

Safety Data Sheet

According to Hazard Communication Standard (29 CFR 1910.1200)

L-TSA 46 Turbine Oil

Version 1.0 Issue date: 06/11/2020 Revision date: 06/11/2020

SDS record number: CSSS-TCO-010-141156

1. Product and Company Identif	ication
Material name	L-TSA 46 Turbine Oil
CAS #	See section 3
Product code	60196273
Product use	Suitable for lubrication and sealing of turbine installed in power plants or in othe industrial uses.
Manufacturer/Supplier	
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:	00-86-95388-3
Fax:	86-10-82410856
Emergency telephone Number:	00-86-95388-3
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.
Other hazards	Not available.

3. Composition / Information on Ingredients

Components	CAS#	Percent	
Highly refined mineral oil (C15 – C50)	64742-44-5,64742-54-7,64742-55-8	95 - 99% weight	
Alkyl diphenylamine	68411-46-1	<0.5% weight	

4. First Aid Measures

First aid procedures

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

Inhalation

Ingestion

Notes to physician

5. Fire Fighting Measure

Flammable properties

Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media Firefighting equipment/instructions

Hazardous combustion products

6. Accidental Release Measures

Personal precautions

Environmental precautions Methods for cleaning up

7. Handling and Storage

Handling

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.

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

Not available.

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames. Not available.

This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Carbon monoxide, carbon dioxide, and unidentified organic compounds.

Eliminate all sources of ignition in vicinity of spilled material.

Do not let product enter drains.

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.

Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water. 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. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'. 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.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value	Form		
Highly refined mineral oil (C15	PEL	5 mg/m3	Mist.		
– C50) (CAS 64742-55-8)					
US. ACGIH Threshold Limit Va	alues				
Components	Туре	Value	Form		
Highly refined mineral oil (C15	TWA	5 mg/m3	Inhalable fraction.		
– C50) (CAS 64742-44-5)					
Highly refined mineral oil (C15	TWA	5 mg/m3	Inhalable fraction.		
– C50) (CAS 64742-54-7)					
Highly refined mineral oil (C15	TWA	5 mg/m3	Inhalable fraction.		
– C50) (CAS 64742-55-8)					
US. NIOSH: Pocket Guide to C	hemical Haz	ards			
Components	Туре	Value	Form		
Highly refined mineral oil (C15	STEL	10 mg/m3	Mist.		
– C50) (CAS 64742-55-8)					
	TWA	5 mg/m3	Mist.		
Biological limit values		No biological exposure limits noted for the ingredient(s).			
Appropriate engineering contr	rols:	Handle in accordance with good industrial hygiene and safety practice. Wash			
		hands before breaks and at the end of w	orkday.		
Individual protection measure	s, such as p	ersonal protective equipment:			
Eye / face protection		No special eye protection is normally re-	quired. Where splashing is possible, we		
		safety glasses with side shields as a goo	d safety practice.		
		, 0	,,		
Skin protection		No special protective clothing is normal			
Skin protection			ly required. Where splashing is possibl		
Skin protection		No special protective clothing is normal	ly required. Where splashing is possible on operations conducted, physic		
Skin protection		No special protective clothing is normal select protective clothing depending	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f		
Skin protection Respiratory protection		No special protective clothing is normal select protective clothing depending requirements and other substances in	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber.		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber. uired. No respiratory protection is ordinar		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr No respiratory protection is normally requ	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber. uired. No respiratory protection is ordinar use. In accordance with good industr		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr No respiratory protection is normally required under normal conditions of u	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber. nired. No respiratory protection is ordinar use. In accordance with good industr be taken to avoid breathing of material.		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr No respiratory protection is normally required under normal conditions of u hygiene practices, precautions should b	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber. aired. No respiratory protection is ordinar use. In accordance with good industri- be taken to avoid breathing of material. determine if airborne concentrations a		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr No respiratory protection is normally required under normal conditions of u hygiene practices, precautions should b user operations generate an oil mist,	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber. uired. No respiratory protection is ordinar use. In accordance with good industri- te taken to avoid breathing of material. determine if airborne concentrations a mineral oil mist. If not, wear an approve		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr No respiratory protection is normally required under normal conditions of u hygiene practices, precautions should b user operations generate an oil mist, below the occupational exposure limit for	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber. hired. No respiratory protection is ordinar use. In accordance with good industri- be taken to avoid breathing of material. determine if airborne concentrations a r mineral oil mist. If not, wear an approve tion from the measured concentrations		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr No respiratory protection is normally required under normal conditions of u hygiene practices, precautions should b user operations generate an oil mist, below the occupational exposure limit for respirator that provides adequate protect	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber. uired. No respiratory protection is ordinar use. In accordance with good industr the taken to avoid breathing of material. determine if airborne concentrations a mineral oil mist. If not, wear an approve tion from the measured concentrations use a particulate cartridge. Use a position		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr No respiratory protection is normally required under normal conditions of u hygiene practices, precautions should b user operations generate an oil mist, below the occupational exposure limit for respirator that provides adequate protect this material. For air-purifying respirators	ly required. Where splashing is possible on operations conducted, physic the workplace. Suggested materials f ile Rubber. uired. No respiratory protection is ordinar use. In accordance with good industr the taken to avoid breathing of material. determine if airborne concentrations a mineral oil mist. If not, wear an approve tion from the measured concentrations use a particulate cartridge. Use a position		
		No special protective clothing is normal select protective clothing depending requirements and other substances in protective gloves include: Neoprene, Nitr No respiratory protection is normally required under normal conditions of u hygiene practices, precautions should b user operations generate an oil mist, below the occupational exposure limit for respirator that provides adequate protect this material. For air-purifying respirators pressure air-supplying respirator in circu	ly required. Where splashing is possib of on operations conducted, physic the workplace. Suggested materials to ile Rubber. aired. No respiratory protection is ordinar use. In accordance with good industr be taken to avoid breathing of material. determine if airborne concentrations a r mineral oil mist. If not, wear an approv- tion from the measured concentrations use a particulate cartridge. Use a positi umstances where air-purifying respirator		

9. Physical & Chemical Properties

Appearance

Physical state

Form	Liquid
Color	Yellow to Brown
Odor	Petroleum odor
Odor threshold	Not available
рН	Not available
Vapor pressure	<0.01 mmHg Maximum @ 37.8 °C(100 °F)
Vapor density	>1 Minimum
Boiling point	Not available
Melting point/Freezing point	Not available
Solubility (water)	Soluble in hydrocarbon solvents; insoluble in water.
Density	0.84-0.91 kg/l @15°C (59°F) (Typical)
Flash point	(Cleveland Open Cup) 220 °C (428 °F) Minimum
Partition coefficient	Not available
Flammability limits in air, upper, %by volume	Not available
Flammability limits in air, lower, % by volume	Not available
Auto-ignition temperature	Not available
VOC	Not available
Percent volatile	Not available
Molecular Formula	Not available
Molecular Weight	Not available
Other data	
Viscosity	41.4 mm2/s @ 37.8°C (100°F) Minimum
Dissociation constant	Not available
Pour Point:	Not available
10. Chemical Stability & Reactivity Info	ormation
Reactivity	The substance is stable under normal storage and handling conditions.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Incompatible materials. Heat. Hot surfaces. Flames.
Incompatible materials	May react with strong acids or strong oxidizing agents, such as chlorates, nitrates,
	peroxides, etc.
Hazardous decomposition products	Carbon monoxide, carbon dioxide, and unidentified organic compounds.
Possibility of hazardous reactions	No hazardous reactions known.
11. Toxicological Information	
Toxicokinetics, metabolism and distribution	on:
Non-human toxicological data:	Not available
Information on toxicological effects:	
Acute toxicity:	
Highly refined mineral oil (CAS 64742-44-5)	
LD50(Oral, Rat):	> 5 000 mg/kg bw
LD50(Dermal, Rabbit):	> 5 000 mg/kg bw
LC50(Inhalation, Rat): Skin corrosion/Irritation:	> 5.53 mg/L air 4h Not classified
Skin corrosion/initation: Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Germ cen mutagemeny.	างปีงสองไปชื่น

Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

12. Ecological Information

Toxicity:

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

	Acute to	xicity	Time	Species	Method	Evaluation	Remarks	
	LL50	> 100 mg/L	96h	Fish	OECD 203	N/A	N/A	
	EL50	> 10 000 mg/L	48h	Daphnia	OECD 202	N/A	N/A	
	EC50	N/A	72h	Algae	OECD 201	N/A	N/A	
Persistence and degradability:		This ma	aterial is not e	xpected to be re	adily biodegrad	able. The biod	legrada	
			this ma	terial is based	l on an evaluatio	n of data for th	e components	or a sir
			materia	al.				
Bioaccumu	lative pote	ential:	Not ava	ailable.				
Mobility in soil:		Not ava	Not available.					
Results of PBT&vPvB assessment:		Not ava	ailable.					
Other adve	rse effects	:	Not ava	ailable.				
13. Dispo	sal Cons	siderations						
Disposal in	structions		Dispos	e of	contents/cor	itainer ir	accord	ance
			local/re	gional/nationa	al/international re	gulations.		
Contaminat	ed packag	jing	Since e	Since emptied containers may retain product residue, follow label warnings				
-		after co	after container is emptied.					
14. Trans	port Info	ormation						
DOT								
Basic s	hipping re	equirements:						
UN nur	nber		Not reg	julated				
Proper shipping name		Not reg	Not regulated					
Hazard class		Not reg	julated					
Packing group		Not reg	julated					
Enviro	nmental ha	mental hazards						
ΙΑΤΑ								
UN nur	nber		Not reg	julated				
UN pro	per shippi	ng name	Not reg	julated				
Transp	ort hazard	class(es)	Not regulated					
Packing	g group		Not reg	julated				
Enviror	nmental ha	azards	No					
IMDG								
UN nur	nber		Not reg	julated				
-	per shippi	-	Not reg					
-	ort hazard	class(es)	Not reg					
	g group		Not reg	julated				
Enviro	nmental ha	azards	No					

15. Regulatory Information					
US federal regulations					
Toxic Substances Control Act (TSCA)					
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)					
Not regulated.					
CERCLA Hazardous Substance List (40 CFR 302.4)					
Not listed.					
SARA 304 Emergency release notification					
Not regulated.					
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)					
Not regulated.					
Superfund Amendments and Reauthorization	Act of 1986 (SARA)				
SARA 302 Extremely hazardous substance					
Not listed.					
SARA 311/312 Hazardous chemical	No				
SARA 313 (TRI reporting)	Not regulated.				
Other federal regulations					
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List					
Not regulated.					
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)					
Not regulated.					
Safe Drinking Water Act (SDWA)	Not regulated.				
US state regulations					
California Proposition 65					
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3,					
subd. (a))					
Highly refined mineral oil (C15 – C50) (CAS 64742-44-5)					
Highly refined mineral oil (C15 – C50) (CAS	Highly refined mineral oil (C15 – C50) (CAS 64742-54-7)				
Highly refined mineral oil (C15 – C50) (CAS	64742-55-8)				
16. Other Information					
HMIS®ratings	Health: 1				
-	Flammability: 1				
	Physical hazard: 0				
NFPA ratings	Health: 1				
	Flammability: 1				
_	Instability: 0				
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.				
Issue date	06-11-2020				