

## Safety Data Sheet

According to Hazard Communication Standard (29 CFR 1910.1200)

L-HM 46 Anti-wear Hydraulic Oil

Version 1.0

Issue date: 06/11/2020

Revision date: 06/11/2020

SDS record number: CSSS-TCO-010-141133

### 1. Product and Company Identification

**Material name** L-HM 46 Anti-wear Hydraulic Oil  
**CAS #** See section 3  
**Product code** 60205824  
**Product use** Suitable for lubrication of low or medium pressure hydraulic systems, hydraulic system of mobile equipment and industrial equipment.

#### Manufacturer/Supplier

**Supplier(Manufacturer):** SINOPEC LUBRICANT CO., LTD.  
**Address:** No. 6 Anning Zhuang West Road, Haidian District, Beijing, P.R.China  
**Contact person(E-mail):** csc.lube@sinopec.com  
**Telephone:** 00-86-95388-3  
**Fax:** 86-10-82410856

**Emergency telephone Number:** 00-86-95388-3

### 2. Hazards identification

#### GHS classification

**Physical hazards** Not classified  
**Health hazards** Not classified  
**Environmental hazards** Not classified

#### GHS label elements

**Hazard Pictograms** No hazard pictogram is used.  
**Signal word** No signal word is used.  
**Hazard statement** Not applicable.

#### Precautionary statement

**Prevention** Not applicable.  
**Response** Not applicable.  
**Storage** Not applicable.  
**Disposal** Not applicable.  
**Other hazards** Not available.

### 3. Composition / Information on Ingredients

Components	CAS#	Percent
Mineral oil	8042-47-5	97.0 – 99.9%weight
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	0.1 - 3.0%weight

### 4. First Aid Measures

#### First aid procedures

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

**Skin contact** 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.

**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.

**Ingestion**

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

**Notes to physician**

Treat symptoms.

**5. Fire Fighting Measure****Flammable properties**

Not available.

**Extinguishing media****Suitable extinguishing media**

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

**Unsuitable extinguishing media**

Not available.

**Firefighting equipment/instructions**

This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Hazardous combustion products**

Carbon monoxide, carbon dioxide, and unidentified organic compounds.

**6. Accidental Release Measures****Personal precautions**

Eliminate all sources of ignition in vicinity of spilled material.

**Environmental precautions**

Do not let product enter drains.

**Methods for cleaning up**

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.

**7. Handling and Storage****Handling**

Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water. Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'. Container 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.

## Storage

Keep container tightly closed in a dry and well-ventilated place.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Mineral oil (CAS 8042-47-5)	PEL	5 mg/m <sup>3</sup>	Mist.

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Mineral oil (CAS 8042-47-5)	TWA	5 mg/m <sup>3</sup>	Inhalable fraction.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Mineral oil (CAS 8042-47-5)	STEL	10 mg/m <sup>3</sup>	Mist.
	TWA	5 mg/m <sup>3</sup>	Mist.

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Individual protection measures, such as personal protective equipment:

#### Eye / face protection

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

#### Skin protection

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

#### Respiratory protection

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

#### General hygiene considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

## 9. Physical & Chemical Properties

### Appearance

#### Physical state

Liquid

#### Form

Liquid

#### Color

Light to Brown

#### Odor

Petroleum odor

#### Odor threshold

Not available

#### pH

Not available

#### Vapor pressure

<0.5Pa@20 °C (Typical)

#### Vapor density

>1 Minimum

<b>Boiling point</b>	>280°C (Estimated value)
<b>Melting point/Freezing point</b>	Not available
<b>Solubility (water)</b>	Insoluble in water.
<b>Density</b>	0.84 kg/l - 0.93 kg/l(20 °C) (68° F)
<b>Flash point</b>	(Cleveland Open Cup) 175 °C (347 °F) Minimum
<b>Partition coefficient</b>	Not available
<b>Flammability limits in air, upper, %by volume</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>VOC</b>	Not available
<b>Percent volatile</b>	Not available
<b>Molecular Formula</b>	Not available
<b>Molecular Weight</b>	Not available
<b>Other data</b>	
<b>Viscosity</b>	41.4 mm <sup>2</sup> /s - 50.6 mm <sup>2</sup> /s @40°C (104° F)
<b>Dissociation constant</b>	Not available
<b>Pour Point:</b>	-15 °C (Typical)

## 10. Chemical Stability & Reactivity Information

<b>Reactivity</b>	The substance is stable under normal storage and handling conditions.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Incompatible materials. Heat. Hot surfaces. Flames.
<b>Incompatible materials</b>	May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
<b>Hazardous decomposition products</b>	Carbon monoxide, carbon dioxide, and unidentified organic compounds.
<b>Possibility of hazardous reactions</b>	No hazardous reactions known.

## 11. Toxicological Information

### Toxicokinetics, metabolism and distribution:

**Non-human toxicological data:** Not available

### Information on toxicological effects:

#### Acute toxicity:

#### Mineral oil (CAS#8042-47-5)

<b>LD50(Oral, Rat):</b>	> 5000 mg/kg bw
<b>LD50(Dermal, Rabbit):</b>	> 2000 mg/kg bw
<b>LC50(Inhalation, Rat):</b>	> 5 mg/L 4 h
<b>Skin corrosion/Irritation:</b>	Not classified
<b>Serious eye damage/irritation:</b>	Not classified
<b>Respiratory or skin sensitization:</b>	Not classified
<b>Germ cell mutagenicity:</b>	Not classified
<b>Carcinogenicity:</b>	Not classified
<b>Reproductive toxicity:</b>	Not classified
<b>STOT- single exposure:</b>	Not classified
<b>STOT-repeated exposure:</b>	Not classified
<b>Aspiration hazard:</b>	Not classified

## 12. Ecological Information

### Toxicity:

## Mineral oil (CAS#8042-47-5)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LL50	> 10000 mg/L	96h	Fish	OECD 203	N/A	N/A
LL50	> 100 mg/L	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

**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.

**Bioaccumulative potential:** Not available.

**Mobility in soil:** Not available.

**Results of PBT&vPvB assessment:** Not available.

**Other adverse effects:** Not available.

### 13. Disposal Considerations

**Disposal instructions** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport Information

#### DOT

##### Basic shipping requirements:

**UN number** Not regulated

**Proper shipping name** Not regulated

**Hazard class** Not regulated

**Packing group** Not regulated

**Environmental hazards** No

#### IATA

**UN number** Not regulated

**UN proper shipping name** Not regulated

**Transport hazard class(es)** Not regulated

**Packing group** Not regulated

**Environmental hazards** No

#### IMDG

**UN number** Not regulated

**UN proper shipping name** Not regulated

**Transport hazard class(es)** Not regulated

**Packing group** Not regulated

**Environmental hazards** No

### 15. Regulatory Information

#### US federal regulations

##### Toxic Substances Control Act (TSCA)

###### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

###### CERCLA Hazardous Substance List (40 CFR 302.4)

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (CAS 68649-42-3) Listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not regulated.

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

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**                      No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	0.1 - 3.0%weight

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)**                      Not regulated.

**16. Other Information**

**HMIS® ratings**

Health: 0  
Flammability: 1  
Physical hazard: 0

**NFPA ratings**

Health: 0  
Flammability: 1  
Instability: 0

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available.

**Issue date**

06-11-2020