

Safety Data Sheet

According to Hazard Communication Standard (29 CFR 1910.1200)

AP-S 320 Industrial Gear Oil

Version 1.0

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SDS record number: CSSS-TCO-010-141143

1. Product and Company Identification

| | |
|-----------------------------|---|
| Material name | AP-S 320 Industrial Gear Oil |
| CAS # | See section 3 |
| Product code | 60194016 |
| Product use | Suitable for lubrication of industrial gearboxes. |
| 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 |
|----------------------------------|------------|---------------|
| PAO synthetic base oil | Mixture | 85-90% weight |
| Additive package | Mixture | 1-5% weight |
| Trihydroxymethylpropyl trioleate | 11138-60-6 | 10-15%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

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.

Ingestion

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

Notes to physician

Treat symptoms.

5. Fire Fighting Measure**Flammable properties**

Not available.

Extinguishing media**Suitable extinguishing media**

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

Unsuitable extinguishing media

Not available.

Firefighting equipment/instructions

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.

Hazardous combustion products

Carbon monoxide, carbon dioxide, and unidentified organic compounds.

6. Accidental Release Measures**Personal precautions**

Eliminate all sources of ignition in vicinity of spilled material.

Environmental precautions

Do not let product enter drains.

Methods for 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**Handling**

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

This product has no PEL, TLV, or other recommended exposure limit.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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.

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.

General hygiene considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

9. Physical & Chemical Properties

Appearance

Physical state

Liquid

Form

Liquid

Color

Light to Brown

Odor

Petroleum odor

Odor threshold

Not available

pH

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

0.854 kg/l @ 20°C (68°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 | 288 mm ² /s ~352 mm ² /s @ 40° C (104° F) |
| Dissociation constant | Not available |
| Pour Point: | Not available |

10. Chemical Stability & Reactivity Information

| | |
|---|--|
| 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:

Non-human toxicological data: Not available

Information on toxicological effects:

Acute toxicity:

| | |
|---|----------------|
| LD50(Oral, Rat): | Not available |
| LD50(Dermal, Rabbit): | Not available |
| LC50(Inhalation, Rat): | Not available |
| 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 |

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. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Results of PBT&vPvB assessment: Not available.

Other adverse effects: Not available.

13. Disposal Considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Basic shipping requirements:

| | |
|------------------------------|---------------|
| UN number | Not regulated |
| Proper shipping name | Not regulated |
| Hazard class | Not regulated |
| Packing group | Not regulated |
| Environmental hazards | No |

IATA

| | |
|-----------------------------------|---------------|
| UN number | Not regulated |
| UN proper shipping name | Not regulated |
| Transport hazard class(es) | Not regulated |
| Packing group | Not regulated |
| Environmental hazards | No |

IMDG

| | |
|-----------------------------------|---------------|
| UN number | Not regulated |
| UN proper shipping name | Not regulated |
| Transport hazard class(es) | Not regulated |
| Packing group | Not regulated |
| Environmental hazards | 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 listed.

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.

16. Other Information

HMIS® ratings

Health: 0

Flammability: 1

Physical hazard: 0

NFPA ratings

Health: 0

Flammability: 1

Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

Issue date

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