SAFETY DATA SHEET

Product Name: KOBELCO SUPER GREASE

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

COMPANY IDENTIFICATION
KOBE STEEL, LTD.
Engineering Department
Standard Compressor Division
Machinery Business
41 Niijima, Harima-cho, Kako-gun, HYOGO, 675-0155 JAPAN

EMERGENCY TELEPHONE NUMBER
Listed on page 9/9

Product Name: KOBELCO SUPER GREASE
Product USE: Lubricating oil

2. Hazards identification

hazard category
Skin sensitizer Category 1
Specific target organ systemic toxicity following single exposure Category 2
Specific target organ systemic toxicity following repeated exposure No Classification
Aspiration hazard No Classification

LABEL ELEMENTS
Precautionary pictograms:

Signal word: Warning
Hazard Statement:
May cause allergic skin reaction
May cause damage to organs (or state all organs affected (blood systems))

Precautionary Statements:
Prevention: Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.

Contaminated work clothing should not be allowed out of the workplace.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

Response:
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water.
IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/Mixture:</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredients and Concentration</td>
<td>Base Oil(s) 70-80</td>
</tr>
</tbody>
</table>

4. First-aid measures

**Inhalation:**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Cover the body with blankets to keep warm and quiet. If you feel unwell, seek medical advice.

**Skin Contact:**
Immediately flush skin with large amounts of water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**Eye Contact:**
Rinse with clean water carefully for several minutes. Remove contact lenses if present and if removal is easy, then continue rinsing. Rinse for 15 minutes at a minimum and seek medical attention.

**Ingestion:**
Do not induce vomiting. Drink [one glass][two glasses] of water. Call a physician [or poison control center] immediately.

5. Fire-fighting measures

**Suitable Extinguishing Media:**
Mist of loaded liquid, dry chemicals, carbon dioxide, fire foam, and dry sand are effective.

**Extinguishing Media to Avoid:**
Use of straight steam of water can cause a risk of spreading fire.

**Specific hazards arising from the chemical:**
In some cases of fire, may release irritant gases.
When burnt, may generate carbon monoxide and other toxic gases.
Fire Fighting: Spray water to the surrounding facilities for cooling. Keep unauthorized persons off the site of occurrence of fire and the surroundings. Even after extinction, cool containers thoroughly with plenty of water. Special protective equipment and precautions for fire fighters: Wear fire/flame resistant/retardant clothing. Fight fire from windward direction while wearing protective equipment. If contact with skin is expected, wear impervious protective equipment and gloves. Use air-breathing apparatus and protective clothing whenever necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment when working. Remove nearby potential ignition sources immediately. When mist is generated, use respiratory equipment to prevent inhalation of mist. Do not touch or walk through spillage. Pay attention to the site of spillage, which is slippery.

Environmental precautions: Prevent spreading of oil spill with earth and sand, sandbags, or other proper materials and use care not to allow the oil spill to flow to street drains, sewer systems, and rivers. At sea, install oil spill containment booms to prevent spreading of spills and absorb with absorption mat or other proper materials.

Methods and materials for containment and cleaning up: In case of spillage in small quantity, collect spillage by absorbing with earth, sand, sawdust, waste, or other proper materials. In case of spillage in large quantity, enclose with embankment to prevent spreading of spillage and collect spillage in empty containers to the extent possible.

Prevention of second accident: In case of spillage, immediately inform the organizations concerned of the spillage to prevent possible accidents and spreading of spillage. Remove nearby potential ignition sources immediately and make fire-extinguishing agents available. Remove spillage completely, and ventilate and clean the site and the surroundings.

7. Handling and storage

Handling Technical Measures: Keep away from any possible contact with sparks, open flames, and high-temperature materials, and do not allow release of vapor without justification. Use pumps or other proper equipment for taking out from containers. Do not siphon with your mouth using a tube. Do not drink. When mist is generated, use respiratory equipment to prevent inhalation of mist.
SAFETY DATA SHEET

Product Name: KOBELO SUPER GREASE

8. Exposure controls/personal protection

Appropriate engineering controls: In case of mist generation, enclose the source of mist generation, or install a ventilation system. Install eye cleaning and body cleaning equipment near the handling site.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Japan Society for Occupational Exposure Limits</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Oil(s)</td>
<td>None established ppm, None established mg/m³</td>
<td>None established ppm, None established mg/m³</td>
</tr>
<tr>
<td>Thickener</td>
<td>None established ppm, None established mg/m³</td>
<td>None established ppm, None established mg/m³</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>None established ppm, 3mg/m³(Mineral Oil Mist)</td>
<td>None established ppm, 5mg/m³(Mineral Oil Mist)</td>
</tr>
<tr>
<td>2,6-Di-tert-Butyl-4-Cresol</td>
<td>None established ppm, None established mg/m³</td>
<td>None established ppm, 2mg/m³(2,6-Di-tert-Butyl-4-</td>
</tr>
<tr>
<td>Phenothiazine</td>
<td>None established ppm, None established mg/m³</td>
<td>None established ppm, 5mg/m³Phenothiazin</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

Product Name: KOBELCO SUPER GREASE

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Semi solid</td>
</tr>
<tr>
<td>Color</td>
<td>Milky white</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight odor</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Dropping Point ≥ 260°C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water: Insoluble</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data</td>
</tr>
<tr>
<td>n-octanol/water</td>
<td>No data</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable when stored or preserved in a dark place at room temperature.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Keep away from any possible contact with strong oxidizing agents.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Contact with incompatible hazard substances</td>
</tr>
<tr>
<td></td>
<td>Prolonged heating, open flames, and ignition sources</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Use care to keep away from any possible contact with halogens, strong acids, alkalis, and acidifying substances.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>When burnt, may release carbon monoxide and other gases.</td>
</tr>
</tbody>
</table>

11. Toxicological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>For mixtures, hazard category was identified based on the classification criteria for mixtures.</td>
</tr>
</tbody>
</table>
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Product Name: KOBELCO SUPER GREASE

Acute toxicity (dermal): For mixtures, hazard category was identified based on the classification criteria for mixtures.
Acute toxicity (inhalation): For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin corrosion/irritation: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Serious eye damage/irritation: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Respiratory sensitization: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin sensitization: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Mutagenicity: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Carcinogenicity: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Reproductive toxicity: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Single exposure: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Multi exposure: For mixtures, hazard category was identified based on the classification criteria for mixtures.
Respiratory toxic: For mixtures, hazard category was identified based on the classification criteria for mixtures.

Ingredient

2,6-Di-tert-Butyl-4-Cresol
Acute toxicity (oral): LD50: 890~5800 mg/kg [rat], LD50: 890 mg/kg [rat]
Acute toxicity (dermal): LD50: > 2000 mg/kg [rat]
Skin corrosion/irritation: Mild [rabbit], Effect on animals: not entered
Serious eye damage/irritation: Mild [rabbit], Effect on animals: not entered
Respiratory sensitization: None [guinea pig], Effect on animals: not entered
Skin sensitization: Negative [guinea pig], Effect on person: not entered
Mutagenicity: Negative
Carcinogenicity: IARC: 3, ACGIH: A4, ACGIH: A4, IARC: 3
Respiratory toxic: Effect on person: not entered

Mineral Oil
Acute toxicity (oral): LD50: > 5000 mg/kg [rat]
Acute toxicity (dermal): LD50: > 5000 mg/kg [rat]

Phenothiazine
Acute toxicity (oral): LD50: 5000 mg/kg [rat], LD50: 1330 mg/kg [rat]
Acute toxicity (dermal): LDLo: 9400 mg/kg [rabbit]
Skin corrosion/irritation: Moderate [rabbit], Effect on person: not entered, Effect on animals: not entered
Serious eye damage/irritation: None [rabbit], Effect on person: not entered, Effect on animals: not entered
Respiratory sensitization: Effect on person: not entered
Skin sensitization: Effect on person: not entered, Effect on animals: not entered
Mutagenicity: Negative
12. Ecological information

<table>
<thead>
<tr>
<th>Product</th>
<th>Ecotoxicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish acute toxicity:</td>
<td>For mixtures, hazard category was identified based on the classification criteria for mixtures.</td>
<td></td>
</tr>
<tr>
<td>Algae acute toxicity:</td>
<td>For mixtures, hazard category was identified based on the classification criteria for mixtures.</td>
<td></td>
</tr>
<tr>
<td>Fish chronic toxicity:</td>
<td>For mixtures, hazard category was identified based on the classification criteria for mixtures.</td>
<td></td>
</tr>
<tr>
<td>Algae chronic toxicity:</td>
<td>For mixtures, hazard category was identified based on the classification criteria for mixtures.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Ecotoxicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-Di-tert-Butyl-4-Cresol</td>
<td>Daphnia acute toxicity: 48hrEC50: 0.84 mg/L</td>
<td></td>
</tr>
<tr>
<td>Phenothiazine</td>
<td>Algae acute toxicity: 72hEC50: &gt; 0.42 mg/L [Desmodesmus subspicatus], 72hEC50: 6 mg/L [Pseudokirchneriella subcapitata]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bioaccumulative potential: 230 - 2500 BCF method: OECD 305C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fish acute toxicity: 96hrLC50: &gt; 0.96 mg/L, 120hrLC50: 0.78 mg/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Daphnia acute toxicity: 48hrEC50: 0.055 mg/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Algae acute toxicity: 72hrErC50: 0.74 mg/L, 72hrEbC50: 0.31 mg/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Algae chronic toxicity: 72hrNOEC: 0.10 mg/L, 72hrNOEC: 0.10 mg/L</td>
<td></td>
</tr>
</tbody>
</table>

13. Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.
Every customer/user of the product should dispose of industrial waste on its own responsibility, otherwise it must rely on a company authorized by prefectural governor for treating industrial waste or a local public body involved in the disposal of industrial waste for proper disposal.
Before disposal of used container, remove contents completely.

14. Transport information

IMDG UN classification: Not applicable
Specific security precaution and condition of transportation: Transport containers without causing any significant friction or shaking.
15. Regulatory information

Korea (KECL) : All components are listed or exempted.
Australia (AICS) : In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
Canada (DSL) : In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
China (IECSC) : All components are listed or exempted.
EU (REACH) : In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
New Zealand (NZIoC) : In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
USA (TSCA) : All components are listed or exempted.
Philippines (PICCS) : In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
Taiwan : In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.

16. Other information

Disclaimer

We at KOBE STEEL, LTD. have prepared the copyrighted Safety Data Sheet to provide reference information on the hazardous chemical product of interest for our customers/users to ensure secure and safe handling. We would like every customer/user of the product to refer to the information and understand the necessity of taking appropriate measures for the actual handling conditions on their own responsibilities for optimum practical application of the product of interest. Consequently, the Safety Data Sheet is not intended to guarantee the safety of the product referenced to herein.
SAFETY DATA SHEET

SDS: 68866-0120E41EEN
Date Prepared: 2010/07/01
Date Revised: 2014/02/03

Product Name: KOBELCO SUPER GREASE

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