

Safety Data Sheet



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

1.1 Product identifier

Delo 400 LE Synthetic SAE 5W-40

Product Number(s): 803078

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses: Heavy Duty Motor Oil

1.3 Details of the supplier of the safety data sheet

Chevron Products UK Limited
1 Westferry Circus
Canary Wharf
London E14 4HA
United Kingdom
email : eumsds@chevron.com

1.4 Emergency telephone number

Transportation Emergency Response

Europe: 0044/(0)18 65 407333 and CHEMTREC: +1 703 527 3887

Health Emergency

Chevron Emergency Information Center: Located in the USA, international calls accepted 24 hours: +1 510 231 0623

Europe: 0044/(0)18 65 407333

Product Information

Product Information: FAX number: 0044/20 77 19 5171

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLP CLASSIFICATION: Not classified as dangerous according to EU regulatory guidelines.

2.2 Label elements

Under the criteria of Regulation (EC) No 1272/2008 (CLP):
Not classified

- contains: Molybdenum polysulfide long chain alkyl dithiocarbamide complex. May produce an allergic reaction.

2.3 Other hazards Not Applicable

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.2 Mixtures

This material is a mixture.

COMPONENTS	CAS NUMBER	EC NUMBER	REGISTRATION NUMBER	CLP CLASSIFICATION	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	*	***	Asp. Tox. 1/H304	40 - 69 %weight
Highly refined mineral oil (C15 - C50)	Mixture	*	***	None	15 - 69 %weight
Dec-1-ene, homopolymer, hydrogenated	68037-01-4	500-183-1	01-2119486452-34	Asp. Tox. 1/H304	5 - < 10 %weight
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	125643-61-0	406-040-9	01-0000015551-76	Aquatic Chronic 4/H413	1 - < 2.5 %weight
Calcium long chain alkyl phenate sulfide	122384-87-6	Not Applicable	**	Aquatic Chronic 4/H413	1 - < 2.5 %weight
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	113706-15-3	Not Applicable	**	Aquatic Chronic 2/H411; Eye Dam. 1/H318; Skin Irrit. 2/H315	1 - < 2.5 %weight
Bis(nonylphenyl)amine	36878-20-3	253-249-4	01-2119488911-28	Aquatic Chronic 4/H413	1 - < 2.5 %weight
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed, cat. dewaxed, light/heavy paraffinic C15-C50	68784-26-9	701-249-4	01-2119524004, 01-2119524018-47	Aquatic Chronic 4/H413	1 - < 2.5 %weight
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Mixture	Confidential	**	Aquatic Chronic 3/H412; Skin Sens. 1B/H317; Skin Irrit. 2/H315	0.1 - < 1 %weight

The full text of all CLP H-statements is shown in Section 16.

*Contains one or more of the following EINECS numbers: 265-090-8, 265-091-3, 265-096-0, 265-097-6, 265-098-1, 265-101-6, 265-155-0, 265-156-6, 265-157-1, 265-158-7, 265-159-2, 265-160-8, 265-166-0, 265-169-7, 265-176-5, 276-736-3, 276-737-9, 276-738-4, 278-012-2.

**Not available or substance is not currently required for registration under REACH.

*** Contains one or more of the following REACH registration numbers: 01-2119488706-23, 01-2119487067-30, 01-2119487081-40, 01-2119483621-38, 01-2119480374-36, 01-2119488707-21, 01-2119467170-45, 01-2119480375-34, 01-2119484627-25, 01-2119480132-48, 01-2119487077-29, 01-2119489287-22, 01-2119480472-38, 01-2119471299-27, 01-2119485040-48, 01-2119555262-43, 01-2119495601-36, 01-2119474889-13, 01-2119474878-16.

SECTION 4 FIRST AID MEASURES

4.1 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.

4.2 Most important symptoms and effects, both acute and delayed

IMMEDIATE SYMPTOMS AND HEALTH EFFECTS

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

Skin: Contact with the skin is not expected to be harmful.

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.

DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS: Not classified.

4.3 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

5.1 Extinguishing media

Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

5.2 Special hazards arising from the substance or mixture

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: Calcium, Sulfur, Zinc, Phosphorus, Nitrogen .

5.3 Advice for firefighters

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.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition in vicinity of spilled material. Refer to Sections 5 and 8 for more information.

6.2 Environmental precautions

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.

6.3 Methods and material for containment and cleaning up

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 and dispose of in a manner consistent with applicable requirements. Place other contaminated materials in disposable containers and dispose of in a manner consistent with applicable requirements. Report spills to local authorities as appropriate or required.

6.4 Reference to other sections

See sections 8 and 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

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

Precautionary Measures: Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe gas. Wash thoroughly after handling.

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.

7.2 Conditions for safe storage, including any incompatibilities

Not Applicable

7.3 Specific end use(s): Heavy Duty Motor Oil

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. Refer to appropriate CEN standards.

8.1 Control parameters

Occupational Exposure Limits:

Component	Country/ Agency	Form	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	United Kingdom	--	5 mg/m ³	10 mg/m ³	--	--

Consult local authorities for appropriate values.

8.2 Exposure controls

ENGINEERING CONTROLS:

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

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

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

Respiratory Protection: No respiratory protection is normally required. If material is heated and emits hydrogen sulfide, determine if airborne concentrations are below the occupational exposure limit for hydrogen sulfide. If not, wear an approved positive pressure air-supplying respirator. For more information on hydrogen sulfide, see Chevron MSDS No. 301. If 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.

ENVIRONMENTAL EXPOSURE CONTROLS:

See relevant Community environmental protection legislation or the Annex, as applicable.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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

9.1 Information on basic physical and chemical properties

Appearance

Color: Light to Brown

Physical State: Liquid

Odor: Petroleum odor

Odor Threshold: No data available

pH: No data available

Melting Point: No data available
Freezing Point: Not Applicable
Initial Boiling Point: No data available
Flashpoint: (Cleveland Open Cup) 200 °C (392 °F) (Min)
Evaporation Rate: No data available
Flammability (solid, gas): Not Applicable
Flammability (Explosive) Limits (% by volume in air):
Lower: Not Applicable Upper: Not Applicable
Vapor Pressure: <0.01 mmHg Maximum @ 37.8 °C (100 °F)
Vapor Density (Air = 1): >1 (Minimum)
Density: 0.8590 kg/l @ 15°C (59°F) (Typical)
Solubility: Soluble in hydrocarbons; insoluble in water
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: 14.20 mm²/s @ 100°C (212°F) (ASTM D445) (Minimum)
Explosive Properties: No Data Available
Oxidising properties: No Data Available

9.2 Other Information: No Data Available

SECTION 10 STABILITY AND REACTIVITY

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

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

10.3 Possibility of hazardous reactions: Hazardous polymerization will not occur.

10.4 Conditions to Avoid: Not applicable

10.5 Incompatible materials to avoid: Not applicable

10.6 Hazardous decomposition products: Alkyl Mercaptans (Elevated temperatures), Hydrogen Sulfide (Elevated temperatures)

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product Information:

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 Toxicity Estimate (dermal): Not Applicable

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

Acute Toxicity Estimate (oral): Not Applicable

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

Acute Toxicity Estimate (inhalation): Not Applicable

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.

Aspiration Hazard: No data available

Component Information:

Serious Eye Damage/Irritation:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	Protocol: OECD 405 - Eye Irritation/Corrosion Test Result: Causes serious eye damage * read-across data from similar material
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

Skin Corrosion/Irritation:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	Test Result: Causes skin irritation
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Test Result: Causes skin irritation

Skin Sensitization:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic	Based on available data, the classification criteria are not met

acid, C7-9-branched alkyl esters	
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Test Result: May cause allergic skin reaction

Acute Dermal Toxicity:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

Acute Oral Toxicity:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

Acute Inhalation Toxicity:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met

Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

Germ Cell Mutagenicity:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

Carcinogenicity:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

Reproductive Toxicity:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met

Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

Specific Target Organ Toxicity - Single Exposure:

Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

Specific Target Organ Toxicity - Repeated Exposure:

Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Based on available data, the classification criteria are not met
Calcium long chain alkyl phenate sulfide	Based on available data, the classification criteria are not met
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Based on available data, the classification criteria are not met
Bis(nonylphenyl)amine	Based on available data, the classification criteria are not met
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Based on available data, the classification criteria are not met
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Based on available data, the classification criteria are not met

ADDITIONAL TOXICOLOGY INFORMATION:

In accordance with the Directive 94/69/EC (21st ATP to DSD), Nota L, reference IP 346/92: "DMSO Extraction Method", we have determined that the base oils used in this preparation are not carcinogenic. During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or

intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

SECTION 12 ECOLOGICAL INFORMATION

Product Information:

12.1 Toxicity

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

12.2 Persistence and degradability

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

12.3 Bioaccumulative potential

Bioconcentration Factor: No Data Available

Octanol/Water Partition Coefficient: No data available

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This product is not, or does not contain, a substance that is a potential PBT or a vPvB.

12.6 Other adverse effects

No other adverse effects identified.

Component Information:

Acute Toxicity:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	No test data available
Calcium long chain alkyl phenate sulfide	Confidential test data
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Confidential test data
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Confidential test data
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isooctyl) esters, zinc salts	Confidential test data
Bis(nonylphenyl)amine	Test Qualifier: EC50 Test Result: 733 mg/l Species: Invertebrate Duration:48 hour(s)
Bis(nonylphenyl)amine	Test Qualifier: EC50 (growth rate) Test Result: 600 mg/l Species: Algae Duration:72 hour(s)
Bis(nonylphenyl)amine	Test Qualifier: LC50 Test Result: >10,000 mg/l Species: Fish Duration:96 hour(s)
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from	No test data available

propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	No test data available

Long-term Toxicity:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	No test data available
Calcium long chain alkyl phenate sulfide	No test data available
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	No test data available
Bis(nonylphenyl)amine	No test data available
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	No test data available
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Confidential test data

Biodegradation:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	Test Result: Not readily biodegradable
Calcium long chain alkyl phenate sulfide	Test Result: Not readily biodegradable
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	Test Result: Not readily biodegradable
Bis(nonylphenyl)amine	Test Result: Not readily biodegradable
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts, sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed,cat. dewaxed, light/heavy paraffinic C15-C50	Not applicable
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	Test Result: Not readily biodegradable

Bioaccumulative Potential:	
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Highly refined mineral oil (C15 - C50)	Based on available data, the classification criteria are not met
Dec-1-ene, homopolymer, hydrogenated	Based on available data, the classification criteria are not met
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters	No test data available
Calcium long chain alkyl phenate sulfide	No test data available
Phosphorodithioic acid, mixed, O,O-bis(sec-butyl and isoctyl) esters, zinc salts	No test data available
Bis(nonylphenyl)amine	No test data available
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, calcium salts,	No test data available

sulfurized including distillates (petroleum), hydrotreated, solvent-refined/dewaxed, cat. dewaxed, light/heavy paraffinic C15-C50	
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	No test data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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.

In accordance with European Waste Catalogue (E.W.C.) the codification is the following: 13 02 06

SECTION 14 TRANSPORT INFORMATION

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

ADR/RID

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT

- 14.1 UN number: Not applicable
- 14.2 UN proper shipping name: Not applicable
- 14.3 Transport hazard class(es): Not applicable
- 14.4 Packing group: Not applicable
- 14.5 Environmental hazards: Not applicable
- 14.6 Special precautions for user: Not applicable

ICAO

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT

- 14.1 UN number: Not applicable
- 14.2 UN proper shipping name: Not applicable
- 14.3 Transport hazard class(es): Not applicable
- 14.4 Packing group: Not applicable
- 14.5 Environmental hazards: Not applicable
- 14.6 Special precautions for user: Not applicable

IMO

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT

- 14.1 UN number: Not applicable
- 14.2 UN proper shipping name: Not applicable
- 14.3 Transport hazard class(es): Not applicable
- 14.4 Packing group: Not applicable
- 14.5 Environmental hazards: Not applicable
- 14.6 Special precautions for user: Not applicable
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable

SECTION 15 REGULATORY INFORMATION

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

REGULATORY LISTS SEARCHED:

- 01=EU Directive 76/769/EEC: Restrictions on the marketing and use of certain dangerous substances.
- 02=EU Directive 90/394/EEC: Carcinogens at work.
- 03=EU Directive 92/85/EEC: Pregnant or breastfeeding workers.
- 04=EU Directive 96/82/EC (Seveso II): Article 9.
- 05=EU Directive 96/82/EC (Seveso II): Articles 6 and 7.
- 06=EU Directive 98/24/EC: Chemical agents at work.
- 07=EU Directive 2004/37/EC: On the protection of workers.
- 08=EU Regulation EC No. 689/2008: Annex 1, Part 1.
- 09=EU Regulation EC No. 689/2008: Annex 1, Part 2.
- 10=EU Regulation EC No. 689/2008: Annex 1, Part 3.
- 11=EU Regulation EC No. 850/2004: Prohibiting and restricting persistent organic pollutants (POPs).
- 12=EU REACH, Annex XVII: Restrictions on manufacture, placing on the market and use of certain dangerous substances, mixture & article.
- 13=EU REACH, Annex XIV: Candidate List of Substances of Very High Concern for Authorization (SVHC).

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

CHEMICAL INVENTORIES:

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

One or more components is listed on ELINCS (European Union). All other components are listed or exempted from listing on EINECS.

One or more components does not comply with the following chemical inventory requirements: IECSC (China).

15.2 Chemical safety assessment

No chemical safety assessment.

SECTION 16 OTHER INFORMATION

REVISION STATEMENT: This revision updates the following sections of this Material Safety Data Sheet: 1,2,3,4,5,7,8,9,10,11,12,15

Revision Date: March 06, 2019

Full text of CLP H-statements:

H304; May be fatal if swallowed and enters airways
H411; Toxic to aquatic life with long lasting effects
H412; Harmful to aquatic life with long lasting effects
H413; May cause long lasting harmful effects to aquatic life
H318; Causes serious eye damage
H317; May cause allergic skin reaction
H315; Causes skin irritation

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
CVX	-	Chevron	CAS	-	Chemical Abstract Service Number
NQ	-	Not Quantifiable			

Prepared according to the EU Regulation 1907/2006 (as amended) 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.

No Annex