SINOPEC

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: 09/10/2021

Revision date: 23/05/2022

1. Identification of the material and supplier

Material name:	Sinopec Heavy-load Open Gear Grease 7420 (00)
Other means of identification:	-
Recommended use:	use in a wide variety of open gear applications. This product, containing high-viscosity base oil, is recommended for the lubrication of highly loaded open gears, such as power plant, cement plant and machine plant etc.
Restrictions on use:	-
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:	POBOX 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:

Diphenylamine is classified as 6.1C(oral) 6.1C(dermal) 6.1C(inhalation) 6.4A 6.9B (oral) 9.1A(crustacean) 9.1D(algal) 9.1D(fish) 9.3B 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

Components	CAS No.	Percent
Polyisobutylene	9003-27-4	35 - 45%

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:	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 equipment and precautions 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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Avoid build up of vapor. Ensure sufficient supply of air. Avoid contact with eyes or skin. Contact with water - danger of sliding. Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. Evacuate all unprotected personnel. Eliminate all sources of ignition in vicinity of spilled material.
Environmental precautions:	If leakage occurs, dam up. Prevent surface and ground-water infiltration, as well as ground

penetration. Prevent from entering drainage system. If accidental entry into drainage system occurs, inform responsible authorities.

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: Containers, even those that have been emptied, may contain explosive vapors. Do NOT cut, drill, grind, weld or perform similar operations on or near containers. Electrostatic discharge may be generated during pumping - this may result in fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

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 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 reconditioned or disposed of properly.

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	**Components**	**Components**
Not available.	Not available.	Not available.
Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)		
Components	**Components**	**Components**
Not available.	Not available.	Not available.

No exposure standards have been established for this material, however, the TWA National occupational Health And Safety Commission (NOHSC) exposure standards for stearates is 10 mg/m3.

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: Provide sufficient ventilation to keep airborne levels as low as possible. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

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:	Yellow to brown transparent oily liquid
Form:	Liquid
Color:	Yellow to brown
Odor:	Odorless or slight odor
Odour threshold:	Not available
PH:	Not available
Melting point/Freezing point:	Not available
Boiling point and boiling range:	Not available
Flash point:	>200 °C (open cup) (typ)
Evaporation rate:	Not available
Flammability (solid, gas) :	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	<0.5MPa(20°C)
Vapor density:	Not available
Density:	0.90 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:	Not available
Specific heat value:	Not available
Particle size:	Not available
Volatile organic compounds content:	Not available
% volatile:	Not available
Saturated vapour concentration:	Not available
Release of invisible flammable vapours and gases:	Not available
Additional parameters	
Shape and aspect ratio:	Not available

Crystallinity:	Not available
Dustiness:	Not available
Surface area:	Not available
Degree of aggregation or agglomeration:	Not available
Ionisation (redox potential):	Not available
Biodurability or biopersistence:	Not available

10. Stability and reactivity

Reactivity:	Stable under recommended transport or storage conditions.
Chemical stability:	Stable under normal temperatures and pressures.
Possibility of hazardous reactions:	Contact with strong oxidants.
Conditions to avoid:	Incompatible materials.
Incompatible materials:	Strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous decomposition products:	Carbon monoxide, carbon dioxide, and unidentified organic compounds.

11. Toxicological information

Toxicological data:

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:	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.
Information on routes of exposure	No data available.
Symptoms related to exposure	No data available.
Numerical measures of toxicity	No data available.
Immediate, delayed and chronic health effects from exposure	No data available.

12. Ecological information

Ecotoxicity:

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

Persistence and degradability:	This material is not expected to be readily biodegradable.
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

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)	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 (ENCS)	Yes
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).

16. Other information

Indication of changes:	Version 1.1
Date of preparation or review:	2022.05.23
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 IndustriaLHygienists (ACGIH)