

Safety Data Sheet According to Regulation (EC) No 1907/2006

I 0°C Transformer Oil (general)

Version 3.0 Issue date: 18/01/2018 Revision date: 18/01/2018

SDS Record Number: SINOPEC CCNT-G-010

Section 1 Identification of the substance/mixture and of the company/undertaking

| 1.1 Product identifier: | | |
|--|---|--|
| Identification on the label/Trade name: | I 0°C Transformer Oil (general) | |
| Additional identification: | Not available | |
| Identification of the product: | See section 3 | |
| Index Number: | Not available | |
| REACH registration No.: | Not available | |
| 1.2 Relevant identified uses of the substance a | and uses advised against: | |
| 1.2.1 Identified uses: | | |
| I 0 $^\circ C$ Transformer Oil (general) suitable for insulation and cooling medium in the oil-immersed transformer. | | |
| 1.2.2 Uses advised against: | | |
| Not available. | | |
| 1.3 Details of the supplier of the safety data sh | neet: | |
| Supplier(Only representative): | - | |
| Supplier(Manufacturer): | LUBRICANT COMPANY, SINOPEC CORP. | |
| Address: | No. 6 Anning Zhuang West Road, Haidian District, Beijing, P.R. China Post | |
| | number:100085 | |
| Contact person(E-mail): | csc.lube@sinopec.com | |
| Telephone: | 0086-400-810-9886 | |
| Fax: | 0086-10-82410856 | |
| 1.4 Emergency telephone Number: | | |
| 0086-400-810-9886 | | |
| Available outside office hours? | YES NO X | |

Section 2 Hazards Identification

2.1 Classification of the substance/mixture:

2.1.1 Classification:

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

| REGULATION (EC) No 1272/2008 | |
|----------------------------------|--------------|
| Hazard classes/Hazard categories | Hazard codes |
| Aquatic Chronic 3 | H412 |

For full text of H- phrases: see section 2.2.

2.2 label elements:

| Hazard Pictograms: | No hazard pictogram is used. |
|--------------------------|--|
| Signal Word(S): | No signal word is used. |
| Hazard Statement: | H412: Harmful to aquatic life with long lasting effects. |
| Precautionary statement: | P273: Avoid release to the environment. |

SINOPEC 《长城润滑油

2.3 Other hazards:

Not available.

Section 3 Composition/information on ingredients

Substance/Mixture:

Mixture

Ingredient(s):

| Chemical Name | Registration No. | CAS No. | EC No. | Concentration | Classification |
|---|-----------------------|------------|-----------|---------------|----------------|
| Distillates (petroleum), hydrotreated light paraffinic | 01-2119487077-29-0041 | 64742-55-8 | 265-158-7 | >89.6% | Not classified |
| Distillates(petroleum),solven t-refined light paraffinic | 01-2119487067-30-0020 | 64741-89-5 | 265-091-3 | <10% | Not classified |
| DBPC | 01-2119565113-46-0010 | 128-37-0 | 204-881-4 | <0.4% | H400 H410 |

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 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.

4.1.2 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.

4.1.3 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.

4.1.4 In case of ingestion:

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

4.2 Most important symptoms and effects, both acute and delayed:

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

4.3 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

| 5.1 Extinguishing media: | |
|--------------------------------------|--|
| Suitable extinguishing media: | Spray, foam, fire extinguishers, carbon dioxide fire extinguisher, dry powder fire |
| | extinguisher |
| Unsuitable extinguishing media: | Do not water. |
| 5.2 Special hazards arising from the | This product has a flash point over 150 $^\circ \! \mathbb{C}$ and it belongs to non-dangerous |
| substance or mixture | products. When it meets fever case, the fire and strong oxidants, it can cause a fire. |
| | 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. |
| 5.3 Advice for firefighters: | Must wear breathing apparatus in confined spaces when close to the ignition point. |

Section 6 Accidental release measures

6.2 Environmental Precautions:

6.1 Personal precautions, protective equipment and emergency procedures:

| 6.1.1 For non-emergency personnel: | Cut off the fire source, immediately contact the operating staff. Keep unrelated |
|------------------------------------|--|
| | people rapidly evacuating to safe areas and isolation. As far as possible to cut off |
| | the source of leakage, prevent entering into sewers, drains, water and space. Refer |
| | to Chapter 8 of MSDS or the relevant fire-fighting procedures. |
| 6.1.2 For emergency responders: | Wear an appropriate NIOSH/MSHA approved respirator if vapor is generated. |

Before operating staff arrive at the scene, as much as possible to make the spilled material under control. For a small amount of leakage, use sawdust, sand, soil or other adsorbent to collect leaking liquid and place it in a sealed, liquid-proof container, waiting to be processed; For a large number of leakage, build a causeway or dig to collect it, Ensure that it does not flow into the sewers, rivers, water and lowlands. Place spilled material in appropriate container for disposal. Report to relevant departments when the soil and plant was polluted.

6.3 Methods for Containment and Cleaning up:
For a large number of leakage, Pump it into a container with a vacuum pump; For a small amount of leakage, use sawdust, sand, soil, oil-absorbing cotton or other adsorbent to prevent proliferation and load it into the sealed container for processing; For land leakage, take protective measures and cut off the sources of pollution, reduce to a minimum for the pollution of surface water; For waterway leakage, Immediately use the oil boom to prevent the loss of oil, warn the surrounding vessel and, when necessary, use suitable dispersants. If significant spillages can not be processed, should inform the local authorities.
6.4 Reference to other sections:

See Section 13 for information on disposal.

| Section 7 Handling and storage | | |
|---|--|--|
| 7.1 Precautions for safe handling: | | |
| 7.1.1 Protective measures: | Avoid long or repeated contact with skin, if contact, thoroughly wash it. If you are at risk of inhaling steam, spray or smoke, Please use local exhaust ventilation device. When transport, please lightly touch it to prevent the package and containers destroy. | |
| 7.1.2 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. | |
| 7.2 Conditions for safe storage, including any incompatibilities: | Keep the container sealing, do not store it into open container or container without labels. Keep it cool, dry and ventilate. Keep it from strong oxidant, fire, heat source and inflammable. Store it in normal temperature. Empty container may leave partly products, do not cut or weld, do not leave it in fire or high temperature. | |
| | | |

7.3 Specific end use(s):

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits:

| Substance | | | Occupational Exposure Limit Value | | Occupational Exposure Limit Value | | |
|-------------------------|-----------|----------|-----------------------------------|--------|-----------------------------------|--------|-------|
| | | | (8-hour reference period) | | (15-minute reference period | | |
| | EINECS | CAS No. | ppm | mg/ m3 | ppm | mg/ m3 | Notes |
| | No. | | | | | | |
| 2,6-Ditertiary-butyl-pa | 204-881-4 | 128-37-0 | - | 10 | - | - | - |
| ra- cresol | | | | | | | |

8.1.2 Additional exposure limits under the Not available.

SINOPEC LUBRICANT CO., LTD.

Not applicable.

8.1.3 DNEL/DMEL and PNEC-Values:

8.2.1 Appropriate engineering controls:

conditions of use:

Not available.

8.2 Exposure controls:

Use adequate ventilation to keep airborne concentrations low.

8.2.2 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. | |
| 8.2 | 2.3 Environmental exposure controls: | Avoid discharge into the environment. | |
| | | According to local regulations, Federal and official regulations. | |

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

| ., | |
|--|---|
| Appearance: | Oil liquid |
| Colour: | Transparent, colorless to pale yellow |
| Odour: | Odourless/Light petroleum. |
| Odour threshold: | Not available |
| pH: | Not available |
| Melting point/range (°C): | Not available |
| Pour point: | -33℃(typical data) |
| Boiling point/range (℃): | >250°℃ |
| Flash point (°C): | 155 $^\circ\!\!\mathrm{C}$ (closed cup) <i>(typical data)</i> |
| Evaporation rate: | Not available |
| Flammability limit - lower (%): | Not available |
| Flammability (solid, gas): | Not available |
| Ignition temperature (℃): | Not available |
| Upper/lower flammability/explosive limits: | Not available |
| Vapour pressure (40℃): | <5kPa |
| Vapour density: | Not available |
| Density: | 838.9kg/m ³ (20℃) <i>(typical data)</i> |
| Bulk density (kg/m³): | Not available |
| Water solubility (g/l): | Insoluble in water |
| | |

| n-Octanol/Water (log Po/w): | Not available |
|--|---|
| Auto-ignition temperature: | > 270℃ |
| Decomposition temperature: | > 280 ℃ |
| Kinematic viscosity: | 9.187 mm/s² at 40°C <i>(typical data)</i> |
| Explosive properties: | Not available |
| Oxidising properties: | Not available |
| Molecular Formula: | Not available |
| Molecular Weight: | Not available |
| 9.2. Other information: | |
| Fat solubility(solvent- oil to be specified) | Not available |
| etc: | |
| Surface tension: | Not available |
| Dissociation constant in water(pKa): | Not available |
| Oxidation-reduction Potential: | Not available |
| DMSO extractable compounds | < 3% |
| for base oil substance(s) | |
| according to IP346 | |

Section 10 Stability and reactivity

| 10.1 Reactivity: | The substance is stable under normal storage and handling conditions. |
|--|--|
| 10.2 Chemical stability: | Stable at room temperature in closed containers under normal storage and handling |
| | conditions. |
| 10.3 Possibility of hazardous reactions: | No dangerous reactions known. |
| 10.4 Conditions to avoid: | Incompatible materials. Avoid temperatures exceeding the flash point. |
| 10.5 Incompatible materials: | May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, |
| | peroxides, etc. |
| 10.6 Hazardous decomposition products: | Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or |
| | low molecular weight hydrocarbons. |

Section 11 Toxicological information

| 11.1 Information on toxicological effe | ts: |
|--|----------------|
| Acute toxicity: | |
| LD50(Oral, Rat): | Not available |
| LD50(Dermal, Rabbit): | >5g/kg |
| 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 |
| Aspiration hazard: | |

Section 12 Ecological information

12.1 Toxicity:

DBPC(CAS# 128-37-0)

| | Acute toxicity | | Time | Species | Method | Evaluation | Remarks |
|---|----------------|-----------|--------|---------|----------|------------|---------|
| | LC50 | 1.1 mg/L | 96h | Fish | OECD 203 | N/A | N/A |
| | EC50 | 0.48 mg/L | 48h | Daphnia | OECD 202 | N/A | N/A |
| | EC50 | > 7 mg/L | 72h | Algae | OECD 201 | N/A | N/A |
| 12.2 Persistence and degradability: This material is not expected to be readily biodegradable. | | | lable. | | | | |
| | | | | | | | |

| 12.3 Bioaccumulative potential: | This material has bioaccumulation potential component. |
|--------------------------------------|--|
| 12.4 Mobility in soil: | The material will be adsorbed to soil and not be mobile. |
| 12.5 Results of PBT&vPvB assessment: | Not available. |
| 12.6 Other adverse effects: | Harmful to aquatic life with long lasting effects. |
| | |

Section 13 Disposal considerations

13.1 Waste treatment methods:

The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.

| 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 and the IBC Code | Not regulated | Not regulated | Not regulated | | |

Section 15 Regulation information

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

| Relevant information regarding authorization: | Not applicable. | | | |
|--|---|----|---|--|
| Relevant information regarding restriction: | Not applicable. | | | |
| Other EU regulations: | Employment restrictions concerning young person must be observed. For | | | |
| | use only by technically qualified individuals. | | | |
| Other National regulations: | Not applicable | | | |
| 15.2 Chemical Safety Assessment has been carried | YES | NO | Х | |
| out? | | | | |

Section 16 Other information

16.1 Indication of changes:

- Version 1.0 Amended by (EU) 2015/830
- 16.2 Training instructions:
 - Not applicable.

16.3 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.

16.4 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.