

Version 1.0

Issue date: 12/01/2015

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SDS Record Number: CSSS-TCO-010-116061

Section 1 Identification of the substance/mixture and of the company/undertaking**Product identifier:**

Identification on the label/Trade name: L-TSA 46 Turbine Oil (Grade A)

Additional identification: Not available

Identification of the product: See section 3

Index Number: Not available

REACH registration No.: Not available

Relevant identified uses of the substance and uses advised against:**Identified uses:**

Suitable for lubrication and sealing of turbine installed in power plants or in other industrial uses.

Uses advised against:

Not available.

Details of the supplier of the safety data sheet:

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: 86-400-810-9886

Fax: 86-10-82410856

Emergency telephone Number:

86-400-810-9886 Only available during office hours (8:30a.m.-17:30p.m. Beijing Time Zone)

Available outside office hours? YES ☐ NO ☒**Section 2 Hazards Identification****Classification of the substance/mixture:**

GHS Classification

Not classified

Label elements:**Hazard Pictograms:**

No hazard pictogram is used.

Signal Word(S):

No signal word is used.

Hazard Statement:

Not applicable.

Precautionary statement:

Not applicable.

Other hazards:

Not available.

Section 3 Composition/information on ingredients**Substance/Mixture:**

Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Highly refined mineral oil (C15 – C50)	N/A	64742-44-5/64742-54-7/64742-55-8	265-146-1/ 265-157-1/265-158-7	95 - 99%
Alkylated Amine	N/A	Trade Secret	N/A	<0.5%

Section 4 First aid measures**Description of first aid measures:**

Product name: L-TSA 46 Turbine Oil (Grade A)

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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:

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

In case of ingestion:

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

Most important symptoms and effects, both acute and delayed:

The product is not classified as harmful to human health effect.

Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Fire-Fighting measures

Extinguishing media:

Suitable extinguishing media:

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

Unsuitable extinguishing media:

Water.

Special hazards arising from the substance or mixture

This material will burn although it is not easily ignited. 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.

Special fire fighting methods and 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 inhalation of vapour. 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 for Containment and Cleaning up:

Stop the source of the release if you can do it without risk. 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:

Protective measures:

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.

Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities:

Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area. 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.
Not applicable.

Specific end use(s):

Section 8 Exposure Controls/Personal Protection

Control parameters:

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA:

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US ACGIH Threshold Limit Values (TLV)	Highly refined mineral oil (C15 – C50)(CAS#64742-55-8)	Mineral oil, excluding metal working fluids - Pure, highly and severely refined / Mineral oil, excluding metal working fluids - Poorly and mildly refined	5 mg/m3	NotAvailable	Not Available	TLV® Basis: URT irr
US ACGIH Threshold Limit Values (TLV)	Highly refined mineral oil (C15 – C50)(CAS#64742-54-7)	Mineral oil, excluding metal working fluids - Pure, highly and severely refined / Mineral oil, excluding metal working fluids - Poorly and mildly refined	5 mg/m3	NotAvailable	Not Available	TLV® Basis: URT irr

EMERGENCY LIMITS:

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Highly refined mineral oil (C15 – C50)(CAS#64742-54-7)	Hydrotreated (mild & severe) heavy paraffinic distillates	45 mg/m3	500 mg/m3	3000 mg/m3

Ingredient	Original IDLH	Revised IDLH
Highly refined mineral oil (C15 – C50)(CAS#64742-44-5)	Not Available	Not Available
Highly refined mineral oil (C15 – C50)(CAS#64742-54-7)	Not Available	Not Available
Highly refined mineral oil (C15 – C50)(CAS#64742-55-8)	Not Available	Not Available

Exposure controls:

Appropriate engineering controls: Use in a well-ventilated area.

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.

Hand protection: Suggested materials for protective gloves include: Neoprene, Nitrile Rubber.

Body 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.

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.

Environmental exposure controls: Avoid discharge into the environment.
According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

Information on basic physical and chemical properties:

Appearance: Liquid

Colour: Transparent, yellow to brown

Odour:	Odorless or slight odor
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	Not available
Boiling point/range (°C):	>280°C (typical)
Flash point (°C):	220 °C (Open Cup)(typical)
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower flammability/explosive limits:	Not available
Vapour pressure (20°C):	<0.5MPa@40°C
Vapour density:	>1 (air=1)
Density:	0.84-0.91 kg/l (20°C)
Bulk density (kg/m³):	Not available
Water solubility (g/l):	Insoluble in water.
n-Octanol/Water (log Po/w):	> 6 (estimated value)
Auto-ignition temperature:	>260°C
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	41.4 mm²/s @ 40°C
Explosive properties:	Not available
Oxidising properties:	Not available
Molecular Formula:	Not available
Molecular Weight:	Not available
Other information:	
Fat solubility(solvent– oil to be specified) etc:	Soluble in hydrocarbon solvents
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available
Specific gravity:	Not available

Section 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:	May react with strong oxidizing agents.
Conditions to avoid:	Incompatible materials. Avoid extreme temperatures, sun exposure, the fire source.
Incompatible materials:	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.

Section 11 Toxicological information

Toxicokinetics, metabolism and distribution:

Non-human toxikological data:	Not available
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Information on toxicological effects:

Acute toxicity:	
LD50(Oral, Rat):	>5g/kg
LD50(Dermal, Rabbit):	>5g/kg
LC50(Inhalation, Rat):	>10g/m³
Acute toxicity:	
Highly refined mineral oil (C15 – C50) (CAS: 64742-44-5)	
LD50(Oral, Rat):	> 5000 mg/kg bw
LD50(Dermal, Rabbit):	> 2000 mg/kg bw
LC50(Inhalation, Rat):	2.18 mg/L air

Acute toxicity:

Highly refined mineral oil (C15 – C50) (CAS: 64742-54-7)

LD50(Oral, Rat): > 5000 mg/kg bw**LD50(Dermal, Rabbit):** > 2000 mg/kg bw**LC50(Inhalation, Rat):** 2.18 mg/L air**Acute toxicity:**

Highly refined mineral oil (C15 – C50) (CAS: 64742-55-8)

LD50(Oral, Rat): > 5000 mg/kg bw**LD50(Dermal, Rabbit):** > 2000 mg/kg bw**LC50(Inhalation, Rat):** 2.18 mg/L air**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**Section 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.**Bioaccumulative potential:** This material contains components with potential to bioaccumulation.**Mobility in soil:** If into the soil, this material will be adsorbed and not flow.**Results of PBT&vPvB assessment:** Not available.**Other adverse effects:** Not available.**Section 13 Disposal considerations****Waste treatment methods:** The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.**Product / Packaging disposal:** 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	Not regulated	Not regulated	Not regulated
Packaging group	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

Section 15 Regulation information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

Highly refined mineral oil (C15 – C50) (64742-44-5) is found on the following regulatory lists	"Singapore Permissible Exposure Limits of Toxic Substances" List.
Highly refined mineral oil (C15 – C50) (64742-54-7) is found on the following regulatory lists	"Singapore Permissible Exposure Limits of Toxic Substances" List.
Highly refined mineral oil (C15 – C50) (64742-55-8) is found on the following regulatory lists	"Singapore Permissible Exposure Limits of Toxic Substances" List.

Section 16 Other information**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.

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