

【Material Safety Data Sheet】

SECTION 1 Chemicals and corporate identification

Product English Name	U-40℃ Super Transformer Oil (General)
Product Number	60512020
Recommended use and limitations of use:	U-40℃ Super Insulated Transformer Oil (General) is suitable for insulation and cooling medium in the oil-immersed transformer.
Producer Name	LUBRICANT COMPANY,SINOPEC CORP.
Producer Address	No. 6 Anning Zhuang West Road, Haidian District, Beijing, P.R.China Post number:100085
Emergency Response	Phone 00-86-400-810-9886 Fax 00-86-10-82410856
Website	www.sinolube.com
e-mail	csc.lube@sinopec.com
Effective Date	2019-6-28

SECTION 2 HAZARDS IDENTIFICATION

GHS Hazard Class	Non-hazardous
GHS Label elements	
Symbol	No symbol
Signal word	No Signal word
Hazard Description	Physical hazards: According to GHS criteria, not classified as hazardous substances. Health hazards: According to GHS criteria, not classified as hazardous substances. Environmental hazards: According to GHS criteria, not classified as hazardous substances.
GHS Precautionary Statements	
Precaution	No prevention of terms
Incident Response	No prevention of terms
Safe storage	No prevention of terms
Waste disposal	No prevention of terms
Do not affect the classification of other hazards	Not classified as flammable but it can burn
Main symptoms and Emergency overview	The International Agency for Research on Cancer (IARC) has determined there is sufficient evidence for the carcinogenicity in experimental animals of used the oil. Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eyes, skin or respiratory irritation.

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SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

Formula Description

This product is a mixture, its main ingredients include highly refined mineral oil and petroleum additives.

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification
Lubricationg oils(petroleum),C 15-C30, hydrotreated neutral oil-based	01-2119474878-1 6-0008	72623-86-0	276-737-9	100%	Not Classified

SECTION 4 FIRST AID MEASURES

General information

Under normal conditions of use, this product will not be a health hazard

Disposal of different contact methods

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.

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.

Eye

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

Ingestion

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

Main symptoms (acute/ delayed effects)

In the case of high temperature long-term inhalation of oil mist or vapors may cause respiratory irritation. Prolonged or repeated skin contact can cause irritation or inflammation of the skin. Eye contact can cause mild irritation to the eyes. Ingestion too much may lead to stomach irritation, vomiting and diarrhea.

SECTION 5 FIRE FIGHTING MEASURES

Special hazards:

This product has a flash point over 150°C and it belongs to non-dangerous products. When it meets fever case, the fire and strong oxidants, it can cause a fire.

Fire fighting methods and extinguishing agents:

Spray, foam, fire extinguishers, carbon dioxide fire extinguisher, dry powder fire extinguisher

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.

Prohibit the use of fire extinguishing agent

Do not water.

Special protective equipment for firefighters

Must wear breathing apparatus in confined spaces when close to the ignition point.

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SECTION 6 ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on the selection of personal protective equipment, see Chapter 8 of MSDS.

For disposal information, see Chapter 13 of MSDS. Observe all applicable local or national regulations.

Emergency Procedures:

Cut off the fire source, immediately contact the operating staff. Keep unrelated people rapidly evacuating to safe areas and isolation. As far as possible to cut off the source of leakage, prevent entering into sewers, drains, water and space. Refer to Chapter 8 of MSDS or the relevant fire-fighting procedures.

Operating staff protective measures:

Avoid contacting with skin and eyes.

Environmental protection measures:

Before operating staff arrive at the scene, as much as possible to make the spilled material under control. For a small amount of leakage, use sawdust, sand, soil or other adsorbent to collect leaking liquid and place it in a sealed, liquid-proof container, waiting to be processed; For a large number of leakage, build a causeway or dig to collect it, Ensure that it does not flow into the sewers, rivers, water and lowlands. Place spilled material in appropriate container for disposal. Report to relevant departments when the soil and plant was polluted.

Eliminate method:

For a large number of leakage, Pump it into a container with a vacuum pump; For a small amount of leakage, use sawdust, sand, soil, oil-absorbing cotton or other adsorbent to prevent proliferation and load it into the sealed container for processing; For land leakage, take protective measures and cut off the sources of pollution, reduce to a minimum for the pollution of surface water; For waterway leakage, Immediately use the oil boom to prevent the loss of oil, warn the surrounding vessel and, when necessary, use suitable dispersants. if significant spillages can not be processed, should inform the local authorities.

SECTION 7 HANDLING AND STORAGE

Handling:

General Precautionary Measures:

Avoid long or repeated contact with skin, if contact, thoroughly wash it. If you are at risk of inhaling steam, spray or smoke, Please use local exhaust ventilation device. When transport, please lightly touch it to prevent the package and containers destroy.

Safely handling attention:

Operators must learn special trainings and must strictly comply with regulations. Avoid contacting with oxidant. Equipped with enough fire equipments and leak emergency equipments. When loading or unloading 200L bottle products, you should wear protecting shoes. Empty containers may leave hazardous substances.

Storage condition:

Keep the container sealing, do not store it into open container or container without labels. Keep it cool, dry and ventilate. Keep it from strong oxidant, fire, heat source and inflammable. Store it in normal temperature. Empty container may leave partly products, do not cut or weld, do not leave it in fire or high temperature.

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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 -C50)	ACGIH	5 mg/m ³	10 mg/m ³	--	--
Highly refined mineral oil (C15 -C50)	MAC	--	--	--	--

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: 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance:	transparent oil liquid, colorless to pale yellow
Odor:	Odourless/Light petroleum.
pH:	Not applicable
Melting point:	Not applicable
Pour point:	-54°C
Initial Boiling Point:	>250°C
Flash point:	154 ° C (closed cup)
Explosion limit:	Not available
Vapor pressure:	<5kPa @ 40 °C
Vapor density:	Not available
Density:	835.1kg/m ³ (20 ° C)
Solubility:	insoluble in water
Octanol / water partition coefficient:	Not available
Auto-ignition temperature:	> 270 ° C
Decomposition temperature:	> 280 ° C
Kinematic viscosity:	10.30 at 40 ° C
DMSO extractable compounds	< 3%

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for base oil substance(s)
according to IP346

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability:	This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to avoid:	Avoid temperatures exceeding the flash point
Incompatibility With Other Materials:	May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products:	Under normal conditions of storage, hazardous decomposition products will not be formed. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Hazardous Polymerization:	Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity:

Eye Irritation:	The eye irritation hazard is based on evaluation of data for similar materials or product components.
Skin Irritation:	The skin irritation hazard is based on evaluation of data for similar materials or product components.
Skin Sensitization:	The skin sensitization hazard is based on evaluation of data for similar materials or product components.
Acute Dermal Toxicity:	The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Oral Toxicity:	The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Inhalation Toxicity:	The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.
Carcinogenicity:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Nota L – Meets EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346.
Reproductive toxicity:	Contains no ingredient listed as toxic to reproduction
Specific target organ toxicity - single exposure	Not classified
Specific target organ toxicity - repeated exposure	Not classified

ADDITIONAL TOXICOLOGY INFORMATION:

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).

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SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity	In the long time penetration, the material may result in ecotoxicity.
Persistence and degradability	This material is not expected to be readily biodegradable.
Potential bioaccumulation	This material has bioaccumulation potential component.
Mobility in soil	The material will be adsorbed to soil and not be mobile.

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

In the process of land, sea and air transport, the product is not classified as a dangerous substance

UN Dangerous Goods Code:	Not Applicable
UN Shipping Name:	Not Applicable
UN Hazard Classification:	Not Applicable
Packing group:	Not Applicable
Marine pollutant:	Not Applicable

SECTION 15 REGULATORY INFORMATION

According to Chinese relevant regulations, the product is not a hazardous chemicals.

Chinese chemical safety regulations	Management Ordinance of Dangerous Chemicals (March 2, 2011 revised by the State Council) Safe use of chemicals in the workplace ([1996] Ministry of Labor published No. 423) GB 6499-2005 Dangerous Goods Classification and Name ID GB/T 16483-2008 Material Safety Data Sheet Content and order GB 13690-2009 chemical classification and hazard communication of General Principles GB 12268-2012 Dangerous Goods GB 15258-2009 General rules for preparation of precautionary label GBZ 2.1-2007 Workplace Hazardous Occupational exposure limit harmful chemical factors All the regulations made corresponding provisions for the safe use, production, storage, transport, handling and otherwise of hazardous chemicals.
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SECTION 16 OTHER INFORMATION

Revision Date: June 28, 2019

Lubricant Company, SINOPEC CORP.

Revision Number **3**

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

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| TLV - Threshold Limit Value | TWA - Time Weighted Average |
| PEL - Permissible Exposure Limit | STEL - Short-term Exposure Limit |
| CAS - Chemical Abstract Service Number | ACGIH - American Conference of Governmental Industrial Hygienists |
| IMO/IMDG - International Maritime Dangerous Goods Code | API - American Petroleum Institute |
| MSDS - Material Safety Data Sheet | CVX - Chevron |
| NFPA - National Fire Protection Association (USA) | DOT - Department of Transportation (USA) |
| OSHA - Occupational Safety and Health Administration | NTP - National Toxicology Program (USA) |
| IARC - International Agency for Research on Cancer | |

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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