Safety Data Sheet

AE 5000 Multigrade Long Life Hydraulic Oil 46

SECTION 1. Identification

GHS product identifier: AE 5000 Multigrade Long Life Hydraulic Oil 46

Other means of identification: See Section 3

Product Code 63000286

Recommended use of the chemical and restrictions on use:

Recommended use: Moderate to medium and high pressure hydraulic systems operating outdoors in cold regions or where there is a wide variation in ambient temperature or harsh working conditions, such as hydraulic systems of construction, mining, oil-industries, ships, vehicles, machine tools and various stationary hydraulic equipment.

Recommended Restrictions: Not available.

Supplier's details:

Supplier(Manufacturer): SINOPEC LUBRICANT CO.,LTD.

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SECTION 2. Hazards identification

Classification of the substance or mixture:

Physical hazards: Not classified

Health hazards: Not classified

Environmental hazards: Not classified

GHS label elements, including precautionary statements:

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 which do not result in classification: Not applicable

SECTION 3. Composition/information on ingredients

Chemical nature: Blend of mineral oils and additives.

Hazardous components:

Chemical Name	Synonyms	CAS No.	Concentration (% w/w)
Hindered phenol	2,6-Di-tert-butylphenol	128-39-2	0.01~3.0

ZDDP	Zinc Dialkyl Dithio Phosphate	68694-42-3	0.01~5.0

SECTION 4. First aid measures

Description of necessary first-aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

In case of 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.

In case of 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.

In case of eyes contact: Rinse the eyes with plenty of water.

In case of ingestion: Clean mouth with water and drink plenty of water.

Most important symptoms/effects, acute and delayed: The product is not classified as harmful to human health effect.

Indication of immediate medical attention and special treatment needed, if necessary: If skin irritation or rash occurs, get medical advice/attention.

SECTION 5. Fire-fighting measures

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

Unsuitable extinguishing media: Water.

Specific hazards arising from the chemical: In case of heat, fire and strong oxidants can lead to burning. Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes, nitrogen oxides, phosphate, certain metal.

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

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Provide adequate ventilation. Avoid skin and eye contact. Refer to section 8 of SDS for personal protection details.

For emergency responders: Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

Environmental precautions: Do not allow material to be released to the environment without proper governmental permits.

Methods and materials for containment and 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.

Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Additional information: Not applicable.

SECTION 7. Handling and storage

Precautions for safe handling:	Provide good ventilation. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Avoid contact with skin and eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.
Conditions for safe storage, including any incompatibilities:	Store in tightly closed original container in a dry, cool and well-ventilated place. 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.

SECTION 8. Exposure controls/personal protection

Control parameters:	Not available.
Appropriate engineering controls:	Use in a well-ventilated area.

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

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.
Thermal hazards:	Wear suitable protective clothing to prevent heat.

SECTION 9. Physical and chemical properties and safety characteristics

Appearance:

Physical state:	Yellow to brown transparent oily liquid
Form:	Liquid
Color:	Yellow to brown
Odor:	Odorless or slight odor
Melting point/ freezing point:	Not available
Boiling point or initial boiling point and boiling range:	Not available
Flammability:	Not available
Lower and upper explosion limit / flammability limit:	Not available
Flash point:	210 °C (open cup) (typ)
Auto-ignition temperature:	>320°C

Decomposition temperature:	Not available
PH:	Not available
Kinematic viscosity:	41.4mm^2/s – 50.6 mm^2/s (40°C)
Solubility :	Not available
Partition coefficient n-octanol/water (log value):	Not available
Vapor pressure:	Not available
Density and/or relative density:	0.84 kg/l - 0.95 kg/l(20°C)
Relative vapour density:	Not available
Particle characteristics:	Not available
Molecular weight:	Not available
Molecular formula:	Not available
Explosiveness:	Not explosive
Oxidising properties:	Not oxidizing

SECTION 10. Stability and reactivity

Reactivity:	The substance is stable under normal storage and handling conditions.
Chemical stability:	This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
Conditions to avoid:	Contact with incompatible materials.
Incompatible materials:	May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous decomposition products:	None known (None expected).

SECTION 11. Toxicological information

Acute toxicity:

LD50(Oral, Rat):	> 5000 mg/kg bw
LD50(Dermal, Rabbit):	> 5000 mg/kg bw
LC50(Inhalation, Rat):	> 10000 mg/m^3 bw
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

SECTION 12. Ecological information

Toxicity:

Highly refined mineral oil (CAS: 64742-44-5):

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

isopropanol (CAS: 67-63-0):

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	9640 mg/L - 10000 mg/L	96h	Fish	OECD 203	N/A	N/A
LC50	> 10000 mg/L	24h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: This product is expected to be inherently biodegradable.

Bioaccumulative potential: Bioaccumulation is unlikely due to the very low water solubility of this product; therefore bioavailability to aquatic organisms is minimal.

Mobility in soil: When released into the environment, adsorption to sediment and soil will Be the predominant behavior.

Results of PBT&vPvB assessment: No data available.

Other adverse effects: No data available.

SECTION 13. Disposal considerations

Disposal methods: The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

SECTION 14. Transport information

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated
Transport hazard class(es)	Not regulated	Not regulated	Not regulated
Packing group, if applicable	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No
Special precautions for user	See section 2	See section 2	See section 2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

SECTION 15. Regulatory information

Safety, health and environmental regulations specific for the product in question:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances	Yes

	(ENCS)	
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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).

SECTION 16. Other information

The date of preparation of the latest revision of the SDS:	MAR.1th ,2022
Legend to abbreviations and acronyms used in the SDS:	ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road RID: Regulations Concerning the International Transport of Dangerous Goods by Rail (European law) IMDG: International Maritime Dangerous Goods EINECS: European Inventory of Existing commercial Chemical Substances IATA: International Air Transport Association ICAO-TI: International Civil Aviation Organization《The International Civil Aviation Covenant》(ICAO) CAS: Chemical Abstracts Service LC50: Lethal Concentration 50 EC50: Concentration for 50% of maximal effect LD50: Lethal dose 50%
References and sources for data used to compile the SDS:	The European Chemicals Agency