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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : OKS 277

Chemical nature : ester oil PTFE Thickening agent

Manufacturer or supplier's details

| Company name of supplier | : | OKS Spezialschmierstoffe GmbH Ganghoferstr. 47 D-82216 Maisach-Gernlinden Tel.: +49 8142 3051 500 Fax.: +49 8142 3051 599 info@oks-germany.com |
|--|-----|---|
| E-mail address of person responsible for the SDS | : | mcm@oks-germany.com Material Compliance Management |
| National contact | : | |
| Emergency telephone number | : | +86 532 8388 9090 (NRCC, only for hazardous chemicals) +86 21 69225521 |
| Recommended use of the che | emi | ical and restrictions on use |
| Decommonded use | | Lubricopt |

| Recommended use | : | Lubricant |
|---------------------|---|-----------------------------------|
| Restrictions on use | : | Restricted to professional users. |

2. HAZARDS IDENTIFICATION

Emergency Overview

| : paste : white : fruity | | |
|--------------------------------|--|--|
| ance or mixture. | | |

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.



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Physical and chemical hazards

Not classified based on available information.

Health hazards

Not classified based on available information.

Environmental hazards

Not classified based on available information.

Other hazards which do not result in classification None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

: Mixture Substance / Mixture

Components

No hazardous ingredients

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 breathing is irregular or stopped, administer artificial respira- tion. |
|---|---|--|
| In case of skin contact | : | Remove contaminated clothing. If irritation develops, get med- ical attention. Wash off with soap and water. |
| 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. Do not induce vomiting without medical advice. |
| Most important symptoms and effects, both acute and delayed | : | No information available. None known. |
| Notes to physician | : | No information available. |



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5. FIREFIGHTING MEASURES

| Suitable extinguishing media | : | Use water spray, alcohol-resistant foam, dry chemical or car- bon dioxide. |
|---|---|--|
| Unsuitable extinguishing media | : | High volume water jet |
| Hazardous combustion prod- ucts | : | Carbon oxides Halogenated compounds |
| Specific extinguishing meth- ods | : | Standard procedure for chemical fires. |
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health. |

6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protec- : tive equipment and emer- gency procedures | Evacuate personnel to safe areas. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Do not breathe vapours, aerosols. Refer to protective measures listed in sections 7 and 8. |
|---|---|
| Environmental precautions : | Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained. |
| Methods and materials for : containment and cleaning up | Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal. |

7. HANDLING AND STORAGE

| Handling | | |
|-------------------------|---|---|
| Advice on safe handling | : | For personal protection see section 8. Smoking, eating and drinking should be prohibited in the ap- plication area. Wash hands and face before breaks and immediately after handling the product. |



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| Avoidance of contact | : | No materials to be especially mentioned. |
|-----------------------------|---|--|
| Storage | | |
| Conditions for safe storage | : | 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. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Components with workplace control parameters | | | | | |
|---|-----|---|--|--|--|
| Contains no substances with occupational exposure limit values. | | | | | |
| Engineering measures | : | none | | | |
| Personal protective equipm | ent | | | | |
| Respiratory protection | : | Not required; except in case of aerosol formation. | | | |
| Filter type | : | Filter type A-P | | | |
| Eye/face protection | : | Safety glasses with side-shields | | | |
| Hand protection Material Break through time Protective index | : | Nitrile rubber > 10 min Class 1 | | | |
| Remarks | : | For prolonged or repeated contact use protective gloves. 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. | | | |
| 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 concen- tration and amount of dangerous substances, and to the spe- cific work-place. | | | |
| Hygiene measures | : | Wash face, hands and any exposed skin thoroughly after handling. | | | |



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9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | : | paste |
|---|---|--|
| Colour | : | white |
| Odour | : | fruity |
| Odour Threshold | : | No data available |
| рН | : | Not applicable substance/mixture is non-soluble (in water) |
| Melting point/range | : | No data available |
| Boiling point/boiling range | : | No data available |
| Flash point | : | Not applicable |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | Combustible Solids |
| Self-ignition | : | not auto-flammable |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapour pressure | : | < 0.001 hPa (20 °C) |
| Relative vapour density | : | No data available |
| Relative density | : | 1.2 (20 °C) Reference substance: Water The value is calculated |
| Density | : | 1.20 g/cm3 (20 °C) |



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| Bulk density | | No data available |
|--|---|-------------------------|
| Solubility(ies) Water solubility | : | insoluble |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n- octanol/water | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | Not applicable |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | No data available |
| Sublimation point | : | No data available |
| Metal corrosion rate | : | Not corrosive to metals |

10. STABILITY AND REACTIVITY

| Reactivity | : | No hazards to be specially mentioned. |
|---|---|---|
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reac- tions | : | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | : | No conditions to be specially mentioned. |
| Incompatible materials | : | No materials to be especially mentioned. |
| Hazardous decomposition products | : | No decomposition if stored and applied as directed. |



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11. TOXICOLOGICAL INFORMATION

| Acute toxicity | | |
|------------------------------|-------|---|
| Product: | | |
| Acute oral toxicity | : | Remarks: This information is not available. |
| Acute inhalation toxicity | : | Remarks: This information is not available. |
| Acute dermal toxicity | : | Remarks: This information is not available. |
| Skin corrosion/irritation | | |
| Product: | | |
| Remarks | : | This information is not available. |
| | | |
| Serious eye damage/eye irr | itati | ion |
| Product: | | |
| Remarks | : | This information is not available. |
| Respiratory or skin sensitis | satio | on |
| Product: | | |
| Remarks | : | This information is not available. |
| | | |
| Germ cell mutagenicity | | |
| Product: | | |
| Genotoxicity in vitro | : | Remarks: No data available |
| Genotoxicity in vivo | : | Remarks: No data available |
| Carcinogenicity | | |
| Product: | | |
| Remarks | : | No data available |



12. ECOLOGICAL INFORMATION

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Reproductive toxicity Product: Effects on fertility : Remarks: No data available Effects on foetal develop-: Remarks: No data available ment Repeated dose toxicity **Product:** Remarks : This information is not available. **Aspiration toxicity** Product: This information is not available. **Further information** Product: Remarks : Information given is based on data on the components and

| the toxicology of similar products. | | |
|-------------------------------------|--|--|
| | | |

| Ecotoxicity | | |
|---|---|----------------------------|
| Product: | | |
| Toxicity to fish | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates | : | Remarks: No data available |
| Toxicity to algae/aquatic plants | : | Remarks: No data available |



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| Toxicity to microorganisms : | | Remarks: No data available | | |
|--|----|--|--|--|
| Persistence and degradabilit | ty | | | |
| Product: | | | | |
| Biodegradability | : | Remarks: No data available | | |
| Physico-chemical removabil- ity | : | Remarks: No data available | | |
| Bioaccumulative potential | | | | |
| Product: Bioaccumulation | | Remarks: This mixture contains no substance considered to | | |
| Dioaccumulation | • | be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB). | | |
| Mobility in soil | | | | |
| Product: | | | | |
| Mobility | : | Remarks: No data available | | |
| Distribution among environ- mental compartments | : | Remarks: No data available | | |
| Other adverse effects | | | | |
| Product: Additional ecological infor- mation | : | No information on ecology is available. | | |

13. DISPOSAL CONSIDERATIONS

| Disposal methods | | |
|------------------------|---|--|
| Waste from residues | : | The product should not be allowed to enter drains, water courses or the soil. |
| Contaminated packaging | : | Packaging that is not properly emptied must be disposed of as the unused product. Dispose of waste product or used containers according to local regulations. |



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14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

GB 6944/12268 Not regulated as a dangerous good

Special precautions for user

Not applicable

15. REGULATORY INFORMATION

National regulatory information

| Regulations on Safety Management of Hazardous Chemicals | | | | | | | |
|---|---|----------------|--|--|--|--|--|
| Hazardous Chemicals for Priority Management under SAWS | : | Not applicable | | | | | |
| China Severely Restricted Toxic Chemicals for Import and Export | : | Not applicable | | | | | |
| Catalogue of Hazardous Chemicals | : | Not applicable | | | | | |

The components of this product are reported in the following inventories: IECSC

16. OTHER INFORMATION

Date format

: yyyy/mm/dd



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Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China: IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative: WHMIS - Workplace Hazardous Materials Information System

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