorus, Hydrocarbons

Precautions for fire-fighting

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase

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fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid.

Flammability Class for Flammable Liquids
Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Methods for cleaning up

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

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Exposure controls

General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection

Wear resistant gloves (consult your safety equipment supplier).
Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Respiratory protection

Respiratory protection is not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	No data
Colour	amber
Odour	No data
Boiling point/boiling range	218.30 °C / 424.9 °F @ 760.00 mmHg
pH	No data
Flash point	(≥) 432 °F / 222 °C, Cleveland open cup
Evaporation rate	> 1 (Ethyl Ether)
Explosion limits	No data
Vapour pressure	0.10 mmHg
Vapour density	(>) 1 (AIR=1)
Density	0.8916 g/cm ³ @ 60.01 °F / 15.56 °C 7.28 lb/gal @ 60.1 °F / 15.6 °C
Solubility	No data
Partition coefficient: n-octanol/water	No data

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log Pow no data available
Autoignition temperature No data

10. STABILITY AND REACTIVITY

Stability

Stable

Conditions to avoid

None known.

Incompatible products

Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorus,
Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAF	LD 50 Rat: > 15 g/kg
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Acute inhalation toxicity

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAF	no data available
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Acute dermal toxicity

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAF	LD 50 Rabbit: > 5 g/kg
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12. ECOLOGICAL INFORMATION

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Aquatic toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

No data

Environmental fate and pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

Dangerous goods descriptions (if indicated above) may not reflect package size, quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

SARA Hazard Classification Acute Health Hazard

SARA 313 Component(s)

Reportable quantity - Components

DISTILLATES (PETROLEUM),
HYDROTREATED HEAVY PARAF

64742-54-7

none

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	Health	Flammability	Reactivity	Other
HMIS	1	1	0	
NFPA	1	1	0	

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

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		Date : 6 / 1 / 2014
		Supersedes : 0 / 0 / 0
Gulf Harmony AW 32		10103/32/1/6

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier	: Gulf Harmony AW 32
Viscosity Grade	: ISO VG 32
Product code Gulf Oil International	: 10103/32/1/6
Relevant identified uses of the substance or mixture and uses advised against	: Industrial hydraulic oil. This oil should not be used for any other purpose than the intended use as a hydraulic oil without expert advice.
Details of the supplier of the safety data sheet	: Gulf Oil Lubricants India Ltd, IN Centre, 12th Road, Marol, Andheri (East), Mumbai - 400 093
Emergency telephone number	: +91 22 66487777

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture	: Not classified as dangerous under EC criteria.
Most important adverse physico-chemical effects	: Combustible liquid
Most important adverse human health effects	: Prolonged or repeated skin contact with the material will remove natural oils and could lead to a dermatitis.
Most important adverse environmental effects	: No specific risk for the environment.

Label elements:

- safety advices	: Do not empty into drains; dispose of this material and its container in a safe way.
Other hazards	: Injection under the skin can occur when using high pressure equipment. Overexposure to oil mist may cause respiratory irritations. Oil mist deposited on surfaces may cause slip hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization		: Mixture of highly refined mineral oils and additives (PCA-content < 3% - IP 346)				
Substance name	Contents	CAS No	EC No	Annex No	Ref REACH	Classification
Zinc dialkyl dithiophosphate	: 0.36 - 0.66 %	68649-42-3	272-028-3	----	----	Xn; R30/38
Alkyl phenol	: 0.11 - 0.22 %	----	----	----	----	N; R50-53
Long chain alkenyl succinimide	: 0.06 - 0.11 %	----	----	----	----	
Calcium alkaryl sulfonate	: 0.006 - 0.011 %	----	----	----	----	Xn; R38-41
Aryl phosphine	: 0.0029 - 0.0055 %	----	----	----	----	Xn; R48/20/22 R49 N; R50-53

4. FIRST AID MEASURES

Description of first aid measures:

- after inhalation	: Assure fresh air breathing. If you feel unwell, seek medical advice.
- after contact with skin	: Remove contaminated clothing and shoes. Wash skin thoroughly with mild soap and water. Never use kerosine or gasoline for cleaning the skin.
- after contact with the eyes	: Rinse immediately with plenty of water. Seek medical attention if irritation develops.
- after ingestion	: Do not induce vomiting. Seek medical attention immediately.
- after injection	: If injected under the skin when using high pressure equipment, send casualty immediately to a hospital, even when there are few or no symptoms.

Gulf Oil International
16 Charles II St. SW1Y 4QU - London - United Kingdom

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SECTION 4. FIRST AID MEASURES (continued)

- Most important symptoms and effects, both acute and delayed** : Symptoms of overexposure to vapours include drowsiness, weakness, headache, dizziness, nausea, vomiting, dimming of vision.
- Indication of any immediate medical attention and special treatment needed** : High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. Often these injuries require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of the injury.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Water fog, Carbon dioxide, Foam, Dry chemical product.
- Extinguishing media which shall not be used for safety reasons** : Do not use a heavy water stream.
- Special hazards arising from the substance or mixture** : Under fire conditions, hazardous fumes will be present.
- Advice for firefighters** : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus, rubber boots and thick rubber gloves. Use water spray or fog for cooling exposed containers. Avoid fire-fighting water to enter environment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

- for non-emergency personnel** : Evacuate unnecessary personnel.
- for emergency responders** : Equip cleanup crew with proper protection. Wear suitable protective clothing, gloves and eye or face protection. Eliminate every possible source of ignition.
- Environmental precautions** : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Avoid release to the environment. Notify authorities if liquid enters sewers or public waters. Spill area may be slippery.
- Methods and material for containment and cleaning up** : Clean up any spills as soon as possible, using an absorbent material to collect it. Use suitable disposal containers.
- Reference to other sections** : See Heading 8 & 13.

7. HANDLING AND STORAGE

- Precautions for safe handling** : Keep away from sources of ignition. No naked lights. No smoking. Use only in well ventilated areas. Avoid release to the environment. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with soap and water before leaving work.
- Conditions for safe storage, including any incompatibilities** : Store this product in a dry location where it can be protected from the elements. Store in tightly closed, properly ventilated containers away from heat, sparks, open flame, strong oxidizers, radiations, and other initiators. Keep at temperature not exceeding 50°C.
- Specific end use(s)** : Industrial hydraulic oil.
This oil should not be used for any other purpose than the intended use as a hydraulic oil without expert advice.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limit values:

- Australia : National exposure standards for atmospheric contaminants in the occupational environment; Time-Weighted Average (normal eight-hour working day, for a five-day working week): 5 mg/m³ for oil mist, refined mineral. (National Occupational Health & Safety Commission [NOHSC: 1003(1995)])
- Canada : The American Conference of Governmental Industrial Hygienists (ACGIH) has assigned mineral oil mist a threshold limit value (TLV) of 5 mg/m(3) as a Time Weighted Average (TWA) for a normal 8-hour workday and a 40-hour workweek and a short-term exposure limit (STEL) of 10 mg/m(3) for periods not to exceed 15 minutes. Exposures at the STEL concentration should not be repeated more than four times a day and should be separated by intervals of at least 60 minutes. [ACGIH 1994, p. 28]
- EU : Occupational Exposure Standard (OES) of 5 mg/m³, 8-hour time-weighted average reference period for oil mist.
- USA : The American Conference of Governmental Industrial Hygienists (ACGIH) has assigned mineral oil mist a threshold limit value (TLV) of 5 mg/m(3) as a Time Weighted Average (TWA) for a normal 8-hour workday and a 40-hour workweek and a short-term exposure limit (STEL) of 10 mg/m(3) for periods not to exceed 15 minutes. Exposures at the STEL concentration should not be repeated more than four times a day and should be separated by intervals of at least 60 minutes. [ACGIH 1994, p. 28]

Occupational Exposure Limits

- Biological limit values : No data available

Exposure controls:

Individual protection measures, such as personal protective equipment:

- eye / face protection : Chemical goggles or safety glasses (EN 166)
- skin protection : Wear suitable protective clothing.
- hand protection : Wear suitable gloves resistant to chemical penetration. (EN 374)
- respiratory protection : The use of Filtertype A (EN 141) is recommended If exceeding the Occupational Exposure Limit.
- others : Do not wear leather soled shoes.
- Environmental exposure controls : Avoid release to the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

- physical state : Oily liquid.
- colour : Yellow-brown.
- odour : Light odour of petroleum.
- flash point : 202°C
- density @ 15°C : 870 kg/m³
- solubility in water : Insoluble.
- viscosity @ 40°C : 31.2 cSt
- pour point : -24°C
- Other information : See Product Data Sheet for detailed information.

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10. STABILITY AND REACTIVITY

Reactivity	: No data available.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: None under normal conditions.
Conditions to avoid	: Extremely high or low temperatures.
Incompatible materials	: Strong oxidizing agents.
Hazardous decomposition products	: None under normal conditions.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

- acute toxicity	: No specific toxicity data on this product available.
- irritation	: Not expected to be an irritant to eyes or skin. Inhalation of fumes or vapours may cause respiratory irritation.
- corrosivity	: No adverse health effects were noted.
- sensitisation	: No sensitization effects known.
- carcinogenicity	: This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
- mutagenicity	: Not expected to be mutagenetic.
- reproductive toxicity	: Not expected to be toxic.

Information on likely routes of exposure:

- after ingestion	: Ingestion may cause nausea, vomiting and diarrhoea.
- after inhalation	: Inhalation of vapours may cause respiratory irritation.
- after skincontact	: Prolonged or repeated skin contact with the material will remove natural oils and could lead to a dermatitis.
- after eyecontact	: Slight eye irritant upon direct contact.
Symptoms related to the physical, chemical and toxicological characteristics	: No adverse health effects were noted.
Delayed and immediate effects as well as chronic effects from short and long-term exposure	: No adverse health effects were noted.
Other toxicological information	: No data available.

12. ECOLOGICAL INFORMATION

Toxicity	: No specific ecotoxicity data on this product available.
Persistence and degradability	: Not determined.
Bioaccumulative potential	: No data available.
Mobility in soil	: It is to be expected small mobility in soil. Some or a few components may get into the soil and may cause pollution of ground water. Product spreads on the water surface.
Results of PBT and vPvB assessment	: Not applicable.
Other adverse effects	: May contaminate water supplies.
Biodegradation	: No data available.

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13. DISPOSAL CONSIDERATIONS

- | | |
|--------------------------------|---|
| Waste Disposal | : Dispose in a safe manner in accordance with local/national regulations. |
| Waste treatment methods | : See Directive 2001/118/EC |
| Waste Code European Waste List | : 13 02 05 - mineral-based non-chlorinated engine, gear and lubricating oils.
15 01 10 - packaging containing residues of or contaminated by dangerous substances. |

14. TRANSPORT INFORMATION

Not regulated.

15. REGULATORY INFORMATION

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

- | | |
|--|---|
| - Australian Inventory of Chemical Substances (AICS) | : All components are in compliance with chemical notification requirements in Australia. |
| - Canadian Environmental Protection Act (CEPA) | : All components are in compliance with the Canadian Environmental Protection Act (CEPA) and are present on the Domestic Substances List (DSL). |
| - European Inventory of Existing Commercial Chemical Substances (EINECS) | : All components listed. |
| - USA Toxic Substances Control Act (TSCA) | : All components of this material are on the US TSCA Inventory or are exempt. |
| - Germany | : Water Hazard Class: 1 - low hazard to waters |

16. OTHER INFORMATION

- | | |
|---|--|
| Revision Indicators | : None. |
| Key to abbreviations and acronyms used in the safety data sheet | : ACGIH = American Conference of Industrial Hygienists
CLP = Classification and Labelling of Substances and Preparations
EC = European Commission. EN = European Norm
IARC = International Agency for Research on Cancer
IP = Institute of Petroleum. ISO = International Organization for Standardization
NLGI = National Lubricating Grease Institute
PCA = Polycyclic Aromatics
TLV = Threshold Limit Value. TWA = Time Weighted Average
VG = Viscosity Grade |
| Key literature references and sources for data | : Concawe Report 01/53, Concawe Report 01/54, Concawe Report 05/87.
Regulations (EC) No 1907/2006, 1272/2008 & 453/2010 of the European Parliament and of the Council. |
| List of relevant R-phrases | : R36/38 : Irritating to eyes and skin.
R38 : Irritating to skin.
R41 : Risk of serious damage to eyes.
R43 : May cause sensitization by skin contact.
R49/20/22 : Harmful : danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| Training advice | : See information supplied by the manufacturer. |

The contents and format of this SDS are in accordance with COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this

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		Supersedes : 0 / 0 / 0
Gulf Harmony AW 32		10103/32/1/6

product. If the product is used as a component in another product, this SDS information may not be applicable.

End of document

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Kingdom

Product Name: MOBIL 1 ESP FORMULA 5W-30
 Revision Date: 28 Feb 2020
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SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: MOBIL 1 ESP FORMULA 5W-30
Product Description: Synthetic Base Stocks and Additives
Product Code: 2015101010KD, 476341-85
Intended Use: Engine oil

COMPANY IDENTIFICATION

Supplier: East Coast Lubes Pty Ltd (Queensland and Northern Territory)
 A.B.N. 37 117 203 611
 Cnr North and Mort Streets
 Toowoomba, Queensland 4350 Australia

24 Hour Emergency Telephone 1300 131 001

Supplier General Contact 1800 069 019

Supplier: Southern Cross Lubes (Victoria and Tasmania, New South Wales and Australian Capital Territory)
 58-66 Ajax Road
 Altona, Victoria 3018, Australia

24 Hour Emergency Telephone 1300 131 001

Product Technical Information 1300 466 245

Supplier General Contact 1300 552 861

Supplier: Perkal Pty Ltd Trading as Statewide Oil (Western Australia)
 A.B.N. 43 009 283 363
 14 Beete Street
 Welshpool, Western Australia 6106 Australia

24 Hour Emergency Telephone (8:00am to 4:30pm Mon to Fri) 1300 919 904

Product Technical Information (08) 9350 6777

Supplier General Contact (08) 9350 6777

Supplier: Perkal Pty Ltd Trading as Statewide Oil (South Australia)
 A.B.N. 43 009 283 363
 6-10 Streliff Rd
 Wingfield, South Australia 5013 Australia

24 Hour Emergency Telephone (8:00am to 4:30pm Mon to Fri) 1300 919 904

Product Technical Information (08) 8359 8995

Supplier General Contact (08) 8359 8995

Product Name: MOBIL 1 ESP FORMULA 5W-30
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SECTION 2 HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

Contains: C14-16-18 ALKYL PHENOL May produce an allergic reaction.

Other hazard information:

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:

No significant hazards.

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.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
C14-16-18 ALKYL PHENOL	Confidential	0.1 - < 1%	H317, H373
POLYOLEFIN POLYAMINE SUCCINIMIDE	147880-09-9	1 - < 5%	None

*All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Other ingredients determined not to be hazardous up to 100%.

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

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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.

NOTE TO PHYSICIAN

None

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) 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]: >200°C (392°F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0

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.

Product Name: MOBIL 1 ESP FORMULA 5W-30
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SPILL MANAGEMENT

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

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.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

Avoid contact with used product. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

STORAGE

The type of container used to store the material may affect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep away from incompatible materials.

Material is defined under the National Standard [NOHSC:1015] Storage and Handling of Workplace Dangerous Goods.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product:

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

Biological limits

No biological limits allocated.

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:

Particulate

No special requirements under ordinary 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:

Nitrile, Viton

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

Product Name: MOBIL 1 ESP FORMULA 5W-30
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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: Liquid
Form: Clear
Colour: Amber
Odour: Characteristic
Odour Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.851
Flammability (Solid, Gas): N/A
Flash Point [Method]: >200 °C (392 °F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: N/D
Boiling Point / Range: N/D
Decomposition Temperature: N/D
Vapour Density (Air = 1): > 2 at 101 kPa
Vapour Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
Solubility in Water: Negligible
Viscosity: 72.8 cSt (72.8 mm²/sec) at 40 °C | 12.1 cSt (12.1 mm²/sec) at 100 °C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
Pour Point: -36 °C (-33 °F)

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

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

INCOMPATIBLE MATERIALS: Strong oxidisers

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

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for	Minimally Toxic. Based on assessment of the components.

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material.	
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin	
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.
Eye	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
Sensitisation	
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.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
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, this formulation, or similar formulations.

Diesel engine oils: Not carcinogenic in animals tests. Used and unused diesel engine oils did not produce any carcinogenic effects in chronic mouse skin painting studies. Oils that are used in gasoline engines may become hazardous and display the following properties: Carcinogenic in animal tests. Caused mutations in vitro. Possible allergen and photoallergen. Contains polycyclic aromatic compounds (PAC) from combustion products of gasoline and/or thermal degradation products.

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.

IARC Classification:

The following ingredients are cited on the lists below: None.

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1 = IARC 1 --REGULATORY LISTS SEARCHED--
 2 = IARC 2A 3 = IARC 2B

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

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.

SECTION 13 DISPOSAL CONSIDERATIONS

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. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

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.

SECTION 14 TRANSPORT INFORMATION

LAND (ADG) : Not Regulated for Land Transport

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

Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

This material is not considered hazardous according to Australia Model Work Health and Safety Regulations.

Product is not regulated according to Australian Dangerous Goods Code.

No Poison Schedule number allocated by the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act.

AS1940 COMBUSTIBLE CLASS: C2

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories (May contain substance(s) subject to notification to the EPA Active TSCA inventory prior to import to USA): AIC, DSL, ENCS, IECSC, KECI, PICCS, TCSI, TSCA

SECTION 16 OTHER INFORMATION

KEY TO ABBREVIATIONS AND ACRONYMS:

N/D = Not determined, N/A = Not applicable, STEL = Short-Term Exposure Limit, TWA = Time-Weighted Average

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

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

H373: May cause damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 2

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

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Composition: Component Table information was modified.

Composition: No components information was added.

Composition: No components information was deleted.

Section 15: National Chemical Inventory Listing information was modified.

The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to



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DGN: 7053753DAU (1009979)

Prepared by: Exxon Mobil Corporation
EMBSI, Clinton NJ USA
Contact Point: See Section 1 for Local Contact number

End of (M)SDS

Safety Data Sheet



SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Delo 400 LE SAE 15W-40

Product Use: Heavy Duty Motor Oil
Product Number(s): 219719, 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: 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
Zinc alkyl dithiophosphate	68649-42-3	1 - <2.5 %weight

SECTION 4 FIRST AID MEASURES

Revision Number: 9
Revision Date: January 20, 2020

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Delo 400 LE SAE 15W-40
SDS : 17108

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 (H₂S) 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, H₂S 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: Not classified

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 H₂S, see Chevron MSDS No. 301.

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: Phosphorus, Zinc, Sulfur.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Revision Number: 9
Revision Date: January 20, 2020

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Delo 400 LE SAE 15W-40
SDS : 17108

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 (H₂S) 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 H₂S is present. See Exposure Controls/Personal Protection -Section 8. Do not attempt rescue of a person over exposed to H₂S 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 H₂S, 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.

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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 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	Form	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: Light to Brown
Physical State: Liquid
Odor: Petroleum odor
Odor Threshold: No data available
pH: Not Applicable
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: Not Applicable
Melting Point: No data available
Density: 0.877 kg/l @ 15°C (59°F) (Typical)
Viscosity: 14.60 mm2/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): Not Applicable

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: Alkyl Mercaptans (Elevated temperatures), Hydrogen Sulfide (Elevated temperatures)

Hazardous Polymerization: Hazardous polymerization will not occur.

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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 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: NOT REGULATED AS HAZARDOUS MATERIAL UNDER 49 CFR

IMO/MDG 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: Not applicable

REGULATORY LISTS SEARCHED:

01-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 06, 07

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: EINECS (European Union), ENCS (Japan), IECSC (China), TCSI (Taiwan).

NEW JERSEY RTK CLASSIFICATION:

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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).

REVISION STATEMENT: SECTION 02 - Environmental Classification information was added.
SECTION 02 - Hazard Statements information was added.
SECTION 02 - Hazards Otherwise Not Classified information was modified.
SECTION 02 - Precautionary Statements information was added.
SECTION 03 - Composition information was modified.
SECTION 08 - General Considerations information was modified.
SECTION 09 - Physical/Chemical Properties information was deleted.
SECTION 09 - Physical/Chemical Properties information was modified.
SECTION 12 - Ecological Information information was modified.
SECTION 15 - Chemical Inventories information was modified.
SECTION 15 - New Jersey Right To Know information was modified.
SECTION 15 - Regulatory Information information was added.

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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.

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USED OIL

MATERIAL SAFETY DATA SHEET



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: USED OIL

SYNONYMS: Waste oil; Used lubricating oil; Oil and water mixture

**PRODUCT PART
NUMBER(S):** Not applicable.

PRODUCT USE: Oil or water mixture for re-refining or reprocessing.
If this product is used in combination with other products, refer to the
Material Safety Data Sheets for those products.

These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.	24-HOUR EMERGENCY PHONE NUMBERS
	MEDICAL AND TRANSPORTATION (SPILL): 1-800-468-1760

MANUFACTURER/ SUPPLIER: Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1 then Extension 7500

MSDS FORM NUMBER: 81451 **ISSUE:** September 20, 2007

ORIGINAL ISSUE: January 15, 1990 **SUPERSEDES:** June 11, 2007

PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force

USED OIL MATERIAL SAFETY DATA SHEET

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%	NAME	SYNONYM	CAS NO.	OSHA PEL		ACGIH TLV®		LD ^a	LC ^b
				TWA	STEL	TWA	STEL		
80 to 100	Lubricating oils, used	Used oil	70514-12-4	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 20*	Water/solids	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 10*	Hydrocarbon solvents. May include gasoline, diesel fuel, jet fuel, mineral spirits, etc.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 1.5*	Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel, and others: each below 1.0 WT%.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 1.0*	Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3 WT%.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 0.5*	Chlorinated solvents.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.

N. Av. = Not Available *Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD₅₀ (mg/kg)
^bInhalation-Rat LC₅₀

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE

Liquid, black and viscous (thick), petroleum odor.

WARNING!

PHYSICAL HAZARDS

Combustible liquid.

HEALTH HAZARDS

May be harmful if inhaled.

May be harmful if absorbed through skin.

May be harmful or fatal if swallowed.

May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.

Suspect cancer hazard. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

Contains material which can cause birth defects.

Contains material which can cause central nervous system damage.

ENVIRONMENTAL HAZARDS

Product may be toxic to fish, plants, wildlife, and/or domestic animals.

**USED OIL
MATERIAL SAFETY DATA SHEET**

POTENTIAL HEALTH EFFECTS

Effects may vary depending on material composition. Typical effects may include:

INHALATION (BREATHING): High concentrations of vapor or mist may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES: May cause irritation.

SKIN: May cause irritation. Product may be absorbed through the skin and cause harm as noted under **INHALATION (BREATHING)**.

INGESTION (SWALLOWING): May be harmful or fatal if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing cardiovascular, liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause oil pneumonia, lung tissue inflammation, fibrous tissue formation, and/or toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

CANCER INFORMATION: This product contains mineral oils, untreated or mildly treated, which can cause cancer. This product may contain hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics which can cause cancer. Risk of cancer depends on duration and level of exposure. For more information, see **SECTION 11: CARCINOGENICITY**.

POTENTIAL ENVIRONMENTAL EFFECTS

Product may be toxic to fish, plants, wildlife, and/or domestic animals.

Also see **SECTION 12: ECOLOGICAL INFORMATION**.

**USED OIL
MATERIAL SAFETY DATA SHEET**

SECTION 4: FIRST AID MEASURES

**INHALATION:
(BREATHING)** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

SKIN: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

**INGESTION:
(SWALLOWING)** Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information.
If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.

**NOTE TO
PHYSICIANS:** Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: >200°F (93°C) (minimum) Pensky-Martens Closed Cup

FLAMMABLE LIMITS IN AIR: Not available.

**AUTOIGNITION
TEMPERATURE:** Not available.

**HAZARDOUS COMBUSTION
PRODUCTS:** Decomposition and combustion materials may be toxic.
Burning may produce phosgene gas, nitrogen oxides, carbon monoxide, and unidentified organic compounds.

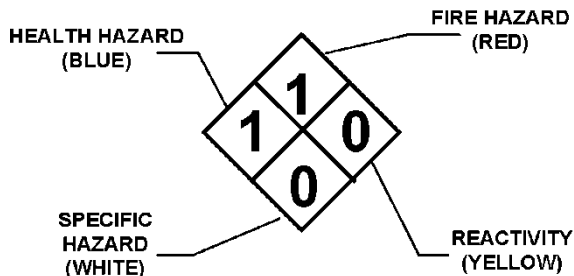
**CONDITIONS OF
FLAMMABILITY:** Heat, sparks, or flame. Product may burn but does not ignite readily.

EXTINGUISHING MEDIA: Use carbon dioxide, regular foam, dry chemical, water spray, or water fog.

USED OIL MATERIAL SAFETY DATA SHEET

NFPA 704 HAZARD IDENTIFICATION:

This information is intended solely for the use by individuals trained in this system.



FIRE FIGHTING INSTRUCTIONS:

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:

Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface waters and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **SECTION 15: REGULATORY INFORMATION**.

**USED OIL
MATERIAL SAFETY DATA SHEET**

SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, storage tanks, tanker trucks, and rail tank cars should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORT INFORMATION** for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use general ventilation, process enclosures, local exhaust ventilation, or other engineering controls to control air-borne levels. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

EYE PROTECTION: Wearing chemical goggles is recommended.
Contact lens may be worn with eye protection.

SKIN PROTECTION: Where prolonged or repeated skin contact is likely, wear neoprene, nitrile (4 mil minimum), PVC (polyvinyl chloride), or equivalent protective gloves; wearing natural rubber or equivalent gloves is not recommended.

When product is heated and skin contact is likely, wear heat-insulating gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

**USED OIL
MATERIAL SAFETY DATA SHEET**

PERSONAL HYGIENE: Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with the product.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR: Liquid, black and viscous (thick), petroleum odor.

ODOR THRESHOLD: Not available.

MOLECULAR WEIGHT: Not applicable.

SPECIFIC GRAVITY: 0.8 to 1.0 at 60°F (15.6°C) (water = 1)

DENSITY: 6.7 to 8.3 LB/US gal (800 to 1000 g/l) (approximately)

VAPOR DENSITY: greater than 1 (air = 1) (based on kerosene)

VAPOR PRESSURE: Not available.

BOILING POINT: Not available.

FREEZING/MELTING POINT: Not available.

pH: Not applicable.

EVAPORATION RATE: less than 1 (butyl acetate = 1)

SOLUBILITY IN WATER: Slight.

FLASH POINT: >200°F (93°C) (minimum) Pensky-Martens Closed Cup

FLAMMABLE LIMITS IN AIR: Not available.

AUTOIGNITION TEMPERATURE: Not available.

**USED OIL
MATERIAL SAFETY DATA SHEET**

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.
INCOMPATIBILITY:	Avoid acids, alkalis, oxidizing agents, reducing agents, reactive halogens, or reactive metals.
REACTIVITY:	Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal temperatures and pressures. Also see SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

SECTION 11: TOXICOLOGICAL INFORMATION
--

SENSITIZATION:	Based on best current information, there may be known human sensitization associated with this product.
MUTAGENICITY:	Based on best current information, there may be mutagenicity associated with this product.
CARCINOGENICITY:	Mineral oils, untreated or mildly treated are listed by IARC as a known carcinogen. Mineral oils, untreated or mildly treated are classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are listed by OSHA as known carcinogens. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are listed by IARC as known, probable, or possible carcinogens. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are classified by NTP as known carcinogens or as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are recognized by ACGIH as confirmed or suspected human carcinogens.

Also see **SECTION 3: CANCER INFORMATION.**

**USED OIL
MATERIAL SAFETY DATA SHEET**

REPRODUCTIVE TOXICITY: Based on best current information, there may be reproductive toxicity associated with this product.

TERATOGENICITY: Based on best current information, there may be teratogenicity associated with this product.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there may be toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: Not available.
As per 40 CFR Part 51.100(s).

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated.

TDG: Not regulated.

EMERGENCY RESPONSE GUIDE NUMBER: Not applicable.
Reference *North American Emergency Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS SARA SECTIONS 302 AND 304: Based on the ingredient(s) listed in **SECTION 2**, this product does not contain 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.

**USED OIL
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SARA SECTIONS 311 AND 312:	This product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA): Immediate (Acute) Health Hazard Delayed (Chronic) Health Hazard
SARA SECTION 313:	This product may contain "toxic" chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.
CERCLA:	This product may contain "hazardous substances" listed pursuant to Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.
TSCA:	Not available.
CALIFORNIA:	This product is not for sale or use in the State of California.
CANADIAN REGULATIONS WHMIS:	Not regulated
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):	Not available.

SECTION 16: OTHER INFORMATION

REVISION INFORMATION: Change from MSIS to MSDS.

LABEL/OTHER INFORMATION: Not available.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product as supplied to the user.



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SAFETY DATA SHEET

PROPANE

000003000646



Version 3.0

Revision Date 2020/01/27

Print Date 2020/01/27

SECTION 1. IDENTIFICATION

Product name : PROPANE

Synonyms : Propane HD-5, Propane commercial, Liquefied Petroleum Gas (LPG), C₃H₈, CGSB Propane Grade 1, CGSB Propane Grade 2, odorized propane, stench propane, automotive propane, ER62.

Product code : 100139

Manufacturer or supplier's details
Petro-Canada
P.O. Box 2844, 150 - 6th Avenue South-West
Calgary Alberta T2P 3E3
Canada

Emergency telephone number : CHEMTREC: 1-800-424-9300 (toll free) or +1 703-527-3887;
Suncor Energy: +1 403-296-3000

Recommended use of the chemical and restrictions on use

Recommended use : Propane is used as a fuel gas, refrigerant and as a raw material for organic synthesis. It is also used as a laboratory gas. The grade determines the propane content. It is supplied as pressurized liquid in tanks.

Prepared by : Product Safety: +1 905-804-4752

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Gas at room temperature; liquid when stored under pressure., compressed liquefied gas
Colour	colourless
Odour	Propane is an odourless gas. Odourized propane will contain up to 30 g Ethyl Mercaptan per 1000 L of propane.

GHS Classification

Flammable gases : Category 1

Gases under pressure : Liquefied gas

Simple Asphyxiant : Category 1

GHS label elements

SAFETY DATA SHEET

PROPANE

000003000646



Version 3.0

Revision Date 2020/01/27

Print Date 2020/01/27

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

Precautionary statements

: **Prevention:**
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Response:
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
In case of leakage, eliminate all ignition sources.
Storage:
Protect from sunlight. Store in a well-ventilated place.

Potential Health Effects

Primary Routes of Entry

: Eye contact
Inhalation
Skin contact

Aggravated Medical Condition

: None known.

Other hazards

None known.

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

Substance / Mixture

: Mixture

Hazardous components

Chemical name	CAS-No.	Concentration
propane	74-98-6	90 - 100 %
propene	115-07-1	1 - 5 %
butane	106-97-8	1 - 2.5 %

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ethane	74-84-0	1 - 1.5 %
methane	74-82-8	0.1 - 0.2 %

All above concentrations are percent by volume.

SECTION 4. FIRST AID MEASURES

- If inhaled : Move to fresh air.
Artificial respiration and/or oxygen may be necessary.
Seek medical advice.
- In case of skin contact : 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 contaminated clothing before reuse.
Seek medical advice.
- In case of eye contact : Remove contact lenses.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Not a significant route of exposure.
- Most important symptoms and effects, both acute and delayed : Inhalation may cause central nervous system effects.
Inhalation of vapours may cause drowsiness, headache, dizziness and disorientation.
May cause irritation of respiratory tract.
Contact with rapidly expanding gas may cause burns or frost-bite.
Overexposure may lead to cardiac sensitization.
High concentrations can remove oxygen and cause dizziness or suffocation.
- Notes to physician : Treat symptomatically.
Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No information available.
- Specific hazards during fire-fighting : If the product release cannot be shut off safely, allow the product to burn itself out.
Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO₂), smoke and irritating vapours as products of incomplete combustion.

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- | | |
|---|---|
| Further information | : Prevent fire extinguishing water from contaminating surface water or the ground water system. |
| Special protective equipment for firefighters | : Wear self-contained breathing apparatus and full protective wear.
Wear a positive-pressure supplied-air respirator with full face-piece. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
In case of inadequate ventilation wear respiratory protection.
Remove all sources of ignition. |
| Environmental precautions | : If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : Prevent further leakage or spillage if safe to do so.
Ensure adequate ventilation.
Use explosion-proof ventilation equipment.
Non-sparking tools should be used.
Contact the proper local authorities. |

SECTION 7. HANDLING AND STORAGE

- | | |
|-----------------------------|--|
| Advice on safe handling | : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
In case of insufficient ventilation, wear suitable respiratory equipment.
Avoid contact with skin, eyes and clothing.
Avoid breathing gas.
Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.
Use only with adequate ventilation.
Keep away from heat and sources of ignition.
Keep container closed when not in use.
Do not use sparking tools.
Do not enter areas where used or stored until adequately ventilated. |
| Conditions for safe 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.
Keep away from sources of ignition - No smoking.
Ensure the storage containers are grounded/bonded. |

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
propane	74-98-6	TWA	1,000 ppm	CA AB OEL
		TWA	1,000 ppm	CA BC OEL
		TWAEV	1,000 ppm 1,800 mg/m3	CA QC OEL
propene	115-07-1	TWA	500 ppm 860 mg/m3	CA AB OEL
		TWA	500 ppm	CA BC OEL
		TWA	500 ppm	ACGIH
butane	106-97-8	TWA	1,000 ppm	CA AB OEL
		TWA	600 ppm	CA BC OEL
		STEL	750 ppm	CA BC OEL
		TWAEV	800 ppm 1,900 mg/m3	CA QC OEL
		STEL	1,000 ppm	ACGIH
ethane	74-84-0	TWA	1,000 ppm	CA AB OEL
		TWA	1,000 ppm	CA BC OEL

Engineering measures : Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.
Use only in well-ventilated areas.
Use explosion-proof ventilation equipment.

Personal protective equipment

Respiratory protection : 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 : Always wear NIOSH-approved self-contained breathing apparatus when handling this material.

Hand protection
Material : Wear insulated gloves to prevent frostbite. Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

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.

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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. Wear suitable protective equipment.
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	: Gas at room temperature; liquid when stored under pressure., compressed liquefied gas
Colour	: colourless
Odour	: Propane is an odourless gas. Odourized propane will contain up to 30 g Ethyl Mercaptan per 1000 L of propane.
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: -42 °C (-44 °F)
Decomposition temperature	: No data available
Flash point	: -104 °C (-155 °F) Method: closed cup
Auto-Ignition Temperature	: 450 °C (842 °F)
Evaporation rate	: No data available
Flammability	: Extremely flammable in presence of open flames, sparks, and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. Rapid escape of vapour may generate static charge causing ignition. May accumulate in confined spaces.
Upper explosion limit	: 9.5 %(V)
Lower explosion limit	: 2.1 %(V)
Vapour pressure	: 10,763 mmHg (38 °C / 100 °F)
Relative vapour density	: 1.56

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Relative density	: No data available
Solubility(ies)	
Water solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Viscosity	
Viscosity, kinematic	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Reactive with oxidising agents and halogenated compounds.
Hazardous decomposition products	: May release CO _x , smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Inhalation
Skin contact

Acute toxicity

Product:

Acute oral toxicity	: Remarks: Based on available data, the classification criteria are not met.
Acute inhalation toxicity	: Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	: Remarks: Based on available data, the classification criteria are not met.

Components:

butane:

Acute inhalation toxicity	: LC50 (Rat): 658 mg/l
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Exposure time: 4 h
Test atmosphere: gas

Skin corrosion/irritation

Product:

Remarks: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

Remarks: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Product:

Remarks: Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

Germ cell mutagenicity-
Assessment

Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Carcinogenicity - As-
sessment

Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Reproductive toxicity -
Assessment

Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

No data available

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available
Toxicity to algae	:	Remarks: No data available
Toxicity to bacteria	:	Remarks: No data available

Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available
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Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	The product should not be allowed to enter drains, water courses or the soil. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste must be classified and labelled prior to recycling or disposal. Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations. Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.
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SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1978
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Proper shipping name : Propane
Class : 2.1
Packing group : Not assigned by regulation
Labels : Class 2 - Gases: Flammable (Division 2.1)
Packing instruction (cargo aircraft) : 200

IMDG-Code

UN number : UN 1978
Proper shipping name : PROPANE

Class : 2.1
Packing group : Not assigned by regulation
Labels : 2.1
EmS Code : F-D, S-U
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

National Regulations

TDG

UN number : UN 1978
Proper shipping name : PROPANE

Class : 2.1
Packing group : Not assigned by regulation
Labels : 2.1
ERG Code : 115
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

The components of this product are reported in the following inventories:

DSL On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

For Copy of SDS : Internet: www.petro-canada.ca/msds
Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228
For Product Safety Information: 1 905-804-4752

Prepared by : Product Safety: +1 905-804-4752

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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.

**PURELL® Instant Hand Sanitizer**

Version 1.0

SDS Number: 400000000469

Revision Date: 01/31/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PURELL® Instant Hand Sanitizer

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron, Ohio 44311

Telephone : 1 (330) 255-6000

Emergency telephone number : 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

Prepared by :

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Physical state	liquid
Colour	clear, colourless, light yellow
Odour	citrus

GHS Classification

Flammable liquids : Category 3

Eye irritation : Category 2A

GHS label elements

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Hazard pictograms



Signal word

: Warning

Hazard statements

: H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.

Precautionary statements

Prevention:
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P280 Wear eye protection/ face protection.

Response:
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
 P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Primary Routes of Entry

: Inhalation
Eye contact
Skin contact

Aggravated Medical Condition

: None known.

Carcinogenicity:

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous components**

Chemical name	CAS-No.	Concentration (%)
Ethyl Alcohol	64-17-5	>= 50 - < 70



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Isopropyl Alcohol

67-63-0

>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- | | |
|---|--|
| General advice | : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice. |
| If inhaled | : If inhaled, remove to fresh air.
If symptoms persist, call a physician. |
| In case of skin contact | : Wash with water and soap as a precaution.
Get medical attention if irritation develops and persists. |
| In case of eye contact | : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Seek medical advice. |
| If swallowed | : If swallowed, DO NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention. |
| Most important symptoms and effects, both acute and delayed | : Causes serious eye irritation. |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection and use the recommended protective clothing |

SECTION 5. FIREFIGHTING MEASURES

- | | |
|--------------------------------------|---|
| Suitable extinguishing media | : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | : High volume water jet |
| Specific hazards during firefighting | : Do not use a solid water stream as it may scatter and spread fire.
Flash back possible over considerable distance.
May form explosive mixtures in air.
Carbon oxides |
| Hazardous combustion products | : Carbon oxides |
| Specific extinguishing methods | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers. |
| Further information | : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. |

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Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Material can create slippery conditions.

Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Non-sparking tools should be used.
Soak up with inert absorbent material.
Suppress (knock down) gases/vapours/mists with a water spray jet.
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8.
Keep away from heat.
Use with local exhaust ventilation.
Avoid contact with eyes.

Conditions for safe storage : Take measures to prevent the build up of electrostatic charge.
Keep in properly labelled containers.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethyl Alcohol	64-17-5	TWA	1,000 ppm 1,880 mg/m ³	CA AB OEL
		STEL	1,000 ppm	CA BC OEL

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		TWAEV	1,000 ppm 1,880 mg/m3	CA QC OEL
		STEL	1,000 ppm	ACGIH
Isopropyl Alcohol	67-63-0	TWA	200 ppm 492 mg/m3	CA AB OEL
		STEL	400 ppm 984 mg/m3	CA AB OEL
		TWA	200 ppm	CA BC OEL
		STEL	400 ppm	CA BC OEL
		TWAEV	400 ppm 983 mg/m3	CA QC OEL
		STEL	500 ppm 1,230 mg/m3	CA QC OEL
		TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Isopropyl Alcohol	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection	: No personal respiratory protective equipment normally required.
Hand protection	
Remarks	: No special protective equipment required.
Eye protection	: Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: No special measures necessary provided product is used correctly.
Protective measures	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Ensure that eye flushing systems and safety showers are located close to the working place.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: clear, colourless, light yellow

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Odour	: citrus
Odour Threshold	: No data available
pH	: 6.0 - 9.2, (20 °C)
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: 25.00 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 0.8933 g/cm ³
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: No data available
Thermal decomposition	: The substance or mixture is not classified self-reactive.
Viscosity	
Viscosity, kinematic	: 1000 - 35000 mm ² /s (20 °C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks.



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Incompatible materials : Strong oxidizing agents
Flammable solids
Self-reactive substances and mixtures
Water-reactive substances

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Eye contact
Skin contact

Acute toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Isopropyl Alcohol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 72.6 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Ethyl Alcohol:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Isopropyl Alcohol:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Ethyl Alcohol:

Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405



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Isopropyl Alcohol:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

Ethyl Alcohol:

Test Type: Local lymph node assay (LLNA)

Exposure routes: Skin contact

Species: Mouse

Result: negative

Isopropyl Alcohol:

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

Germ cell mutagenicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Test species: Mouse
Application Route: Ingestion
Result: negative

Isopropyl Alcohol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Test species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Isopropyl Alcohol:

Species: Rat

Application Route: inhalation (vapour)

Exposure time: 104 weeks

Method: OECD Test Guideline 451

Result: negative



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Reproductive toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Isopropyl Alcohol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal
development

: Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

STOT - single exposure

Not classified based on available information.

Components:

Isopropyl Alcohol:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Ethyl Alcohol:

Species: Rat
NOAEL: 2,400 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Isopropyl Alcohol:

Species: Rat
NOAEL: 5000 ppm
Application Route: inhalation (vapour)
Exposure time: 104 w
Method: OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

**PURELL® Instant Hand Sanitizer**

Version 1.0

SDS Number: 400000000469

Revision Date: 01/31/2017

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Ethyl Alcohol:**

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h
- Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 9.6 mg/l
Exposure time: 9 d
- Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 32.1 mg/l
Exposure time: 0.25 h

Isopropyl Alcohol:

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 24 h
- Toxicity to bacteria : EC50 (Pseudomonas putida): > 1,050 mg/l
Exposure time: 16 h

Persistence and degradability**Components:****Ethyl Alcohol:**

- Biodegradability : Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

Isopropyl Alcohol:

- Biodegradability : Result: rapidly degradable

Bioaccumulative potential**Components:****Ethyl Alcohol:**

- Partition coefficient: n-octanol/water : log Pow: -0.35

Isopropyl Alcohol:

- Partition coefficient: n-octanol/water : log Pow: 0.05

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Revision Date: 01/31/2017

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**International Regulation****IATA-DGR**

UN/ID No. : UN 1987
Proper shipping name : Alcohols, n.o.s.
(Ethanol, Propan-2-ol)
Class : 3
Packing group : III
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.
(Ethanol, Propan-2-ol)
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D
Marine pollutant : no

National Regulations**TDG**

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.
(Ethanol, Propan-2-ol)
Class : 3
Packing group : III
Labels : 3
ERG Code : 127
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

**PURELL® Instant Hand Sanitizer**

Version 1.0

SDS Number: 400000000469

Revision Date: 01/31/2017

WHMIS Classification : B2: Flammable liquid
D2B: Toxic Material Causing Other Toxic Effects

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:

TSCA : On TSCA Inventory
AICS : On the inventory, or in compliance with the inventory
DSL : On the inventory, or in compliance with the inventory
ENCS : On the inventory, or in compliance with the inventory
ISHL : On the inventory, or in compliance with the inventory
KECI : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or in compliance with the inventory
IECSC : On the inventory, or in compliance with the inventory
NZIoC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

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.

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EXTREME ROD GREASE

EMERGENCY PHONE NO. (604) 575-6660

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WHMIS HAZARD INDEX:

DEGREE OF HAZARD:

HEALTH 0
FIRE 1
REACTIVITY 0
OTHER: A (GLASSES & GLOVES)

HAZARD RATING:

0 LEAST
1 SLIGHT
2 MODERATE
3 HIGH
4 EXTREME

SECTION 1

PRODUCT IDENTIFICATION

PRODUCT NAME: EXTREME ROD GREASE
CHEMICAL IDENTIFICATION: Petroleum Hydrocarbon
MATERIAL USE: Thick composition, industrial lubricant
WHMIS CLASSIFICATION: Not controlled
WORK PLACE HAZARD: Not applicable

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION: Not dangerous goods
PACKAGE GROUP: Not applicable
CAS NUMBER: Not applicable
MSDS CODE: Not applicable

SECTION 2

HAZARDOUS INGREDIENTS

INGREDIENT: Mixture of hydrotreated neutral base oil and additives
PERCENTAGE: 100%
CAS NUMBER: Not applicable
LD (50): Acute oral toxicity (Rat): 5000 Mg/Kg
LC (50): Not determined
TLV-TWA: 5 Mg/m³ (Oil Mist)

EXTREME ROD GREASE

MATERIAL SAFETY DATA SHEET

SECTION 3**PHYSICAL DATA**

APPEARANCE AND ODOUR:	Long fibered grease, greenish brown colour, mild grease like odour.
DENSITY (SPECIFIC GRAVITY):	.89
BOILING POINT:	260°C
MELTING POINT:	Not available
SOLUBILITY:	Insoluble in cold water, soluble in non-polar hydrocarbon solvents.
EVAPORATION RATE: (EE=1):	Not available
VAPOUR PRESSURE: (MM HG):	0.0075 @ 20°C
VAPOUR DENSITY: (AIR = 1):	Not available

SECTION 4**FIRE AND EXPLOSION**

FLASHPOINT:	252°C
FLAMMABLE LIMIT:	Not available
AUTO IGNITION TEMP:	316°C
EXTINGUISHING MEDIA:	Dry chemical, foam, CO ₂ , water spray, fog
SPECIAL FIRE FIGHTING PROCEDURES:	None required
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None

SECTION 5**REACTIVITY DATA**

STABILITY (THERMAL, LIGHT, ETC.):	Stable
INCOMPATIBILITY (CONDITIONS TO AVOID):	Avoid excessive heat, highly reactive with oxidizing agents.
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of carbon and nitrogen, irritating fumes and smoke as products of incomplete combustion.

MATERIAL SAFETY DATA SHEET

EXTREME ROD GREASE

SECTION 6**HEALTH HAZARDS**

ROUTE OF ENTRY:

(X) SKIN

(X) EYE CONTACT

(X) INHALATION

(X) INGESTION

SKIN CONTACT:

EYE CONTACT:

INHALATION:

INGESTION:

Non-irritating; for prolonged exposure wear gloves.

May irritate the eyes

Low vapour pressure, not expected to present inhalation exposure under normal conditions.

Low toxicity on ingestion; has laxative effect and rapidly eliminated.

SECTION 7**PREVENTATIVE MEASURES**

SKIN PROTECTION:

EYE PROTECTION:

VENTILATION:

RESPIRATORY PROTECTION:

LEAK & SPILL PROCEDURE:

WASTE DISPOSAL:

STORAGE REQUIREMENTS:

None normally required. Personal preference suggest gloves, boots and long sleeved clothing.

Wear safety glasses/goggles.

No special ventilation required for normal conditions.

None normally required. If mist generated by heating or spraying wear an organic vapour respirator with mist filter.

Contain spill. Use appropriate tools to place spilled material in a container for reclaiming or disposal.

Dispose of in compliance with local and government regulations.

Store in cool, dry area away from oxidizing agents.

Keep containers tightly closed when not in use.

MATERIAL SAFETY DATA SHEET

EXTREME ROD GREASE

SECTION 8**FIRST AID MEASURES**

SKIN:	Wash gently and thoroughly with mild soap and water. Remove and launder contaminated clothes.
EYE:	Immediately flush eyes with running water for at least 15 minutes. Keep eyelids open. Do not use an eye ointment. Seek medical attention if irritation persists.
INHALATION:	Not expected under normal conditions. Remove victim to safe area, perform mouth to mouth resuscitation if victim is not breathing. Seek medical attention.
INGESTION:	Do not induce vomiting. Has laxative effect; rapidly eliminated. Medical assessment advised.

SECTION 9**PREPARATION DATE**

DATE ISSUED:	AUGUST 20, 2009
DATE REVISED:	JANUARY 01, 2012
BY:	PRODUCT SAFETY COMMITTEE

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EXTREME STOP

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PAGE 1 OF 4

WHMIS HAZARD INDEX:

DEGREE OF HAZARD:

HEALTH 0
FIRE 0
REACTIVITY 0
OTHER: 0

HAZARD RATING:

0 LEAST
1 SLIGHT
2 MODERATE
3 HIGH
4 EXTREME

SECTION 1

PRODUCT IDENTIFICATION

PRODUCT NAME:	EXTREME STOP
CHEMICAL IDENTIFICATION:	Acrylamide Copolymer
MATERIAL USE:	Lost Circulation Material
WHMIS CLASSIFICATION:	Non Hazardous
WORK PLACE HAZARD:	Not Applicable

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION:	Not Dangerous Goods
PACKAGE GROUP:	N/A
CAS NUMBER:	N/A
MSDS CODE:	N/A

SECTION 2

HAZARDOUS INGREDIENTS

INGREDIENT:	None Considered Hazardous
PERCENTAGE:	N/A
CAS NUMBER:	N/A
LD (50):	
LC (50):	

EXTREME STOP

MATERIAL SAFETY DATA SHEET

SECTION 3**PHYSICAL DATA**

APPEARANCE AND ODOUR:	White Freeflowing Granules, very mild odour.
DENSITY (SPECIFIC GRAVITY):	1.05
BOILING POINT:	N/A
MELTING POINT:	N/A
SOLUBILITY:	>60%
EVAPORATION RATE: (EE=1):	N/A
VAPOUR PRESSURE: (MM HG):	N/A
VAPOUR DENSITY: (AIR = 1):	N/A

SECTION 4**FIRE AND EXPLOSION**

FLASHPOINT:	No Data
FLAMMABLE LIMIT:	Not Determined
AUTO IGNITION TEMP:	No Data
EXTINGUISHING MEDIA:	Dry chemical, foam, water fog, CO ₂
SPECIAL FIRE FIGHTING PROCEDURES:	None
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None

SECTION 5**REACTIVITY DATA**

STABILITY (THERMAL, LIGHT, ETC.):	Stable
INCOMPATIBILITY (CONDITIONS TO AVOID):	Oxidizing Agents
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of Carbon as products of combustion.

EXTREME STOP

MATERIAL SAFETY DATA SHEET

SECTION 6**HEALTH HAZARDS**

ROUTE OF ENTRY:

☐ SKIN☐ EYE CONTACT☐ INHALATION☐ INGESTION

SKIN CONTACT:

N/A

EYE CONTACT:

N/A

INHALATION:

N/A

INGESTION:

N/A

SECTION 7**PREVENTATIVE MEASURES**

SKIN PROTECTION:

No special requirements.

EYE PROTECTION:

Goggles, may be nuisance dust.

VENTILATION:

No special requirements.

RESPIRATORY PROTECTION:

If nuisance dust use dust mask.

LEAK & SPILL PROCEDURE:

Collect in container. Dispose with solid waste. Non hazardous.

WASTE DISPOSAL:

Dispose of in compliance with local and government regulations.

STORAGE REQUIREMENTS:

Store in a cool, dry area, away from oxidizing agents. Keep containers closed when not in use.

EXTREME STOP

MATERIAL SAFETY DATA SHEET

SECTION 8**FIRST AID MEASURES**

SKIN:	N/A
EYE:	N/A
INHALATION:	N/A
INGESTION:	N/A

SECTION 9**PREPARATION DATE**

DATE ISSUED:	AUGUST 20, 1996
DATE REVISED:	JANUARY 01, 2012
BY:	PRODUCT SAFETY COMMITTEE

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EXTREME SUPER-G BLUE

WHMIS HAZARD INDEX:

DEGREE OF HAZARD:

HEALTH 1
FIRE 2
REACTIVITY 0
OTHER: B (GLASSES & GLOVES)

HAZARD RATING:

0 LEAST
1 SLIGHT
2 MODERATE
3 HIGH
4 EXTREME

SECTION 1

PRODUCT IDENTIFICATION

PRODUCT NAME: EXTREME SUPER-G BLUE
CHEMICAL IDENTIFICATION: Anionic polyacrylamides in water oil emulsion
MATERIAL USE: Drilling mud additive
WHMIS CLASSIFICATION: B3, D2B
WORK PLACE HAZARD: Combustible liquid; skin & eye irritant

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION: Not dangerous goods
PACKAGE GROUP: NA
CAS NUMBER: NA
MSDS CODE: NA

SECTION 2

HAZARDOUS INGREDIENTS

INGREDIENT:	<u>Mineral spirits</u>	<u>Alkyl Phenol Ethoxylate</u>	<u>Ethoxylated C12-15 Alcohol</u>
PERCENTAGE:	30-60	3-7	0.5-1.5
CAS NUMBER:	64742-47-8	68412-54-4	68131-39-5
LD (50):	>5 g/kg	3 g/kg	>3200 mg/kg
LC (50):	Undetermined	Undetermined	Undetermined

EXTREME SUPER-G BLUE

MATERIAL SAFETY DATA SHEET

SECTION 3**PHYSICAL DATA**

APPEARANCE AND ODOUR:	Blue liquid emulsion, slight odour
DENSITY (SPECIFIC GRAVITY):	NA
BOILING POINT:	NA
MELTING POINT:	NA
SOLUBILITY:	Forms gel
EVAPORATION RATE: (EE=1):	NA
VAPOUR PRESSURE: (MM HG):	NA
VAPOUR DENSITY: (AIR = 1):	NA

SECTION 4**FIRE AND EXPLOSION**

FLASHPOINT:	65°C (TCC)
FLAMMABLE LIMIT:	Undetermined
AUTO IGNITION TEMP:	Undetermined
EXTINGUISHING MEDIA:	Water spray, foam, dry chemical & CO ₂
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained respirators required for firefighting personnel
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Water may cause slipperiness. Sensitivity to static discharge

SECTION 5**REACTIVITY DATA**

STABILITY (THERMAL, LIGHT, ETC.):	Stable
INCOMPATIBILITY (CONDITIONS TO AVOID):	Strong oxidizing agents, strong reducing agents
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	NO _x , CO _x

MATERIAL SAFETY DATA SHEET

EXTREME SUPER-G BLUE

SECTION 6**HEALTH HAZARDS**

ROUTE OF ENTRY:

(XX) SKIN

(XX) EYE CONTACT

() INHALATION

(XX) INGESTION

SKIN CONTACT:

Irritant. Can cause redness, inflammation and irritation on prolonged contact

EYE CONTACT:

Severe irritant. Can cause redness, tissue destruction and irritation

INHALATION:

Unlikely

INGESTION:

May cause nausea, diarrhea and abdominal cramps

SECTION 7**PREVENTATIVE MEASURES**

SKIN PROTECTION:

Chemically resistant gloves

EYE PROTECTION:

Safety glasses

VENTILATION:

General mechanical

RESPIRATORY PROTECTION:

NIOSH approved organic vapour cartridge respirator if exposure is excessive

LEAK & SPILL PROCEDURE:

Small spills: soak up with absorbent material
Large spills: dike to contain spill to prevent water pollution. Recover diked material

WASTE DISPOSAL:

Incinerate/dispose of in accordance with local regulations

STORAGE REQUIREMENTS:

Store in a cool, well-ventilated area

EXTREME SUPER-G BLUE

MATERIAL SAFETY DATA SHEET

SECTION 8**FIRST AID MEASURES**

SKIN:	Wash exposed area with soap & water. If irritation or abnormalities persist seek medical attention. Remove contaminated clothing and launder prior to re-use
EYE:	Immediately flush eyes with water for 15 mins and seek medical attention
INHALATION:	Remove to fresh air. If irritation continues, seek medical attention
INGESTION:	If conscious & alert, give 1-2 glasses water. Never give anything by mouth to an unconscious person. Seek medical attention; do not leave unconscious person unattended. Do not induce vomiting

SECTION 9**PREPARATION DATE**

DATE ISSUED:	AUGUST 20, 1996
DATE REVISED:	JANUARY 01, 2012
BY:	PRODUCT SAFETY COMMITTEE

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EXTREME SUPER-G GOLD

WHMIS HAZARD INDEX:

DEGREE OF HAZARD:

HEALTH 1
FIRE 0
REACTIVITY 0
OTHER: B (GLASSES & GLOVES)

HAZARD RATING:

0 LEAST
1 SLIGHT
2 MODERATE
3 HIGH
4 EXTREME

SECTION 1

PRODUCT IDENTIFICATION

PRODUCT NAME: EXTREME SUPER-G GOLD
CHEMICAL IDENTIFICATION: Polysaccharide suspension
MATERIAL USE: Drilling mud additive
WHMIS CLASSIFICATION: D2B
WORK PLACE HAZARD: Skin & eye irritant

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION: Not dangerous goods
PACKAGE GROUP: NA
CAS NUMBER: NA
MSDS CODE: NA

SECTION 2

HAZARDOUS INGREDIENTS

INGREDIENT: Ethoxylated nonyl phenol
PERCENTAGE: 1-5
CAS NUMBER: 9016-45-9
LD (50): 5100mg/kg
LC (50):

EXTREME SUPER-G GOLD

MATERIAL SAFETY DATA SHEET

SECTION 3**PHYSICAL DATA**

APPEARANCE AND ODOUR:	Opaque dark yellow to beige liquid – little odour
DENSITY (SPECIFIC GRAVITY):	1.078
BOILING POINT:	Undetermined
MELTING POINT:	Undetermined
SOLUBILITY:	Dispersible
EVAPORATION RATE: (EE=1):	Undetermined
VAPOUR PRESSURE: (MM HG):	Undetermined
VAPOUR DENSITY: (AIR = 1):	Undetermined

SECTION 4**FIRE AND EXPLOSION**

FLASHPOINT:	Not flammable
FLAMMABLE LIMIT:	Undetermined
AUTO IGNITION TEMP:	NA
EXTINGUISHING MEDIA:	CO ₂ ; Foam; Dry Chemical; Water Spray
SPECIAL FIRE FIGHTING PROCEDURES:	NA
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Forms slippery mixture with water

SECTION 5**REACTIVITY DATA**

STABILITY (THERMAL, LIGHT, ETC.):	Stable
INCOMPATIBILITY (CONDITIONS TO AVOID):	Strong Oxidizers & acids
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	CO ₂ , smoke on combustion

MATERIAL SAFETY DATA SHEET

EXTREME SUPER-G GOLD

SECTION 6**HEALTH HAZARDS**

ROUTE OF ENTRY:

(XX) SKIN

(XX) EYE CONTACT

() INHALATION

(XX) INGESTION

SKIN CONTACT:

Irritant. Can cause redness & irritation

EYE CONTACT:

Severe irritant. Can cause redness & irritation

INHALATION:

Unlikely. May cause upper respiratory tract irritation

INGESTION:

May cause nausea, diarrhea and/ or abdominal cramps

SECTION 7**PREVENTATIVE MEASURES**

SKIN PROTECTION:

Chemically resistant gloves

EYE PROTECTION:

Safety glasses

VENTILATION:

General mechanical

RESPIRATORY PROTECTION:

NIOSH approved organic respirator if ventilation inadequate

LEAK & SPILL PROCEDURE:

Small spills: soak up with absorbent material
Large spills: dike to contain spill to prevent water pollution. Water will cause extreme slipperiness

WASTE DISPOSAL:

Incinerate/dispose of in accordance with local disposal regulations

STORAGE REQUIREMENTS:

Store in a cool, well-ventilated area

EXTREME SUPER-G GOLD

MATERIAL SAFETY DATA SHEET

SECTION 8**FIRST AID MEASURES**

SKIN:	Immediately wash with soap & water for 5 mins. Seek medical help if irritation develops/persists
EYE:	Hold eyelids open & flush with a steady stream of water for 15 mins. Seek medical attention
INHALATION:	Unlikely. If respiratory irritation occurs, move to fresh air. If symptoms continue, seek medical help
INGESTION:	If conscious & alert, give 2 glasses water. Never give unconscious person anything by mouth. Seek medical help; do not leave unconscious person unattended. Do not induce vomiting

SECTION 9**PREPARATION DATE**

DATE ISSUED:	AUGUST 20, 1996
DATE REVISED:	JANUARY 01, 2012
BY:	PRODUCT SAFETY COMMITTEE

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