

SECTION 1 Identification**1.1. GHS Product identifier**

Product form : Mixture
Trade name : FULL SYNTHETIC SAE 0W-40 HDEO
Product code : 50124

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : HEAVY-DUTY DIESEL ENGINE OIL
Restrictions on use : None known

1.4. Supplier's details

MOLEC LUBRICANTS
68567 HWY 858
PLAMONDON, AB T0A 2T0
Canada
T 780-798-2224
sds@moleclubricants.com

1.5. Emergency phone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 997999
Back-up Emergency Number: +1 703-741-5970 (Washington, DC)

SECTION 2 Hazard identification**2.1. Classification of the substance or mixture****Classification (GHS CA)**

Not classified

2.2. GHS label elements, including precautionary statements**GHS CA labeling**

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients**3.1. Substances**

Not applicable

FULL SYNTHETIC SAE 0W-40 HDEO

Safety Data Sheet

according to SOR/2015-17, Hazardous Products Regulations (HPR) , as amended by SOR/2022-272

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Highly refined mineral oil	Distillates (petroleum), solvent-dewaxed heavy paraffinic	CAS-No.: 64742-65-0	3.73 – 6.46	Acute Tox. 4 (Inhalation:dust,mist), H332 Aquatic Chronic 4, H413
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoocetyl) esters, zinc salts	-	CAS-No.: 113706-15-3	1.08	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Chronic 2, H411

Comments : The concentration ranges are provided due to batch-to-batch variability.

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin areas with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical advice/attention if you feel unwell.
First-aid measures general	: First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but, not mouth-to-mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: IF exposed or concerned: Get medical advice/attention.
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SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Dry chemical, CO2, or water spray or regular foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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5.2. Specific hazards arising from the chemical

- Fire hazard : The product is not flammable.
- Explosion hazard : No direct explosion hazard.
- Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2).

5.3. Special protective actions for fire-fighters

- Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers. Large fires: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting devices or discoloration from tank. ALWAYS stay away from tanks engulfed in fire. For a massive fire, use unmanned hose holders or monitor nozzles, or withdraw from the area and allow fire to burn. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid all personal contact including breathing in the mist, spray, vapors. Do not take actions involving personal risks. Absorb spillage to prevent material damage. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
- Environmental precautions : Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

- For containment : Contain with non-combustible inert absorbent. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
- Methods for cleaning up : Take up in non-combustible inert absorbent and place into container for disposal. Decontaminate surfaces and equipment with water and detergent. Notify authorities if product enters sewers or public waters. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

For further information refer to section 8: "Exposure controls/personal protection", For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. Do not breathe mist, spray, vapors. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.
- Additional hazards when processed : If spilled, may cause the floor to be slippery.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep away from food, drink and animal feeding stuffs.
- Incompatible materials : Oxidizing agents.
- Heat-ignition : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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Packaging materials : Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Handle in accordance with good industrial hygiene and safety procedures. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Avoid release to the environment. Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

Hand protection:

Wear protective gloves. Wear suitable gloves resistant to chemical penetration

Eye protection:

Wear safety glasses which protect from splashes

Skin and body protection:

Body protection should be chosen depending on activity and possible exposure

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid

Appearance : No data available

Color : Amber

Odor : No data available

Odor threshold : No data available

pH : No data available

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Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 220 °C / 428 °F
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 0.8422
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: > 80 mm²/s
Explosion limits	: No data available
Particle characteristics	: No data available

Highly refined mineral oil

Particle characteristics	No data available
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Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts

Particle characteristics	No data available
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9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions of use.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Keep container closed when not in use. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Incompatible materials.
Incompatible materials	: Oxidizing agents.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce: Carbon oxides (CO, CO ₂). Irritating fumes.
Hardening time:	: No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified.

Highly refined mineral oil

LD50 oral rat	> 5000 mg/kg body weight
LD50 oral	5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg body weight
LC50 Inhalation - Rat	> 5.53 mg/l/4h

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Highly refined mineral oil

LC50 Inhalation - Rat (Dust/Mist)	2.18 mg/l
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Skin corrosion/irritation	: Not classified
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Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts

Specific concentration limits	Skin Irrit. 2; : C ≥ 6.25 %
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Serious eye damage/irritation	: Not classified
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Respiratory or skin sensitization	: Not classified
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Germ cell mutagenicity	: Not classified
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Carcinogenicity	: Not classified
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Reproductive toxicity	: Not classified
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STOT-single exposure	: Not classified
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STOT-repeated exposure	: Not classified
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Highly refined mineral oil

LOAEL (oral,rat,90 days)	125 mg/kg body weight
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NOAEC (inhalation,rat,dust/mist/fume,90 days)	> 0.98 mg/l air
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Aspiration hazard	: Not classified
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FULL SYNTHETIC SAE 0W-40 HDEO

Viscosity, kinematic	> 80 mm²/s
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Symptoms/effects after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
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Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
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Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
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Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
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SECTION 12 Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term : Not classified
(acute)

Hazardous to the aquatic environment, long-term : Not classified.
(chronic)

Highly refined mineral oil

LC50 - Fish [1]	> 5000 mg/l
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EC50 - Crustacea [1]	> 1000 mg/l
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EC50 96h - Algae [1]	> 1000 mg/l
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12.2. Persistence and degradability

FULL SYNTHETIC SAE 0W-40 HDEO

Persistence and degradability	Not established.
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Highly refined mineral oil

Persistence and degradability	Not rapidly degradable
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Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

Highly refined mineral oil

Partition coefficient n-octanol/water (Log Pow)	3.9 – 6
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations. Dispose of this material and its container at hazardous or special waste collection point. Refer to all applicable national, international and local regulations or provisions.
Additional information	: Do not re-use empty containers.
Ecological waste information	: Avoid release to the environment.

SECTION 14 Transport information

In accordance with TDG / IMDG / IATA

TDG	IMDG	IATA
14.1. UN Number		
Not regulated	Not regulated	Not regulated
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group, if applicable		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

TDG

Not regulated

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IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

Highly refined mineral oil (64742-65-0)

Listed on the Canadian DSL (Domestic Substances List)

Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts (113706-15-3)

Listed on the Canadian DSL (Domestic Substances List)

Highly refined mineral oil (64742-65-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts (113706-15-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

SECTION 16 Other Information

Issue date : 07-14-2026

Full text of hazard classes and H-statements:

H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H411	Toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.