SAFETY DATA SHEET

According to Work Health and Safety Regulations 2011 and National Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals

Version 1.1

Issue date: 18/09/2019

Revision date: 23/05/2022 **SDS Record Number: CSSS-TCO-010-128834**

1. Identification of the material and supplier

Material name:	AE 46 Hydraulic Oil
Other Names:	-
Recommended use:	Suitable for high temperature, high pressure hydraulic systems, hydraulic system of mobile equipment and industrial equipment, as well as the hydraulic system with cleanliness requirements
Manufacturer:	
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:	86-800-810-9886
Fax:	86-10-82410856
Emergency number:	86-800-810-9886
Australia Supplier(Manufacturer):	International Lubricant Distributors Pty. Ltd.
Address:	21 Logistics Boulevard, Kenwick, WA 6107, Australia
Contact person(E-mail):	-
Telephone:	-
Fax:	+61 8 9381 1788
Emergency number:	1300 558 939
New Zealand Supplier(Manufacturer):	MTS ENERGY LTD
Address:	PO BOX 302-133 North Harbour, Auckland 0751, New Zealand
Telephone:	+64 9 480 8921
Fax:	+64 9 480 8398
Emergency number:	0800 399 993 (24 Hrs)

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.
Specific hazards:	Not applicable.

3. Composition/information on ingredients

Components	CAS No.	Percent
Highly refined mineral oil	Mixture	90 - 99 %weight
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	0.3 – 0.6%weight

4. First aid measures

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.

Notes to physician: Treat symptomatically.

5. Fire-fighting measures

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

Extinguishing media which must not be used for safety reasons: Not available.

Specific hazards arising from the chemical: 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.

Fire Fighting: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

HAZCHEM code None.

6. Accidental release measures

Personal precautions: Eliminate all sources of ignition in vicinity of spilled material.

Containment procedures: 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

Precautions for safe handling: 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 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. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure controls/personal protection

Control parameters Follow standard monitoring procedures

Occupational exposure limits

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Material	Type	Value	Form
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (CAS 68649-42-3)	TWA	2 mg/m3	Inhalable fraction.
		0.1 mg/m3	Respirable fraction.

Biological limit values: No biological exposure limits noted for the ingredient(s).

Exposure guidelines No exposure standards allocated.

Appropriate engineering controls: Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.

Hand protection: For prolonged or repeated contact use protective gloves.

9. Physical and chemical properties

Appearance:

Physical state: Liquid

Form: Liquid

Color:	Light to Brown
Odor:	Petroleum odor
Odour threshold:	Not available
PH:	Not available
Melting point/Freezing point:	Not available
Initial boiling point and boiling range:	>280°C (Estimated value)
Flash point:	(Cleveland Open Cup) 200 °C (392 °F) Minimum
Evaporation rate:	Not available
Flammability (solid, gas) :	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	<0.5Pa@20°C (Estimated value)
Vapor density:	>1 Minimum(air=1)
Density:	0.84- 0.93 kg/l(20°C)
Solubility (H_2O) :	Insoluble in water.
Partition coefficient (n-octanol/water) :	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic:	41.4 mm2/s-50.6mm2/s @40°C
Organic solvents:	Not available
Water:	Not available
VOC (EC) :	Not available
Solids contents:	Not available
Molecular Formula:	Not available
Molecular Weight:	Not available
Pour Point:	-36 °C (Typical)

10. Stability and reactivity

Reactivity:	The substance is stable under normal storage and handling conditions.
Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	Incompatible materials.
Incompatible materials:	May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous decomposition products:	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.

11. Toxicological information

Toxicological data:

Acute toxicity:

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

LD50(Oral, Rat):	3 100 mg/kg bw
LD50(Dermal, Rabbit):	> 3 160 mg/kg bw
LC50(Inhalation, Rat):	> 5 000 mg/m³ air
Skin corrosion/Irritation:	No data available.
Serious eye damage/irritation:	No data available.
Respiratory or skin sensitization:	No data available.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	No data available.

Reproductive toxicity: No data available.
STOT- single exposure: No data available.
STOT-repeated exposure: No data available.
Aspiration hazard: No data available.
Other information This product has no known adverse effect on human health.

12. Ecological information

Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	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.
Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods: Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Waste from residues/unused products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

ADG
- **UN number** Not regulated
- **Proper shipping name** Not regulated
- **Hazard class** Not regulated
- **Packing group** Not regulated
- **Labels required** Not regulated
- **Special precautions** Read safety instructions, SDS and emergency procedures before handling.

IATA
- **UN number** Not regulated
- **Proper shipping name** Not regulated
- **Hazard class** Not regulated
- **Packing group** Not regulated
- **Special precautions** Read safety instructions, SDS and emergency procedures before handling.

IMDG
- **UN number** Not regulated
- **Proper shipping name** Not regulated
- **Hazard class** Not regulated
- **Packing group** Not regulated
- **Environmental hazards**

Marine pollutant	No
Special precautions	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not regulated

15. Regulatory information

Safety, health and environmental regulations

National regulations This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011). Additional information is given in the Safety Data Sheet.

Australia Medicines & Poisons Appendix A/B/D/E/F/G/H/I/J/K / Australia Medicines & Poisons Schedule 10/2/3/5/6/7/8/9

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4

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

Australia National Pollutant Inventory (NPI): Threshold quantity

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (CAS 68649-42-3) 10 TONNES/YR Threshold Category: 1

High Volume Industrial Chemicals (HVIC)

Not listed.

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Resricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

International regulations

Stockholm Convention

Not applicable

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

Inventory status:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Not available
Canada	Domestic /Non-Domestic Substances List (DSL) /(NDSL)	Not available
China	Inventory of Existing Chemical Substances in China (IECSC)	Not available
Europe	European Inventory of Existing Commercial/ Notified Chemical Substances (EINECS) / (ELINCS)	Not available
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Not available
Korea	Existing Chemicals List (ECL)	Not available

New Zealand	New Zealand Inventory	Not available
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Not available
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Not available

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Indication of changes:	Version 1.1
Date of preparation or review:	2022.05.23
Training instructions:	Not applicable.
Further information:	This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.
Notice to reader:	Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.