SINOPEC | 长城润滑油

Chemical Safety Data Sheet (SDS)

1) Chemical and Corporate Identification

Chinese Name of Chemical Substance	L-HM 46 Anti-wear Hydraulic Oil (Standard)
English Name of Chemical Substance	L-HM 46 Anti-wear Hydraulic Oil
Product Code	60196272
Recommended Uses and Restricted Uses	Applicable to lubrication, cooling, temperature reduction, sealing, and other functions of equipment.
Manufacturer Name	China Petrochemical Lubricants Co., Ltd.
Manufacturer Address	No.6 Anningzhuang West Road, Haidian District, Beijing Postal Code 100085
Enterprise Emergency Phone Number	00-86-95388-3 Fax Number: 00-86-10-82410856
URL	http:// sinolube.sinopec.com/
E-mail	If you have any questions about this SDS content, please email us csc.lube@sinopec.com
Availability date	2022-3-1

2) Risk Overview

GHS Hazard Category	Non-hazardous
GHS Label Elements	
Symbol	No matches found
Warning Statement	No warning words
Hazard Description	Physical hazards: According to the GHS standards, it is not classified as a hazardous substance. Health hazard： According to the GHS standards, it is not classified as a health hazard substance. Environment hazards According to the GHS standards, it is not classified as an environmentally hazardous substance.
GHS Prevention Measures Description: Prevention Measures, Accident Response, Safe Storage, Waste Disposal	No preventive terms No preventive terms No preventive terms No preventive terms
Summary of other hazards not classified under specific categories, along with their primary symptoms and emergency response measures	Not classified as combustible, but can burn According to animal studies, no strong evidence has been found to demonstrate carcinogenicity of this product. Under normal circumstances, this product does not pose a risk.

It may adversely affect health; excessive exposure can cause irritation to the eyes, skin, and respiratory tract.

Improper cleansing may clog skin pores, leading to conditions such as seborrheic acne and folliculitis.

Used oil may contain harmful impurities.

3) Ingredients/Composition Information

dispensing information This product is a mixture, with its main components consisting of base oil and petroleum additives.

Chemical Substance Name	CAS Number or Identification Number	EC number	Content, wt%
Refined Mineral Base Oil	Mixture	---	90-99.5
Additive	Mixture	---	0.5-10

4) emergency treatment

General Information Under normal operating conditions, it should not pose a health hazard.

Management of different contact methods

Inhalation No emergency medical care is required. However, medical attention is advised if symptoms such as cough or dyspnea occur.

Skin exposure No medical emergency is required. Remove contaminated clothing, clean the affected area thoroughly, and then wash it with soap and water.

Wash. Thoroughly wash clothing and footwear before reuse. Seek medical attention if necessary.

Eye contact No medical emergency treatment required. Rinse with water for 15–20 minutes. Seek medical attention if necessary.

Ingestion No medical emergency intervention is generally required unless a large dose is ingested. As a preventive measure, medical consultation is recommended.

Main symptoms (acute/late effects): Prolonged inhalation of oil mist or vapor under high temperatures may lead to inflammation of the respiratory organs; chronic or repeated skin contact can cause irritation or dermatitis; ocular exposure may result in mild eye irritation; excessive ingestion may induce gastrointestinal inflammation, vomiting, and diarrhea.

5) fire protection

Highly dangerous This product has a flash point greater than 205°C and is not classified as hazardous material. It is highly susceptible to combustion when exposed to high temperatures, open flames, or strong oxidizing agents.

Fire suppression methods and extinguishing agents Water sprinklers or foggers, foam fire extinguishers, carbon dioxide fire extinguishers, and dry powder fire extinguishers. Sand-based extinguishing agents are only suitable for small-scale fires.

Harmful substances produced during combustion During incomplete combustion, dense smoke, carbon monoxide, carbon dioxide, sulfur oxides, aldehydes, nitrogen oxides, phosphates, certain metal oxides, and other decomposition products are generated.

Fire extinguishing agents that are prohibited from use Do not spray water.

Special protective equipment for firefighters When approaching a fire source in a confined space, a breathing apparatus must be worn.

6) Leak Emergency Response

Avoid contact with spilled or released substances. For guidelines on the selection of personal protective equipment, refer to Chapter 8 of the Safety Data Sheet.

For information on disposal, refer to Chapter 13 of the Safety Data Sheet. Please comply with all applicable local or national regulations.

Emergency Response Procedures: Cut off the source of ignition, immediately contact the personnel involved, and ensure that all unauthorized individuals are promptly evacuated to a safe area and isolated.

Seal off the leakage source as completely as possible to prevent it from entering sewers, drainage ditches, water bodies, or other enclosed spaces. Adhere to relevant fire safety procedures; refer to Chapter 8 of the Safety Technical Manual.

Protective Measures for Personnel Working in Such Environments: Avoid contact with skin and eyes.

Environmental Protection Measures: Before personnel arrive at the scene, contain the spilled material as much as possible. For minor leaks, use wood chips for containment.

Collect spill liquids using sand, soil, or other absorbents and store them in a sealed, leak-proof container for further treatment. For large-scale spills, construct barriers or excavate pits to contain the materials, ensuring they do not enter sewers, rivers, water sources, or low-lying areas. Place the spilled substances in appropriate containers for disposal. In cases of soil or plant contamination, report the incident to the relevant authorities.

For waste disposal procedures, refer to Chapter 13 of the Safety Technical Manual.

Elimination Method: For large leaks, use a vacuum pump to draw the gas into a container; for small leaks, use wood chips, sand, soil, absorbent cotton, or other materials.

The adsorbent prevents diffusion and is stored in a sealed container for processing. In the event of a land-based spill, protective measures should be taken to cut off the pollution source and minimize contamination of surface water. For waterborne spills, immediately use oil booms to contain the leaking oil, warn nearby vessels, and employ appropriate dispersants if necessary.

Severe leakage incidents that cannot be handled should be reported to local authorities.

7) Operation, Handling, and Storage

Operation Handling

General Preventive Measures: Avoid prolonged or repeated skin contact; thoroughly wash after exposure. If there is a risk of inhaling vapors, sprays, or smoke, use a local exhaust ventilation system. Handle with care during transportation to prevent damage to packaging and containers.

Precautions for Safe Handling: Operators must undergo specialized training and strictly adhere to operational protocols. Avoid contact with oxidizers. Equip with an adequate supply of firefighting equipment and leakage emergency response devices. When loading or unloading 200-liter drummed products, protective footwear must be worn. Empty containers may retain hazardous substances.

Condition of storage: Keep the container sealed and do not store in open or unlabeled containers. Store under cool, dry, and well-ventilated conditions, away from strong oxidizers, sources of ignition, heat sources, and flammable materials. Store at room temperature. Empty containers may still contain residual product; do not cut, weld, or expose to high temperatures or flames.

8) Contact Control and Personal Protection

Acceptable concentration: Maximum allowable concentration for occupational exposure to high-refined mineral oil

America ACGIH:

STEL: 10 mg/m ^{3}; Form: Mineral oil mist

TWA: 5 mg/m ^{3}; Form: mineral oil mist

China MAC:

	No standards have been established
Engineering Control Methods	Provide exhaust ventilation or other engineering controls to ensure that the concentration of relevant substances in the air remains below the standards specified.
Personal Protective Equipment	Personal protective equipment (PPE) must comply with relevant national standards. For specific requirements, please consult the PPE supplier.
Respiratory System Protection	No respiratory protective equipment is required under normal operating conditions. If the engineering control systems do not maintain the oil mist concentration within acceptable limits, The concentration must be maintained at a level sufficient to protect the health of relevant personnel, and respiratory protection equipment compliant with applicable regulatory requirements must be selected. For specific details, please consult the respiratory protection equipment supplier.
Hand Protection	Use protective gloves with oil resistance and chemical resistance. It is recommended to use nitrile rubber, chloroprene rubber, or polyvinyl chloride (PVC) gloves. Gloves. Replace contaminated gloves promptly. Clean thoroughly with soap and water after use.
eye protection	Use safety goggles if splashing may occur.
Skin and Body Protection	Under normal operating conditions, no special skin or body protection equipment is required beyond standard workwear. When there is a risk of splashing, select appropriate, permeable safety clothing and safety footwear tailored to the specific workplace conditions; nitrile rubber is recommended as the material.

9) Physical and Chemical Properties

Surface	A transparent oily liquid, ranging from light yellow to brown
Smell	Odorless or with a slight odor
pH price	Inapplicable
Melting point	Inapplicable
Pour point	-12°C (typical value)
Initial boiling point	Not applicable
Flash point	234°C (open cup) (typical value)
Explosion limit	Non-avaible
Steam pressure	<0.5 Pa at 20°C (estimated value)
Vapor density	>1 (Air = 1)
Density	0.84kg/L~0.95kg/L（20℃）
Solubility	Insoluble in water
Octanol/water partition coefficient	Not applicable
Autogenous ignition temperature	>320℃
Decomposition temperature	Non-avaible
Dynamic viscosity	41.4 mm^2/s – 50.6 mm^2/s @40℃

10) Stability and Reactivity

Stability	Stabilize
Possible adverse reactions	Contact with strong oxidizing agents
Conditions to be avoided	Extreme temperatures, direct sunlight exposure, contact with strong oxidizing agents or sources of ignition
Incompatible substances	Strong oxidizing agent

Hazardous decomposition products	No hazardous decomposition products are formed under normal storage conditions.

11) Toxicological Information

Acute toxicity	The anticipated toxicity is low. LD50:>5 g/kg (percutaneously in rabbits),>5 g/kg (orally in mice). LC50> 10 g/m ^{3}(rats)
Skin irritation or corrosion	A mild irritation is expected. Prolonged or persistent contact with the skin, coupled with improper cleansing, may lead to skin inflammation.
Eye irritation or corrosion	A mild sensation of stimulation is expected.
Inhalation hazard	Inhalation of vapor or oil mist may cause mild irritation.
Respiratory or skin allergy	The expected substance is not a skin sensitizing agent.
Mutability of germ cells	No risk of mutagenesis
Carcinogenicity	The components in this product with concentrations greater than 0.1% are not classified as carcinogens by the American Council on Governmental Industrial Hygiene (ACGIH), the International Agency for Research on Cancer (IARC), or the European Commission (EC).
Reproductive toxicity	No anticipated hazards
Specific target organ toxicity – single exposure	No anticipated hazards
Specific target organ toxicity – repeated exposure	No anticipated hazards
Extraneous information	Used oil contains harmful impurities accumulated during use. The viscosity and composition of these impurities vary depending on the usage conditions, posing potential health and environmental risks during handling. Used oil should be handled with care to minimize skin contact whenever possible. Animal studies have demonstrated that prolonged exposure to used engine oil can induce skin cancer.

12) Ecological Information

Ecotoxicity	No relevant data available
Durability and Degradability	It is not expected to biodegrade easily.
Potential bioaccumulation	Contains potentially bioaccumulative components.
Mobility in soil	If it enters the soil, it will be absorbed by soil particles and become immobile.

13) Disposal of waste

Residual waste	It should be recycled or reused as much as possible, or disposed of centrally by waste collection operators approved by relevant regulations.
Disposal of containers	Disposal should, whenever possible, be carried out by waste collectors approved in accordance with relevant regulations.
Disposal Precautions	Use personal protective equipment. Prevent waste from coming into contact with soil or entering drainage systems. When handling or storing waste, employ transportation vehicles, recycling devices, treatment or storage equipment approved by authorized authorities.

14) Transportation Information

This product is not classified as a hazardous substance during land, sea, or air transportation.

UN Hazardous Goods Code	Not applicable
UN Transport Name	Not applicable
UN Hazard Classification	Not applicable
Packaging Group	Not applicable
Marine pollutants	Not applicable

15) Legal Regulations Information

According to the relevant regulations in China, this product does not fall under the category of hazardous chemicals.

Domestic Chemical Safety Management Regulations: Regulations on the Safety Management of Hazardous Chemicals (issued by the State Council on March 2, 2011)

Regulations on the Safe Use of Chemicals in the Workplace ([1996] Labor Ministry Document No.423)

GB 6944 Classification of Dangerous Goods and Designation Codes

GB/T 16483: Content and Order of Items in Chemical Safety Data Sheets

GB 13690: General Principles for the Classification of Chemicals and the Public Disclosure of Their Hazards

GB 12268 List of Names for Hazardous Goods

GB 15258: Requirements for the Preparation of Safety Labels for Chemical Products

GBZ 2.1 Occupational Exposure Limits for Hazardous Factors in Workplaces – Part 1: Chemical Hazardous Factors

These regulations establish corresponding provisions regarding the safe handling, production, storage, transportation, and loading/unloading of hazardous chemicals.

16) Other Information

Revision Date	March 1, 2022
MSDS version number	Sixth Edition
Other Materials	Additional information and manuals can be obtained from the Sales Department and the Technical Services Department.
Revision Statement	The information provided is based on our understanding of the available data, and the product description merely complies with health, safety, and environmental requirements. We do not provide any warranty regarding the specific characteristics of the product.