

**TM-40**

Version 1.1

Revision Date 17.11.2015

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**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**Product information**

Product name : TM-40

Article-No. : 340181

Use of the Substance/Mixture : Lubricating oil

Company : KLÜBER LUBRICATION MÜNCHEN  
Geisenhausenerstrasse 7  
D-81379 München  
Deutschland  
Phone: +49 (0) 897876-0  
Fax: +49 (0) 897876-333

E-mail address : mcm@klueber.com  
Material Compliance Management

National contact : Klüber Lubrication Australia Pty. Ltd.  
1st Floor, 3 Brand Drive  
P.O. Box 4  
Thomastown Victoria 3074 (Melbourne)  
Australia  
+61-3-9464-7577  
Fax: +61-3-9464-7588  
kluber.mel@au.klueber.com

Emergency telephone number : (03) 9464 7577 (9am-5pm AEST, Mon-Fri)  
0011 49 89 7876 700 (24hrs)

**2. HAZARDS IDENTIFICATION**

**R-phrase(s)**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-phrase(s)**

Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature : Mineral oil.  
ester oil

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**Hazardous components**

Chemical Name	CAS-No.	Concentration[%]
triphenyl phosphate	115-86-6	< 10

**4. FIRST AID MEASURES**

- If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.  
Keep patient warm and at rest.  
If unconscious place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.  
In case of contact, immediately flush skin with plenty of water.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.  
If eye irritation persists, consult a specialist.
- If swallowed : Move the victim to fresh air.  
If unconscious place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
Do NOT induce vomiting.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.

**Notes to physician**

- Symptoms : No information available.
- Risks : None known.
- Treatment : No information available.

**5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing : High volume water jet

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- media  
Specific hazards during firefighting : Fire may cause evolution of:  
Carbon oxides
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.  
In the case of respirable dust and/or fumes, use self-contained breathing apparatus.  
Exposure to decomposition products may be a hazard to health.
- Further information : Standard procedure for chemical fires.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Evacuate personnel to safe areas.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**7. HANDLING AND STORAGE**

**Handling**

- Advice on safe handling : Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Wash hands and face before breaks and immediately after handling the product.  
Do not ingest.  
Do not repack.  
Do not re-use empty containers.  
These safety instructions also apply to empty packaging which may still contain product residues.  
Keep container closed when not in use.  
Avoid inhalation of vapour or mist.

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**Storage**

Requirements for storage areas and containers : Store in original container.  
Keep container closed when not in use.  
Keep in a dry, cool and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store in accordance with the particular national regulations.  
Keep in properly labelled containers.

Materials to avoid : No materials to be especially mentioned.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
triphenyl phosphate	115-86-6	TWA	3 mg/m3	2012-05-04	AU OEL

**Engineering measures**

Maintain air concentrations below occupational exposure standards.

**Personal protective equipment**

Respiratory protection : Not required; except in case of aerosol formation.  
Filter type A-P

Hand protection : For prolonged or repeated contact use protective gloves.  
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.  
The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.  
In case of contact through splashing:

: Nitrile rubber  
Protective index Class 1

Eye protection : Safety glasses with side-shields conforming to EN166

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to

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the specific work-place.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Physical state	: liquid
Colour	: colourless
Odour	: characteristic

**Safety data**

Flash point	: 257 °C Method: ASTM D 92
Ignition temperature	: Remarks: No data available
Lower explosion limit	: Note: No data available
Upper explosion limit	: Note: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: Note: No data available
Auto-ignition temperature	: Note: No data available
pH	: Note: No data available
Melting point/range	: Note: No data available
Boiling point/boiling range	: Note: No data available
Sublimation point	: Note: No data available
Vapour pressure	: < 0,001 hPa at 20 °C
Density	: 0,87 g/cm <sup>3</sup> at 20 °C
Bulk density	: Note: No data available
Water solubility	: Note: insoluble
Partition coefficient: n- octanol/water	: Note: No data available
Solubility in other solvents	: Note: No data available
Viscosity, dynamic	: Note: No data available

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Viscosity, kinematic : 150 mm<sup>2</sup>/s  
at 40 °C

Relative vapour density : Note: No data available

Evaporation rate : Note: No data available

**10. STABILITY AND REACTIVITY**

Conditions to avoid : Remarks: No conditions to be specially mentioned.

Materials to avoid : Remarks: No materials to be especially mentioned.

Hazardous decomposition products : Note: No decomposition if stored and applied as directed.

Hazardous reactions : No dangerous reaction known under conditions of normal use.

**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : Remarks: This information is not available.

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity  
115-86-6 : LD50: > 10.000 mg/kg  
Species: Rabbit  
Method: OECD Test Guideline 402

Skin irritation : Remarks: This information is not available.

Eye irritation : Remarks: This information is not available.

Sensitisation : Remarks: This information is not available.

Repeated dose toxicity : This information is not available.

Aspiration toxicity : This information is not available.

Further information : Information given is based on data on the components and the toxicology of similar products.

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**12. Ecological information**

**Ecotoxicity effects**

- Toxicity to fish :  
Remarks:  
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- Toxicity to daphnia and other aquatic invertebrates : Remarks:  
No data available
- Toxicity to algae : Remarks:  
No data available
- M-Factor triphenyl phosphate : 1
- Toxicity to bacteria : Remarks:  
No data available
- Toxicity to fish (Chronic toxicity) triphenyl phosphate : NOEC: <= 0,0014 mg/l  
Exposure time: 90 d  
Species: Oncorhynchus mykiss (rainbow trout)

**Elimination information (persistence and degradability)**

- Bioaccumulation : Remarks:  
This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).
- Mobility : Remarks:  
No data available
- Distribution among environmental compartments : Remarks:  
No data available
- Biodegradability : Remarks:  
No data available
- Physico-chemical removability : Remarks:  
No data available

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**Further information on ecology**

Acute aquatic toxicity  
triphenyl phosphate : Very toxic to aquatic life.

Chronic aquatic toxicity  
triphenyl phosphate : Very toxic to aquatic life with long lasting effects.

triphenyl phosphate :

triphenyl phosphate :

triphenyl phosphate :

Additional ecological  
information : Harmful to aquatic life with long lasting effects.

**13. DISPOSAL CONSIDERATIONS**

Product : The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty containers can be landfilled, when in accordance with the local regulations.

**14. TRANSPORT INFORMATION**

**ADR**

Not dangerous goods

**IATA**

Not dangerous goods

**IMDG**

Not dangerous goods

**15. REGULATORY INFORMATION**

R-phrase(s) : R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic



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S-phrases(s)	: S61	environment. Avoid release to the environment. Refer to special instructions/ Safety data sheets.
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**16. OTHER INFORMATION**

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This safety datasheet applies only to products originally packaged and labelled by KLÜBER LUBRICATION. The information contained therein is protected by copyright and must not be reproduced or amended without the express written approval of KLÜBER LUBRICATION. This document may be passed on only to the extent required by law. Any dissemination of our safety datasheets (e.g. as a document for download from the Internet) beyond this legally required extent is not permitted without express written consent. KLÜBER LUBRICATION provides its customers with amended safety datasheets as prescribed by law. The customer is responsible for passing on safety datasheets and any amendments contained therein to its own customers, employees and other users of the product. KLÜBER LUBRICATION provides no guarantee that safety datasheets received by users from third parties are up-to-date. All information and instructions in this safety datasheets were compiled to the best of our knowledge and are based on the information available to us. The data provided are intended to describe the product in relation to the required safety measures; they are neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and do not justify any contractual legal relationships.

End of Safety Data Sheet