



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name : OKS 2200

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Anticorrosion additive  
Recommended restrictions on use : Restricted to professional users.

#### 1.3 Details of the supplier of the safety data sheet

OKS Spezialschmierstoffe GmbH  
Ganghoferstr. 47  
D-82216 Maisach-Gernlinden  
Tel.: +49 8142 3051 500  
Fax.: +49 8142 3051 599

E-mail address : mcm@oks-germany.com  
Responsible/issuing person

National contact :

#### 1.4 Emergency telephone number

+49 8142 3051 517

---

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

**Classification (67/548/EEC, 1999/45/EC)**

Not a hazardous substance or mixture.

#### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

**Additional Labelling:**

EUH210 Safety data sheet available on request.

EUH208 Contains: 1,2-benzisothiazol-3(2H)-one May produce an allergic reaction.

#### 2.3 Other hazards

---

### 3. Composition/information on ingredients

#### 3.2 Mixtures



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

Chemical nature : Aqueous emulsion

### Hazardous components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
oleic acid	112-80-1 204-007-1	Xi; R38	Skin Irrit. 2; H315	>= 1 - < 5
2,2',2''-nitrilotriethanol	102-71-6 203-049-8		Eye Irrit. 2; H319	>= 3 - < 10
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	2372-82-9 219-145-8	Xn; R48/22 C; R35 N; R50	Acute Tox. 3; H301 Skin Corr. 1A; H314 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	< 0.25
WEL substance :				
Paraffin waxes and Hydrocarbon waxes	8002-74-2 232-315-6			< 10

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. First aid measures

### 4.1 Description of 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 : Take off all contaminated clothing immediately.  
Wash off immediately with soap and plenty of water.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.
- In case of eye contact : If eye irritation persists, consult a specialist.  
Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
- If swallowed : If unconscious place in recovery position and seek medical



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

---

advice.  
Keep respiratory tract clear.  
Never give anything by mouth to an unconscious person.  
Get medical attention if symptoms occur.

: Move the victim to fresh air.

: Rinse mouth with water.

### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : None known.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

---

## 5. Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : none

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Fire may cause evolution of:  
Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)

### 5.3 Advice for firefighters

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.

---

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Do not breathe vapours or spray mist.  
Refer to protective measures listed in sections 7 and 8.



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

### 6.2 Environmental precautions

- Environmental precautions : Try to prevent the material from entering drains or water courses.  
Prevent further leakage or spillage if safe to do so.  
Local authorities should be advised if significant spillages cannot be contained.

### 6.3 Methods and materials for containment and cleaning up

- 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).

### 6.4 Reference to other sections

- For personal protection see section 8.

---

## 7. Handling and storage

### 7.1 Precautions for safe handling

- Advice on safe handling : Do not breathe vapours or spray mist.  
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 get in eyes or mouth or on skin.  
Do not get on skin or clothing.  
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.

### 7.2 Conditions for safe storage, including any incompatibilities

- 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.  
To maintain product quality, do not store in heat or direct sunlight.  
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.

### 7.3 Specific end use(s)

- : Consult the technical guidelines for the use of this substance/mixture.



**OKS 2200**

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

**8. Exposure controls/personal protection**

**8.1 Control parameters**

Components	CAS-No.	Value type	Control parameters	Update	Basis
Paraffin waxes and Hydrocarbon waxes	8002-74-2	TWA	2 mg/m <sup>3</sup>	2011-12-01	GB EH40
Further information:	48: The word 'fume' is often used to include gases and vapours. This is not the case for exposure limits where 'fume' should normally be applied to solid particles generated by chemical reactions or condensed from the gaseous state, usually after volatilisation from melted substances. The generation of fume is often accompanied by a chemical reaction such as oxidation or thermal breakdown.				
Paraffin waxes and Hydrocarbon waxes	8002-74-2	STEL	6 mg/m <sup>3</sup>	2011-12-01	GB EH40
Further information:	48: The word 'fume' is often used to include gases and vapours. This is not the case for exposure limits where 'fume' should normally be applied to solid particles generated by chemical reactions or condensed from the gaseous state, usually after volatilisation from melted substances. The generation of fume is often accompanied by a chemical reaction such as oxidation or thermal breakdown.				

**8.2 Exposure controls**

**Engineering measures**

Maintain air concentrations below occupational exposure standards.  
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.  
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).  
none

**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:  
  
: butyl-rubber  
Protective index Class 1



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

- 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 the specific work-place.

### Environmental exposure controls

- General advice : Try to prevent the material from entering drains or water courses.  
Prevent further leakage or spillage if safe to do so.  
Local authorities should be advised if significant spillages cannot be contained.

---

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance : liquid
- Colour : yellow
- Odour : characteristic
- Odour Threshold : No data available
- pH : No data available
- Melting point/range : No data available
- Boiling point/boiling range : 100 °C
- Flash point : 191 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Lower explosion limit : No data available
- Upper explosion limit : No data available
- Vapour pressure : < 0.01 hPa, 20 °C
- Relative vapour density : No data available
- Density : 0.92 g/cm<sup>3</sup>, 20 °C
- Water solubility : No data available
- Solubility in other solvents : No data available
- Partition coefficient: n-octanol/water : No data available
- Auto-ignition temperature : No data available



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

Ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: No data available

### 9.2 Other information

Sublimation point	: No data available
Bulk density	: No data available

---

## 10. Stability and reactivity

### 10.1 Reactivity

No hazards to be specially mentioned.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

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

### 10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

### 10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

### 10.6 Hazardous decomposition products

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

---

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Product

Acute oral toxicity	: This information is not available.
Acute inhalation toxicity	: This information is not available.
Acute dermal toxicity	: This information is not available.
Skin corrosion/irritation	: This information is not available.
Serious eye damage/eye irritation	: This information is not available.
Respiratory or skin sensitisation	: This information is not available.
Germ cell mutagenicity	

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - GB



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

Genotoxicity in vitro	: No data available
Genotoxicity in vivo	: No data available
Carcinogenicity	: No data available
Reproductive toxicity	: No data available
Teratogenicity	: No data 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.

### **Components:**

#### **oleic acid :**

Acute oral toxicity	: LD50: 74,000 mg/kg, Rat
Acute dermal toxicity	: Redness, Local irritation
Skin corrosion/irritation	: Result: Irritating to skin. : Irritating to skin.
Further information	: Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

#### **2,2',2''-nitrioltriethanol :**

Acute oral toxicity	: LD50 Oral: > 2,000 mg/kg, Rat
Acute dermal toxicity	: LD50 Dermal: > 2,000 mg/kg, Rabbit
Serious eye damage/eye irritation	: Irritating to eyes.
Further information	: Information given is based on data on the components and the toxicology of similar products.

#### **N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine :**

Acute oral toxicity	: LD50 Oral: 261 mg/kg, Rat, OECD Test Guideline 401 : Toxic if swallowed. : Pain, Stomach/intestinal disorders
Acute inhalation toxicity	: Risk of delayed pulmonary oedema., Effects of breathing high concentrations of vapour may include:, Irritating to respiratory system.
Acute dermal toxicity	: Blistering, Redness
Skin corrosion/irritation	: Result: Causes severe burns. : Causes skin burns.
Serious eye damage/eye irritation	: Result: No eye irritation : Acute eye irritation/corrosion, Causes eye burns.
STOT - repeated exposure	: Assessment: May cause damage to organs through prolonged or repeated exposure.





## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

Further information : Ingestion causes burns of the upper digestive and respiratory tracts.

## 12. Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : No data available  
Toxicity to daphnia and other aquatic invertebrates : No data available  
Toxicity to algae : No data available  
Toxicity to bacteria : No data available

#### Components:

##### **oleic acid :**

Toxicity to fish : LC50: 205 mg/l, 96 h, Pimephales promelas (fathead minnow)

##### **2,2',2"-nitrilotriethanol :**

Toxicity to fish : LC50: > 100 mg/l, 96 h, Lepomis macrochirus (Bluegill sunfish)

Toxicity to daphnia and other aquatic invertebrates : EC50: > 100 mg/l, 24 h, Daphnia magna (Water flea)

Toxicity to algae : EC50: > 100 mg/l, 72 h, Desmodesmus subspicatus (green algae)

##### **N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine :**

Toxicity to fish : LC50: 0.45 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout)

:  
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other aquatic invertebrates : EC50: 0.073 mg/l, 48 h, Daphnia magna (Water flea)

Toxicity to algae : EbC50: 0.012 mg/l, 72 h, Desmodesmus subspicatus (green algae), OECD Test Guideline 201

M-Factor : 10

#### **Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

### 12.2 Persistence and degradability



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

### Product:

Biodegradability : No data available  
Physico-chemical  
removability : No data available

### Components:

#### **2,2',2''-nitrioltriethanol :**

Biodegradability : > 70 %, Result: Biodegradable, Exposure time: 14 d, OECD  
Test Guideline 302B  
: < 60 %, Result: Not readily biodegradable., Exposure time: 30  
d, OECD Test Guideline 301D

### 12.3 Bioaccumulative potential

#### Product:

Bioaccumulation : 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).

### 12.4 Mobility in soil

#### Product:

Mobility : No data available  
Distribution among  
environmental compartments : No data available

### 12.5 Results of PBT and vPvB assessment

### 12.6 Other adverse effects

#### Product:

Additional ecological  
information : No information on ecology is available.

#### Components:

#### **N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine :**

Additional ecological  
information : Very toxic to aquatic organisms, may cause long-term adverse  
effects in the aquatic environment., Very toxic to aquatic life.

---

## 13. Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water  
courses or the soil.  
: Waste codes should be assigned by the user based on the  
application for which the product was used.  
Contaminated packaging : Empty containers can be landfilled, when in accordance with  
the local regulations.



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

---

### 14. Transport information

#### 14.1 UN number

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

#### 14.2 Proper shipping name

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

#### 14.3 Transport hazard class

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

#### 14.4 Packing group

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

#### 14.5 Environmental hazards

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

#### 14.6 Special precautions for user

No special precautions required.

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

Remarks : Not applicable for product as supplied.

---

### 15. Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture



## OKS 2200

Version 1.2

Revision Date 23.06.2016

Print Date 23.06.2016

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
Major Accident Hazard Legislation	:	96/82/EC Update: 2003 Directive 96/82/EC does not apply

### 15.2 Chemical Safety Assessment

This information is not available.

## 16. Other information

### Full text of R-phrases referred to under sections 2 and 3

R35	Causes severe burns.
R38	Irritating to skin.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50	Very toxic to aquatic organisms.

### Full text of H-Statements referred to under sections 2 and 3.

H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

### Further information

This safety datasheet applies only to products originally packaged and labelled by OKS Spezialechmierstoffe. The information contained therein is protected by copyright and must not be reproduced or amended without the express written approval of OKS Spezialechmierstoffe. 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. OKS Spezialechmierstoffe 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. OKS Spezialechmierstoffe 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.