Safety Data Sheet according to 1907/2006/EC, Article 31

Revision: 17.12.2008

1 Identification of substance:

· Product details:

· Trade name: RENOLIN 504 VDL 100

· Application of the substance / the preparation: Hydraulic fluid

· Manufacturer/Supplier:

FUCHS EUROPE SCHMIERSTOFFE GMBH EXPORT DIVISION

Friesenheimer Str. 15

D-68169 Mannheim

Tel: ++49 (0)621/3701-0 (Switch Board)

Fax: ++49 (0)621/3701-570

· Informing department:

Product safety department Tel: ++49 (0)621/3701-333

E-Mail: Produktsicherheit@fuchs-europe.de

Emergency information:

Tel: ++49 (0)621/3701-333 or ++49 (0)621/3701-0 (Switch Board)

2 Hazards identification

· Hazard designation:

By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept.

- Information pertaining to particular dangers for man and environment This product is water polluting; see item 12.
 R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- · Classification system

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

The classification results from the Conventional Method of the Directive 1999/45/EC concerning specific data of compounds.

- 3 Composition/information on ingredients
- · Chemical characterization
- · Description:

Mixture containing severely refined base oils and additives.

Dangerous components: Aryldialkylphosphite Xi, N; R 38-43-50/53 R-phrases

0.1-1 %

• Additional information

For the wording of the listed risk phrases refer to section 16

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Revision: 17.12.2008 Trade name: RENOLIN 504 VDL 100 4 First aid measures · General information Change clothes and shoes contaminated or soaked by the product. Never put rags contaminated by the product into cloth-pockets. · After inhalation Seek medical treatment in case of complaints. · After skin contact Instantly wash with water and soap and rinse thoroughly. · After eye contact Rinse opened eye for several minutes under running water. · After swallowing Seek medical treatment. _____ 5 Fire fighting measures · Suitable extinguishing agents CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam. Use fire fighting measures that suit the environment. · For safety reasons unsuitable extinguishing agents Water with a full water jet. · Protective equipment: In case of fire fighting: wear self containing breathing apparatus 6 Accidental release measures · Person-related safety precautions: Particular danger of slipping on leaked/ spilled product. • Environmental protection measures: Do not allow to enter drainage system, surface or ground water. Prevent from spreading (e.g. by binding or oil barriers). Do not allow to enter the ground/ soil. Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of the material collected according to regulations. · Additional information: No dangerous materials are released. 7 Handling and storage · Handling · Information for safe handling:

- Information for safe handling:
 Prevent formation of aerosols.
 Do not eat, drink or smoke when working with the product.
 Take usual precautions when handling mineral oil products or chemical products.
- Information about protection against explosions and fires: Do not heat up to temperatures close to the flash point.

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- · Storage
- · Requirements to be met by storerooms and containers: No special requirements.
- · Information about storage in one common storage facility: Store away from foodstuffs.
- · Further information about storage conditions: Local regulations concerning handling and storage of waterpolluting products have to be followed.

8 Exposure controls and personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Components with critical values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the compilation were used as basis.
- · Personal protective equipment
- General protective and hygienic measures The usual precautionary measures should be adhered to in handling the chemicals and the mineral oil products. Wash hands during breaks and at the end of the work. Avoid close or long term contact with the skin. Use skin protection cream for preventive skin protection. Do not carry cleaning cloths impregnated with the product in trouser pockets.
- Breathing equipment: Not required.
 Protection of hands: Protective gloves and protective skin cream.
- · Material of gloves
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- · Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- · For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Neoprene gloves

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Trade name: RENOLIN 504 VDL 100 +----(Contd. of page 3) · Not suitable are gloves made of the following materials: Natural rubber, NR · Eye protection: Safety glasses recommended during refilling. · Body protection: Protective work clothing. 9 Physical and chemical properties: General Information · Form: Fluid · Colour: Yellow · Smell: Characteristic Value/Range Unit Method · Change in condition Melting point/Melting range:Boiling point/Boiling range: Not determined not applicable or not determined 226 ° C ISO 2592 · Flash point: · Decomposition temperature: Not determined Self-inflammability: Product is not selfigniting. · Danger of explosion: Product is not explosive. at 15 ° C · Density 0.89 g/cm3 DIN 51 757 · Solubility in / Miscibility with Not miscible or difficult to mix · Water: · Viscosity or Consistency-Class: · kinematic: at 40 ° C $100 \text{ mm}^2/\text{s}$ DIN 51 562 10 Stability and reactivity · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. · Dangerous reactions No dangerous reactions known · Dangerous products of decomposition: No dangerous decomposition products known 11 Toxicological information · Acute toxicity: Primary irritant effect: · on the skin: No irritant effect known. $\boldsymbol{\cdot}$ on the eye: No irritant effect known.

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· Sensitization: No sensitizing effect known.

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· Additional toxicological information: When used and handled according to specifications, the product does not have any harmful effects according to our actual informations.

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12 Ecological information:

- · Behaviour in environmental systems:
- · Mobility and bioaccumulation potential: No data available
- · Ecotoxical effects:
- · Remark: Harmful to fish
- \cdot Behaviour in sewage processing plants: The product swims on the water surface.
- · General notes:

German Water Endangering Class 1 (Self-assessment): slightly hazardous for water.

Do not allow to reach ground water, water bodies or sewage system. Harmful to aquatic organisms

13 Disposal considerations

- · Product:
- Recommendation

Smaller quantities have to be disposed in line with local legislation. When storing used mineral oil products, ensure that the categories for waste oil and mixing instructions are observed.

Delivery of waste oil only to offically authorized collectors.

- · European waste catalogue
 - 13 01 10: mineral based non-chlorinated hydraulic oils
- · Uncleaned packagings:
- Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Small one-way packagings have to be disposed according to the local regulations. EWC 15 01 99.

14 Transport information

· Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)

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- ADR/RID-GGVS/E Class:
- · Maritime transport IMDG/GGVSea:
- · IMDG/GGVSea Class:

· Air transport ICAO-TI and IATA-DGR:

· ICAO/IATA Class:

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· Transport/Additional information: No dangerous good acc. to dangerous goods/ transport directions. ______

15 Regulatory information

· Designation according to EU guidelines: The product has been classified and labelled in accordance with EC Directives until 2004/73/EC (29. ATP). Observe the normal safety regulations when handling chemicals or mineral oil products.

· Risk phrases:

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· Safety phrases:

- Avoid release to the environment. Refer to special instructions/safety data sheets.
- · Special designation of certain preparations: Contains Aryldialkylphosphite. May produce an allergic reaction.
- · National regulations
- · German Water Hazard Class: Water Engangering Class 1 (Self-assessment): slightly hazardous for

16 Other information:

All ingredients are listed in the European Inventories. These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. This data sheet is a safety data sheet according to 91/155/EU. For products which are not subject to classification according to EU lists this data sheet is made on a voluntary base.

- · Relevant R-phrases for the hazardous components in item 3
 - Irritating to skin.
 - May cause sensitisation by skin contact.
 - 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- · Department issuing data specification sheet: FUCHS EUROPE SCHMIERSTOFFE GMBH Export Division Product Safety Departement

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· Contact:

Product Safety Departement:

Tel: ++49(0)621/3701-333 Mrs. Manuwald

· Validity:

With this latest edition of this MSDS all former editions are not valid any longer.

Changed items are marked with "*".

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