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 1.3

Issue date: 18/09/2019

Revision date: 29/07/2025 **SDS Record Number: CSSS-TCO-010-117603**

1. Identification of the material and supplier

Material name: 4502 Synthetic Compressor Oil（ISO Viscosity Grade 68）

Other means of identification: -

Recommended use: Suitable for use in oil-flooded/oil injected single or two-stage rotary vane or screw air compressors.

Restrictions on use: This product is not recommended for any industrial, professional or consumer use other than the identified uses above. Avoid use in breathing air systems.

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

Australia:

Not classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

New Zealand:

Not classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

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 which do not result in classification:	Not applicable.

3. Composition/information on ingredients

Chemical nature: Mixtures，blend of synthetic base stocks and additives.

Components	CAS No.	Percent
N-fenyl-1-naftylamine	90-30-2	0.1 - 1.0 % weight
Tricresyl Phosphate（Ortho Isomer Content Is Less Than 0.2%）	1330-78-5	0.1 – 3.0 % 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.
Symptoms caused by exposure:	Not available.
Medical Attention and Special Treatment:	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media:	Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.
Extinguishing media which must not be used for safety reasons:	Not available.
Specific hazards arising from the chemical:	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 protective equipment and precautions for fire fighters:	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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Provide adequate ventilation. Avoid inhalation of vapour. Avoid skin and eye contact. Refer to section 8 of SDS for personal protection details.
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.

7. Handling and storage

Precautions for safe handling:	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.
Conditions for safe storage, including any incompatibilities:	Do not store in open or unlabeled containers. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.
Storage regulation	Classified as a Class C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS1940. This product should be stored and used in a well-ventilated area away from naked flames, sparks and other sources of ignition.

8. Exposure controls/personal protection

Control parameters – exposure standards, biological monitoring: Not available

Exposure Levels

Occupational exposure limits:

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)			
Components	**Type**	**Value**	**Form**
Not available.	Not available.	Not available.	Not available.
Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)			
Components	**Type**	**Value**	**Form**
Not available.	Not available.	Not available.	Not available.

No exposure standards have been established for this material.

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

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

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	
Physical state:	Liquid
Form:	Liquid
Color:	Light yellow to Brown
Odor:	Petroleum odor
Odour threshold:	Not determined
PH:	Not applicable (non-aqueous)
Melting point/Freezing point:	-42°C (-43.6°F) Typical
Boiling point and boiling range:	~370 ° C (at 1 atm, estimated)
Flash point:	>220 ° C (Open cup, ASTM D92)
Evaporation rate:	Not determined (negligible volatility)
Flammability (solid, gas) :	Not applicable
Upper/lower flammability or explosive limits:	0.9 % v/v – 7 % v/v
Vapor pressure:	<0.01 mmHg Maximum @ 37.8 °C (100 °F)
Vapor density:	>1 Minimum
Density:	0.916 kg/l @20°C (68°F) (Typical)
Solubility (H_2O) :	Insoluble in water. Soluble in hydrocarbon solvents.
Partition coefficient (n-octanol/water) :	High (log K_{ow} ≈ 7.7 – 8.4)
Auto-ignition temperature:	>270°C
Decomposition temperature:	No decomposition under normal conditions (decomposes upon burning)
Viscosity:	(Typical)67.75cSt@40°C(ISO 3448)
Specific heat value:	(Estimated)1.821 kJ/(kg • K) at 60 ° C
Particle size:	Not applicable (liquid)
Volatile organic compounds content:	~0%
% volatile:	~0%
Saturated vapour concentration:	Negligible at ambient temperature
Release of invisible flammable vapours and gases:	Not applicable (negligible vapor release at ambient conditions)
Additional parameters	
Shape and aspect ratio:	Not applicable (not relevant for a liquid)
Crystallinity:	Not applicable (not relevant for a liquid)

Dustiness:	Not applicable (not relevant for a liquid)
Surface area:	Not applicable (not relevant for a liquid)
Degree of aggregation or agglomeration:	Not available
Ionisation (redox potential):	Not available
Biodurability or biopersistence:	No data

10. Stability and reactivity

Reactivity:	Stable under recommended transport or storage conditions.
Chemical stability:	Stable under normal temperatures and pressures.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	Incompatible materials.
Incompatible materials:	Strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous decomposition 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.

11. Toxicological information

Toxicological data:	
Acute toxicity:	
LD50(Oral, Rat):	> 62 080 mg kg^{-1}
LD50(Dermal, Rabbit):	> 3 160 mg kg^{-1}
LC50(Inhalation, Rat):	> 0.13 mg L^{-1} (vapour, max. attainable)
Skin corrosion/Irritation:	Not expected to cause significant irritation (minimal skin irritancy observed)
Serious eye damage/irritation:	May cause mild, short-lasting eye discomfort (slight transient irritation)
Respiratory or skin sensitization:	Not expected to be a respiratory or skin sensitizer
Germ cell mutagenicity:	Not expected to be mutagenic (not genotoxic in studies)
Carcinogenicity:	Not expected to cause cancer . (Contains no listed carcinogens in IARC, NTP, or OSHA lists.)
Reproductive toxicity:	Not expected to be a reproductive toxicant
STOT- single exposure:	Not expected to cause target organ damage from a single exposure.
STOT-repeated exposure:	Not expected to cause organ damage from prolonged or repeated exposure.
Aspiration hazard:	Not expected to pose an aspiration hazard (due to high viscosity and low volatility).
Other information	This product has no known significant adverse health effects when used as intended. Synthetic ester base oils of this type have shown no mutagenic or sensitizing effects and are generally regarded as minimally toxic.
Information on routes of exposure	Inhalation (of mist/vapor at elevated temperatures), skin and eye contact, and accidental ingestion are the primary routes of exposure. However, a harmful airborne concentration is unlikely to be reached at ambient temperature due to the low volatility of the material.
Symptoms related to exposure	In most cases, this product is expected to cause minimal symptoms. Direct contact may produce mild transient irritation (e.g. temporary eye redness or slight skin oiliness). Inhalation of high concentrations of oil mists may cause slight respiratory irritation (coughing). Ingestion of large amounts may lead to nausea or diarrhea. No other significant symptoms are anticipated under normal use.
Numerical measures of toxicity	No data available.
Immediate, delayed and chronic health effects from exposure	There are no known delayed or chronic health effects associated with this product. Long-term exposure is not expected to result in cumulative toxicity or organ damage.

Studies on structurally similar materials have not shown significant chronic toxicity or reproductive effects.

12. Ecological information

Ecotoxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LL50	>0.62 mg/L	96h	Fish	OECD 203	Rainbow trout; no mortality at the highest attainable concentration.	N/A
LL50	>0.5 mg/L	48h	Daphnia	OECD 202	No acute lethality at saturation.	N/A
EC50	≈0.8 mg/L	72h	Algae	OECD 201	Growth inhibition, pseudokirchneriella subcapitata.	N/A

Persistence and degradability: The synthetic ester base oil is not readily biodegradable.

Bioaccumulative potential: This substance is highly hydrophobic (estimated log K_ow on the order of 8–10), which suggests a tendency to bioaccumulate.

Mobility in soil: Mobility in environmental compartments is very limited.

Other adverse effects: This material does not contain ozone-depleting substances and is not known to contribute to photochemical smog or global warming. 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

Safe handling and disposal methods: Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Disposal of any contaminated packaging:

Australia:

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

New Zealand:

Product Disposal

Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. In this specific case the product is a combustible substance and therefore can be sent to an approved high temperature incineration plant for disposal. Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed. Do not dispose into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected. In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.

Container Disposal

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service. Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous. In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

14. Transport information

Australia:

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

New Zealand:

Not classified as Dangerous Goods for transport according to the NZS 5433:2012 Transport of Dangerous Goods on Land.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

U.N. Number

None Allocated

Proper Shipping Name

None Allocated

DG Class

None Allocated

Packing Group

None Allocated

15. Regulatory information

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

Australia:

Not classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

New Zealand:

Not classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

Australia HVIC: Listed substance

Not available.

New Zealand Location Test Certificate

Subject to Regulation 55 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations a location test certificate is required when quantity greater than or equal to those indicated below are present.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
Not Applicable	Not Applicable	Not Applicable

New Zealand Approved Handler

Subject to Regulation 56 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations, the substance must be under the personal control of an Approved Handler when present in a quantity greater than or equal to those indicated below.

Class of substance	Quantities
Not Applicable	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 Substances List (DSL)	Not available.
Canada	Non-Domestic Substances List (NDSL)	Not available.
China	Inventory of Existing Chemical Substances in China (IECSC)	Not available.
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Not available.
Europe	European List of Notified Chemical Substances (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 1.3
Date of preparation or review:	2025.07.29
Key abbreviations or acronyms used:	CAS: Chemical Abstracts Service LC50: Lethal Concentration 50 EC50: Concentration for 50% of maximal effect LD50: Lethal dose 50% MAC: maximum allowable concentration，MAC) PC-TWA: permissible concentration-time weighted average PC-STEL: permissible concentration-short term exposure limit
reference	**Australia:** Standard for the Uniform Scheduling of Medicines and Poisons. Approved criteria for classifying hazardous substances [NOHSC: 1008(2004)]. National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC: 2011(2003)]. Australian Code for the Transport of Dangerous Goods by Road & Rail. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals. Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH)

New Zealand:

Workplace Exposure Standards and Biological Exposure Indices

Transport of Dangerous goods on land NZS 5433.

Preparation of Safety Data Sheets - Approved Code of Practice Under the HSNO Act 1996 (HSNO CoP 8-1 0906).

Assigning a hazardous substance to a group standard.

American Conference of Industrial Hygienists (ACGIH)