WOLFRACOAT® C
High-temperature lubricating paste

Description:
WOLFRACOAT C is a grey to copper-coloured high-temperature lubricating paste.
It has a chemical composition of synthetic hydrocarbon oil, silicate and pigments (e.g. copper, graphite).
The raw materials contain no lead, cadmium, nickel, sulphur or halogens.

Application:
In the entire range of plant engineering, e.g. power plants, chemical plants, refineries, in the iron and steel industry, in waste incineration plants, in the cement, lime, gypsum and fertilizer industries, in foundries, exhaust systems of combustion engines and in kiln installations.

Application notes:
Apply the paste in a thin layer to clean surfaces or threads or use a leather cloth to rub it on. It is important to obtain a uniform and coherent layer that is as thin as possible.

Minimum shelf life:
The minimum shelf life is approx. 24 months if the product is stored in the original closed container in a dry place.

Package sizes:
60 g tube
400 g grease cartridge
1.2 kg can
30 kg bucket

Product data:

<table>
<thead>
<tr>
<th>Colour, appearance</th>
<th>grey, copper-coloured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texture</td>
<td>homogeneous, fibred</td>
</tr>
<tr>
<td>Density, DIN 51 757, at 20 °C, g/cm³, approx.</td>
<td>1.01</td>
</tr>
<tr>
<td>Drop point, DIN ISO 2176, °C</td>
<td>–</td>
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<tr>
<td>Worked penetration, at 25 °C, DIN ISO 2137 (ASTM-D 217); 0.1 mm</td>
<td>270 to 310</td>
</tr>
<tr>
<td>Service temperature range*, °C, approx.</td>
<td>– 30 to 200 above that dry lubrication to 1200</td>
</tr>
<tr>
<td>Base oil viscosity, DIN 51 561 at 40 °C, mm²/s, approx.</td>
<td>120</td>
</tr>
<tr>
<td>Four-ball test, welding force, DIN 51 350 Pt 4, N</td>
<td>&gt; 2500</td>
</tr>
</tbody>
</table>

* Service temperatures are guide values which depend on the lubricant's composition, the intended use and the application method. Lubricants change their consistency, apparent dynamic viscosity or viscosity depending on the mechano-dynamical loads, time, pressure and temperature. These changes in product characteristics may affect the function of a component.

WOLFRACOAT C
• Efficient lubrication of friction points subject to sliding or rolling friction
• Efficient separation and lubrication of power-locking connections subject to static friction
• Improved sliding for easier assembly of press and transition fits
• Non-destructive disassembly of power-locking connections
• Approved for mining applications
## WOLFRACOAT® C Safety Data Sheet

### 1. Product name:
- **Name:** WOLFRACOAT C
- **Code-No.:** 099 113
- **Issue-department of Safety Data Sheet:** Chemical Documentation
- **Issue:** 22.03.2002

### 2. Composition / information on ingredients
- **Chemical characterization (preparation):** Synthetic hydrocarbon oil, silicate, solid lubricants

### 3. Hazards identification
- **No particular hazards known**

### 4. First aid measures
- **After inhalation:** Not applicable
- **After contact with skin:** Wash off with soap and plenty of water
- **After contact with eyes:** Rinse with plenty of water
- **After ingestion:** Do not induce vomiting. Obtain medical attention
- **Advice to doctor:** Treat symptomatically

### 5. Fire-fighting measures
- **Suitable extinguishing measures:** Water spray, foam, dry powder, carbon dioxide (CO₂)
- **Unsuitable extinguishing media:** High volume water jet
- **Special hazards:** In case of fire the following can be released: Carbon monoxide, hydrocarbons
- **Special protective equipment for firefighters:** Standard procedure for chemical fires
- **Additional information:** Water mist may be used to cool closed containers. In the event of fire and/or explosion do not breathe fumes

### 6. Accidental release measures
- **Personal precautions:** Not required
- **Environmental precautions:** Do not flush into surface water or sanitary sewer system
- **Methods for cleaning up / taking up:** Use mechanical handling equipment. Dispose of absorbed material in accordance with the regulations
- **Additional information:** None

### 7. Handling and storage
- **Advice on safe handling:** No special handling advice required
- **Advice on protection against fire and explosion:** No special precautions required
- **Requirements on storage rooms and vessels:** Store at room temperature in the original container
- **Incompatible materials:** Incompatible with oxidizing agents. Do not store together with food
- **Further information on storage conditions:** None

### 8. Exposure controls / personal protection
- **Additional advice on system design:** Not applicable
- **Ingredients and specific control parameters:** None
- **Respiratory protection:** No special protective equipment required
- **Hand protection:** No special protective equipment required
- **Eye protection:** No special protective equipment required
- **Body protection:** No special protective equipment required
- **Other protection measures:** No special protective equipment required
- **General protection and hygiene measures:** Avoid prolonged and/or repeated contact with skin. Remove soiled or soaked clothing immediately. Clean skin thoroughly after work; apply skin cream

### 9. Physical and chemical properties
- **Form:** Paste
- **Colour:** Grey – copper
- **Odour:** Characteristic
- **Density:** approx. 1.01 g/cm³, 20 °C
- **Water solubility:** Insoluble
- **Vapour pressure:** Not applicable
- **Kinematic viscosity:** Not applicable

### 10. Stability and reactivity
- **Conditions to avoid:** None
- **Materials to avoid:** Strong oxidizing agents
- **Hazardous decomposition products:** None under normal use
- **Additional information:** None

### 11. Toxicological information
- **The toxicological data has been taken from products of similar composition**
- **Acute toxicity:** LD₅₀/oral/rat = > 2 g/kg (literature data)
- **Chronic toxicity:** None
- **Human experience:** Prolonged skin contact may cause skin irritation and/or dermatitis

### 12. Ecological information
- **Information on elimination (persistence and degradability):** Product is insoluble in water. May be separated out mechanically in purification plants
- **Behaviour in environmental compartments:** Ecological injuries are not known or expected under normal use
- **Ecotoxic effects:** Aquatic toxicity is unlikely due to low solubility
- **Additional information:** Should not be released into the environment

### 13. Advice on Disposal
- **Code of waste:** 120 112, Wastes from shaping and surface treatment of metals and plastics; wastes from shaping (including forging, welding, pressing, drawing, turning, cutting and filling); spent waxes and fats
- **Disposal:** Can be incinerated when in compliance with local, state and federal regulations. The code of waste has to correspond to the Council Directive 75/442/EEC and be specific as far as the related sector and process are concerned
- **Dispose of contaminated packaging and recommended cleaning:** Offer rinsed packaging material to local recycling facilities

### 14. Transport information
- **GVV / GGVE:** Not applicable
- **ADN / ADNR:** Not classified
- **IMDG-Code:** 9
- **UN number:** 3077
- **UN packaging group:** III
- **EMS:** None
- **Marine pollutant:** PP
- **ICAO / IATA-DGR:** 9
- **UNID number:** 3077
- **ICAO-packaging group:** III
- **Name:** Environmentally hazardous substances, solid, n.o.s. (Copper metal powder)
- **Further information:** None

### 15. Regulatory information
- **Labelling according to EU-guidelines:** The product does not require a hazard warning label in accordance with EC-direcives/German regulations on dangerous substances
- **National regulations:**

### 16. Other information
- **Issue-department of Safety Data Sheet:** Chemical Documentation
- **Tel.:** ++49 - 89 78 78 76 - 564

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The data in this product information is based on our general experience and knowledge at the time of printing and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary tests with the selected product. We recommend contacting our Technical Consulting Staff to discuss your specific application. If required and possible we will be pleased to provide a sample for testing. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this product information at any time without notice.

Klüber Lubrication München KG, a member of the Freudenberg group.