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

OKS 250

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

1.1 Product identifier

Product name : OKS 250

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

Use of the Substance/Mixture : Lubricant
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)

Skin irritation, Category 2
Serious eye damage, Category 1
Acute aquatic toxicity, Category 1
Chronic aquatic toxicity, Category 2

H315: Causes skin irritation.
H318: Causes serious eye damage.
H400: Very toxic to aquatic life.
H411: Toxic to aquatic life with long lasting effects.

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

Irritant

R38: Irritating to skin.
R41: Risk of serious damage to eyes.

Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :
Signal word: Danger

Hazard statements:
- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:
- Prevention:
  - P264: Wash skin thoroughly after handling.
  - P273: Avoid release to the environment.
  - P280: Wear protective gloves/ eye protection/ face protection.
- Response:
  - P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
  - P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
  - P332 + P313: If skin irritation occurs: Get medical advice/ attention.

Hazardous components which must be listed on the label:
- 1305-62-0 calcium dihydroxide

2.3 Other hazards

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature: Synthetic hydrocarbon oil solid lubricant polyurea

Hazardous components

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>calcium dihydroxide</td>
<td>1305-62-0 215-137-3</td>
<td>Xi; R37/38</td>
<td>Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335</td>
<td>&gt;= 10 - &lt; 20</td>
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<tr>
<td>Amines, N-tallow alkyltrimethylene-, oleates</td>
<td>61791-53-5 263-186-4 / 01-2119974117-33-XXXX</td>
<td>Xi; R36/38 Xn; R48/22 N; R50/53</td>
<td>Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410</td>
<td>&gt;= 3 - &lt; 5</td>
</tr>
</tbody>
</table>
4. First aid measures

4.1 Description of first aid measures

If inhaled:
Call a physician or poison control centre immediately.
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:
Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
Get medical attention immediately.

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 without medical advice.
Never give anything by mouth to an unconscious person.

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 water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting:
- Fire may cause evolution of:
  - Carbon oxides
  - Metal oxides
  - Nitrogen oxides (NOx)
  - Oxides of phosphorus

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.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:
- 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).
- Avoid breathing dust.
- Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions:

Environmental precautions:
- Do not allow contact with soil, surface or ground water.
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up:

Methods for cleaning up:
- Clean up promptly by sweeping or vacuum.
- Keep in suitable, closed containers for disposal.

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:

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.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.

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.
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.

8. Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>13463-67-7</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>2011-12-01</td>
<td>GB EH40</td>
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</table>

Further information:

15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m\(^{-3}\) 8-hour TWA of inhalable dust or 4 mg.m\(^{-3}\) 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed ‘inhalable’ and ‘respirable’. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the
respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>TWA Limit</th>
<th>Date</th>
<th>Directive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>4 mg/m³</td>
<td>2011-12-01</td>
<td>GB EH40</td>
</tr>
<tr>
<td>Calcium Dihydroxide</td>
<td>1305-62-0</td>
<td>5 mg/m³</td>
<td>1991-07-05</td>
<td>91/322/EEC</td>
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<tr>
<td>Calcium Dihydroxide</td>
<td>1305-62-0</td>
<td>5 mg/m³</td>
<td>2005-04-06</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>

Further information:

15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed ‘inhalable’ and ‘respirable’. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

DNEL

calcium dihydroxide : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term local effects
Value: 1 mg/m³

Amines, N-tallow alkyltrimethylene, oleates : End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 0.04 mg/kg

PNEC

calcium dihydroxide : Fresh water
OKS 250

8.2 Exposure controls

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 : Wear 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
Eye protection: Tightly fitting safety goggles

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: Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties
Form: paste
Colour: beige
Odour: characteristic
Odour Threshold: No data available
pH: No data available
Melting point/range: No data available
Boiling point/boiling range: No data available
Flash point: > 180 °C
Evaporation rate: No data available
Flammability (solid, gas): Combustible Solids
Lower explosion limit: No data available
Upper explosion limit: No data available
Vapour pressure: 0.001 hPa, 20 °C
Relative vapour density: No data available
Density: 1.25 g/cm³, 20 °C
Water solubility: immiscible
Solubility in other solvents: No data available
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Ignition temperature: No data available
Thermal decomposition: No data available
9.2 Other information

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

10. Stability and reactivity

10.1 Reactivity
None reasonably foreseeable.

10.2 Chemical stability
Stable under normal conditions.

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 inhalation toxicity : This information is not available.
Acute dermal toxicity : Redness, Local irritation
Skin corrosion/irritation : Irritating to skin.
Serious eye damage/eye irritation : Risk of serious damage to eyes.
Respiratory or skin sensitisation : This information is not available.
Germ cell mutagenicity
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
- Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

#### Components:
- **calcium dihydroxide**
  
  **Acute oral toxicity**
  - LD50: > 2,000 mg/kg, Rat (female), OECD Test Guideline 425
  
  **Acute dermal toxicity**
  - LD50: > 2,500 mg/kg, Rabbit, OECD Test Guideline 402

  **Skin corrosion/irritation**
  - Rabbit, Result: Irritating to skin., Classification: Irritating to skin., OECD Test Guideline 404

  **Serious eye damage/eye irritation**
  - Rabbit, Result: Risk of serious damage to eyes., Classification: Risk of serious damage to eyes., OECD Test Guideline 405

  **Respiratory or skin sensitisation**
  - Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation.

  **Germ cell mutagenicity**

  **Genotoxicity in vitro**
  - Ames test, Result: negative, OECD Test Guideline 471
  - Chromosome aberration test in vitro, Result: negative, OECD Test Guideline 473

  **STOT - single exposure**
  - Assessment: May cause respiratory irritation.

#### Amines, N-tallow alkytrimethylenedi-, oleates:

  **Acute oral toxicity**
  - LD50: > 5,000 mg/kg, Rat

  **Skin corrosion/irritation**
  - Rabbit, Result: Irritating to skin., Classification: Irritating to skin.

  **Serious eye damage/eye irritation**
  - Rabbit, Result: Irritating to eyes., Classification: Irritating to eyes., OECD Test Guideline 405

  **Respiratory or skin sensitisation**
  - Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation.

  **Germ cell mutagenicity**

  **Assessment**
  - Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

  **STOT - single exposure**
  - Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

  **STOT - repeated exposure**
  - Exposure routes: Ingestion
  - Assessment: May cause damage to organs through prolonged or repeated exposure.
12. Ecological information

12.1 Toxicity

**Product:**
- **Toxicity to fish:** Very toxic to aquatic organisms.
- **Toxicity to daphnia and other aquatic invertebrates:** No data available
- **Toxicity to algae:** No data available
- **Toxicity to bacteria:** No data available

**Components:**
- **calcium dihydroxide**:
  - **Toxicity to fish**: LC50: 160 mg/l, 96 h, Gambusia affinis (Mosquito fish)
  - **Toxicity to daphnia and other aquatic invertebrates**: EC50: 49.1 mg/l, 48 h, Daphnia magna (Water flea), static test, OECD Test Guideline 202, GLP: yes
  - **Toxicity to algae**: EC50: 184.57 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae), static test, OECD Test Guideline 201, GLP: yes

- **Amines, N-tallow alkyltrimethyleneetri-, oleates**:
  - **Toxicity to fish**: LC50: > 0.1 - 1 mg/l, 96 h, Danio rerio (zebra fish), OECD Test Guideline 203
  - **Toxicity to daphnia and other aquatic invertebrates**: EC50: > 0.1 - 1 mg/l, 48 h, Daphnia magna (Water flea)
  - **Toxicity to algae**: EC50: > 0.01 - 0.1 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae), OECD Test Guideline 201

- **M-Factor**: 10
  - **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**: EC10: > 0.1 - 1 mg/l, 21 d, Daphnia magna (Water flea), Reproduction Test, OECD Test Guideline 211

**Ecotoxicology Assessment**
- **Acute aquatic toxicity**: Very toxic to aquatic life.
- **Chronic aquatic toxicity**: Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

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

**Components:**
calcium dihydroxide:
Biodegradability: The methods for determining the biological degradability are not applicable to inorganic substances.

Amines, N-tallow alkyltrimethylenedi-, oleates:
Biodegradability: Result: rapidly biodegradable

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).

**Components:**
Amines, N-tallow alkyltrimethylenedi-, oleates:
Bioaccumulation: Bioaccumulation is unlikely.

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

**Product:**
Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Components:**
calcium dihydroxide:
Assessment: Not applicable
Amines, N-tallow alkyltrimethylenedi-, oleates:
Assessment: Non-classified PBT substance, Non-classified vPvB substance

12.6 Other adverse effects

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

13. Disposal considerations

13.1 Waste treatment methods

Product: The product should not be allowed to enter drains, water
contaminated packaging:

- Waste codes should be assigned by the user based on the application for which the product was used.
- Empty containers can be landfilled, when in accordance with the local regulations.

14. Transport information

14.1 UN number

<table>
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<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
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</thead>
<tbody>
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14.2 Proper shipping name

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<td></td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (fatty amine derivative)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (fatty amine derivative)</td>
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</table>

14.3 Transport hazard class

<table>
<thead>
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</thead>
<tbody>
<tr>
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</table>

14.4 Packing group

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<td>Classification Code: M7</td>
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<td></td>
<td>Hazard Identification Number: 90</td>
<td>Tunnel restriction code: (E)</td>
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<td></td>
<td>EmS Number: F-A, S-F</td>
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<table>
<thead>
<tr>
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<th>IMDG</th>
<th>IATA</th>
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<tbody>
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<td></td>
<td>Packaging instruction (cargo aircraft): 956</td>
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<tr>
<td></td>
<td>Packaging group: III</td>
<td>Labels: 9</td>
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</table>

14.5 Environmental hazards

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmentally hazardous: yes</td>
<td>Marine pollutant: yes</td>
<td>Environmentally hazardous: yes</td>
</tr>
</tbody>
</table>
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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Major Accident Hazard Legislation :

96/82/EC Update: Dangerous for the environment
9a Quantity 1: 100 t
Quantity 2: 200 t

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
R36/38 Irritating to eyes and skin.
R37/38 Irritating to respiratory system and skin.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50 Very toxic to aquatic organisms.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-statements referred to under sections 2 and 3.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

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