

# Klüber Silvertex® T 22, T 32, T 46

High-performance, antiwear needle and sinker oils



## Description

Klüber Silvertex T are high-performance needle and sinker oils based on highly refined mineral oils and synthetic ester.

Klüber Silvertex T oils contain special additives which meet the manifold operating requirements in today's knitting mills. These oils are scourable with conventional washing liquors.

Klüber Silvertex T oils are compatible with elastane fibers.

## Application

Klüber Silvertex T oils lubricate needles, sinkers, needle cams, needle cylinders, dials and sinker rings.

The special additives contained in the Klüber Silvertex T oils keep needle tracks clean and extend the service life of needles and sinkers.

Klüber Silvertex T oils are available in ISO VG 22, 32 and 46 viscosity grades. They are suitable for all applications in hosiery, circular and flat-bed knitting machines.

Please observe the machine manufacturer's viscosity recommendations.

## Application notes

Klüber Silvertex T oils can be precisely metered by means of conventional oil feeders.

Before changing to Klüber Silvertex T oils, please make sure that the oil feeders are drained and the oil containers are thoroughly cleaned. Different types of needle oils should never be mixed. We recommend Klüber Solutin Tex M or Klüber Silvertex R 14, our special cleaning agents, to clean your machines.

The lubricant quantity applied after cleaning should be monitored and readjusted, if required.

## Minimum shelf life

The minimum shelf life is approx. 12 months if the product is stored in the original closed container in a dry place.

## Pack sizes

20 l canister  
200 l drum

## Klüber Silvertex T oils

- Scourable with conventional washing liquors
- Good corrosion protection
- Noise and oscillation dampening
- Compatible with elastane fibers
- Suitable for oil circulation systems in hosiery knitting machines
- Emulsifiable

## Product data

	Klüber Silvertex T 22	Klüber Silvertex T 32	Klüber Silvertex T 46
Color, aspect	colorless, clear	colorless, clear	colorless/light yellow, clear
Density DIN 51757, at 20°C, g/ml, approx.	0.87	0.87	0.88
Kinematic viscosity DIN 51562 at 40°C, mm <sup>2</sup> /s, approx.	22,8	32	46
at 100°C mm <sup>2</sup> /s, approx.	4.4	5.3	7.4
Pour point, DIN ISO 3016, °C, approx.	≤ -9	≤ -9	≤ -9
Flash point, DIN ISO 2176, °C, approx.	> 190	> 190	> 190

# Klüber Silvertex® T 22, T 32, T 46

## Safety Data Sheet

<p><b>1.1 Product name: Klüber Silvertex a) T 22, b) T 32, c) T 46</b>  <b>Code-No.:</b> a) 035 507, b) 035 508, c) 035 509  14.09.2000</p>	<p><b>9. Physical and chemical properties</b></p> <table border="0"> <tr><td>Form</td><td>liquid</td></tr> <tr><td>Colour</td><td>colourless</td></tr> <tr><td>Odour</td><td>characteristic</td></tr> <tr><td>Pour point</td><td>≤ -9 °C, DIN ISO 3016</td></tr> <tr><td>Flash point</td><td>&gt; 190 °C, DIN ISO 2592</td></tr> <tr><td>Ignition temperature</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>a, b) approx. 0.87 g/cm<sup>3</sup>, c) approx. 0.88 g/cm<sup>3</sup>, 20 °C, DIN 51 757</td></tr> <tr><td>Water solubility</td><td>emulsifiable</td></tr> <tr><td>pH value</td><td>neutral</td></tr> <tr><td>Kinematic viscosity</td><td>a) approx. 22 mm<sup>2</sup>/s, b) approx. 32 mm<sup>2</sup>/s, c) approx. 46 mm<sup>2</sup>/s, 40 °C, DIN 51 562</td></tr> <tr><td>Further information</td><td>none</td></tr> </table>	Form	liquid	Colour	colourless	Odour	characteristic	Pour point	≤ -9 °C, DIN ISO 3016	Flash point	> 190 °C, DIN ISO 2592	Ignition temperature	not applicable	Lower explosion limit	not applicable	Upper explosion limit	not applicable	Vapour pressure-first	not applicable	Density	a, b) approx. 0.87 g/cm <sup>3</sup> , c) approx. 0.88 g/cm <sup>3</sup> , 20 °C, DIN 51 757	Water solubility	emulsifiable	pH value	neutral	Kinematic viscosity	a) approx. 22 mm <sup>2</sup> /s, b) approx. 32 mm <sup>2</sup> /s, c) approx. 46 mm <sup>2</sup> /s, 40 °C, DIN 51 562	Further information	none
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<p><b>1.2</b> Klüber Lubrication München KG      <b>Emergency telephone no.:</b>  Geisenhausenerstraße 7                    <b>++49 - 89 7876 - 0</b>  D-81379 München  Tel. ++49 - 89 78 76 - 0 telephone exchange  Fax: ++49 - 89 78 76 - 333</p>																													
<p><b>2. Composition / information on ingredients</b>  Chemical characterization (preparation): Mineral oil, emulsifier, ester oil</p>																													
<p><b>3. Hazards identification</b>  No particular hazards known</p>																													
<p><b>4. First aid measures</b>  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><b>5. Fire-fighting measures</b>  Suitable extinguishing media: Water spray, foam, dry powder, carbon dioxide (CO<sub>2</sub>)  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><b>6. Accidental release measures</b>  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><b>7. Handling and storage</b>  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><b>8. Exposure controls / personal protection</b>  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>																													
	<p><b>10. Stability and reactivity</b>  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><b>11. Toxicological information</b>  The toxicological data has been taken from products of similar composition  Acute toxicity: LD<sub>50</sub>/oral/rat = &gt; 2 g/kg (literature data)  Chronic toxicity: None  Human experience: Prolonged skin contact may cause skin irritation and/or dermatitis</p>																												
	<p><b>12. Ecological information</b>  Information on elimination (persistence and degradability): The product has not been tested  Behaviour in environmental compartments: Ecological injuries are not known or expected under normal use  Ecotoxic effects: The product has not been tested  Additional information: Do not discharge product unmonitored into the environment</p>																												
	<p><b>13. Advice on Disposal</b>  Disposal: Dispose of in accordance with your local, state and federal regulations as used oil for reconditioning  Dispose of contaminated packaging and recommended cleaning: Offer rinsed packaging material to local recycling facilities</p>																												
	<p><b>14. Transport information</b></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><b>15. Regulatory information</b>  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><b>16. Other information</b>  Issue-department of Safety Data Sheet: Chemical Documentation,  Tel.: ++49 - 89 7876 - 564</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.



Klüber Lubrication München KG, a member of the Freudenberg group