

Klübersynth® CTH 2-260

High-temperature oil for oil-lubricated stenters in the textile industry



Description:

Klübersynth CTH 2-260 is a special high-temperature oil providing reliable lubrication even at high temperatures and under increased loads. It is an advanced product based on existing high-temperature oils.

Klübersynth CTH 2-260 has only slight evaporation losses at high temperatures and – provided the friction points are always covered with an oil film – does not form any lacquer-like residues.

In addition, Klübersynth CTH 2-260 dissolves pasty used oil residues at the lubrication point which maintains high-quality lubrication. It also exhibits good spreading properties and thus ensures that a lubricating film is formed quickly.

Application:

As already mentioned, Klübersynth CTH 2-260 is an advanced product based on existing high-temperature oils; it features improved properties and can replace the Klüber chain oils currently available for the lubrication of chains operating at high temperatures.

This applies to all types of oil-lubricated stenter chains, e.g.

- roller chains
- chains or clips supported by ball bearings with a combined lubrication of the bearings, chain links and slide rails
- slide chains with a combined lubrication of the slide rails, chain links and chain bolts

in

equalizing frames,
single-layer stenters,
tier frames,
loop driers,
festoon steamers,
coating plants.

Findings from field tests and practical applications:

- The improved viscosity-temperature relation, which is characterized by a high viscosity index, results in better cold-starting properties of the machine and in reduced power consumption.
- Increased spreading properties ensure rapid wetting of the friction points, especially of the chain links.
- The product shows good adhesiveness and sufficient spreading properties in long machines.
- Chain soiling due to oil residues is reduced, thus providing extended chain cleaning intervals when evenly and properly applied.
- Separates condensate residues at the friction points – depending on the respective product.

Klübersynth CTH 2-260

- Provides reliable lubrication even at high operating temperatures
- Does not form any lacquer-like residues with quasi-continuous total loss lubrication
- Has only slight evaporation losses at high temperatures
- Dissolves pasty residues of used oil at the friction points and thus improves lubrication
- Is compatible with nonferrous metals
- Exhibits excellent spreading and wetting properties

Product data:

Colour, appearance	yellow, clear
Base oil	fully synthetic
Density at 20 °C, DIN 51 757, g/cm ³ , approx.	0.91
Kinematic viscosity, DIN 51 561 at 20 °C, mm ² /s, approx. at 40 °C, mm ² /s, approx. at 100 °C, mm ² /s, approx.	820 260 30
Viscosity index, DIN ISO 2909, VI, approx.	150
Flash point, DIN ISO 2592 (open cup), °C, approx.	250
Operating temperature range*, °C, approx.	up to 250

* 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 mechanical loads, time, pressure and temperature. These changes in product characteristics may affect the function of a component.

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Application Instructions:

The Klüber chain oils currently in use can be replaced by Klübersynth CTH 2-260 without having to carry out special measures. It is miscible/compatible with these oils, thus making it unnecessary to clean the chain systems in advance if they are in a normal service condition. Oil reservoirs, however, should be completely emptied prior to the application of Klübersynth CTH 2-260 and then be refilled.

Depending on the manufacturers' instructions on viscosity, Klübersynth CTH 2-260 can be applied using standard pump, spray and metering systems. The lubrication intervals and the lubricant quantity to be applied are dependent on the chain design, the lubrication mode and the variable operating conditions.

1.5 to 2 ml of oil per meter of chain and operating shift is an approximate value for chain oil consumption in stenter chains at operating temperatures of less than 180 °C.

If possible, the chain/slide rails have to be lubricated continuously or at least in short intervals, taking into consideration the structural design and the length of the chains. Extended lubrication intervals do not pay, they increase the risk of wear damage due to lubricant starvation.

It is much more advantageous to regularly apply a metered quantity of lubricant every day or in every operating shift.

Overlubrication should be avoided since it might result in oil splashes and contamination of the product.

Note:

According to the experience we gained in field tests and in practice, Klübersynth CTH 2-260 does not form any lacquer-like residues when properly applied, i.e. the chains and slide rails should always be covered with an oil film. In case of excessive heat, however, if the relubrication intervals were too long, there may be powdery residues after the lighter components of the lubricant have evaporated.

Timely application of fresh oil will result in the dissolving of these residues and will ensure proper lubricant supply to the friction points.

Storage:

Store at room temperature, if possible.

Note:

Oil stored at room temperature is easy to pour and will properly circulate in the lubrication system.

Package sizes:

5 l canister
5 x 5 l canister
40 x 5 l canister

20 l canister
3 x 20 l canister
10 x 20 l canister

200 l drum

Klübersynth® CTH 2-260

Safety Data Sheet

<p>1.1 Product name: Klübersynth CTH 2-260 Code-No.: 002 108 27.08.1999</p>	<p>9. Physical and chemical properties</p> <table border="0"> <tr><td>Form</td><td>liquid</td></tr> <tr><td>Colour</td><td>yellow</td></tr> <tr><td>Odour</td><td>characteristic</td></tr> <tr><td>Pour point</td><td>< - 30 °C, DIN ISO 3016</td></tr> <tr><td>Flash point</td><td>~ 250 °C, DIN ISO 2592</td></tr> <tr><td>Flammability</td><td>not applicable</td></tr> <tr><td>Ignition temperature</td><td>not applicable</td></tr> <tr><td>Autoflammability</td><td>not applicable</td></tr> <tr><td>Lower explosion limit</td><td>not applicable</td></tr> <tr><td>Upper explosion limit</td><td>not applicable</td></tr> <tr><td>Vapour pressure-first</td><td>not applicable</td></tr> <tr><td>Density</td><td>approx. 0.91 g/cm³, 20 °C, DIN 51 757</td></tr> <tr><td>Water solubility</td><td>insoluble</td></tr> <tr><td>pH value</td><td>not applicable</td></tr> <tr><td>Kinematic viscosity</td><td>approx. 260 mm/s, 40 °C, DIN 51 562</td></tr> <tr><td>Further information</td><td>none</td></tr> </table>	Form	liquid	Colour	yellow	Odour	characteristic	Pour point	< - 30 °C, DIN ISO 3016	Flash point	~ 250 °C, DIN ISO 2592	Flammability	not applicable	Ignition temperature	not applicable	Autoflammability	not applicable	Lower explosion limit	not applicable	Upper explosion limit	not applicable	Vapour pressure-first	not applicable	Density	approx. 0.91 g/cm ³ , 20 °C, DIN 51 757	Water solubility	insoluble	pH value	not applicable	Kinematic viscosity	approx. 260 mm/s, 40 °C, DIN 51 562	Further information	none
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<p>1.2 Klüber Lubrication München KG Emergency telephone no.: Geisenhausenerstraße 7 ++49 - 89 - 78 76 - 0 D-81379 München Tel. ++49 - 89 - 78 76 - 0 telephone exchange Fax: ++49 - 89 - 78 76 - 333</p>	<p>10. Stability and reactivity</p> <p>Conditions to avoid: Do not heat above flash point Materials to avoid: Strong oxidizing agents Hazardous decomposition products: None under normal use Additional information: None</p>																																
<p>2. Composition / information on ingredients Chemical characterization (preparation): Ester oil, synthetic hydrocarbon oil Additional information: No hazardous ingredients</p>	<p>11. Toxicological information</p> <p>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</p>																																
<p>3. Hazards identification No particular hazards known</p>	<p>12. Ecological information</p> <p>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</p>																																
<p>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. If swallowed or in the event of vomiting, risk of product entering the lungs</p>	<p>13. Advice on Disposal</p> <p>Disposal: Dispose of in accordance with your local, state and federal regulations as used oil for incineration Dispose of contaminated packaging and recommended cleaning: Offer rinsed packaging material to local recycling facilities</p>																																
<p>5. Fire-fighting measures Suitable extinguishing media: 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</p>	<p>14. Transport information</p> <table border="0"> <tr><td>GGVS / GGVE:</td><td>not applicable</td></tr> <tr><td>ADN / ADN R:</td><td>not applicable</td></tr> <tr><td>IMDG-Code:</td><td>not applicable</td></tr> <tr><td>ICAO / IATA-DGR:</td><td>not applicable</td></tr> </table> <p>Further information: Not classified as dangerous in the meaning of transport regulations</p>	GGVS / GGVE:	not applicable	ADN / ADN R:	not applicable	IMDG-Code:	not applicable	ICAO / IATA-DGR:	not applicable																								
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<p>6. Accidental release measures Personal precautions: Risk of slipping due to leakage/spillage of product Environmental precautions: Do not flush into surface water or sanitary sewer system Methods for cleaning up / taking up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dispose of absorbed material in accordance with the regulations Additional information: None</p>	<p>15. Regulatory information</p> <p>Labelling according to EU-guidelines: The product does not require a hazard warning label in accordance with EC-directives/German regulations on dangerous substances National regulations</p>																																
<p>7. Handling and storage Advice on safe handling: Avoid formation of aerosol Advice on protection against fire and explosion: No special precautions required Requirements on storage rooms and vessels: No special storage conditions required Incompatible materials: Incompatible with oxidizing agents. Do not store together with food Further information on storage conditions: Store at room temperature in the original container</p>	<p>16. Other information</p> <p>Issue-department of Safety Data Sheet: Chemical Documentation, Tel.: ++49 - 89 - 78 76 - 564</p>																																
<p>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. Clean skin thoroughly after work; apply skin cream. Remove soiled or soaked clothing immediately. Do not inhale aerosol</p>																																	

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.



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Klüber Lubrication München KG, une société appartenant au groupe Freudenberg
Klüber Lubrication München KG, una Società del Gruppo Freudenberg
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