



## OKS 270

Version 1.2

Revision Date 31.07.2014

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

#### 1.1 Product identifier

Product name : OKS 270

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

Use of the Substance/Mixture : Lubricant

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

OKS Spezialschmierstoffe GmbH  
Ganghoferstr. 47  
D-82216 Maisach-Gernlinden  
Tel.: 0049 (0) 8142-3051-500  
Fax.: 0049 (0) 8142-3051-599

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

National contact :

#### 1.4 Emergency telephone number

0049 (0) 8142-3051-517

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

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

|                                      |  |
|--------------------------------------|--|
| Skin irritation, Category 2          | H315: Causes skin irritation.                            |
| Eye irritation, Category 2           | H319: Causes serious eye irritation.                     |
| Chronic aquatic toxicity, Category 3 | H412: Harmful to aquatic life with long lasting effects. |

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

|                               |   |
|-------------------------------|---|
| Dangerous for the environment | R52/53: Harmful 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 : Warning

Hazard statements : H315 Causes skin irritation.

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H319  
H412

Causes serious eye irritation.  
Harmful to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**

P264  
P273  
P280

Wash hands thoroughly after handling.  
Avoid release to the environment.  
Wear protective gloves/ eye protection/ face protection.

**Response:**

P302 + P352  
P332 + P313  
  
P337 + P313

IF ON SKIN: Wash with plenty of water.  
If skin irritation occurs: Get medical advice/ attention.  
If eye irritation persists: Get medical advice/ attention.

### 2.3 Other hazards

No hazards resulting from the material as supplied.

## 3. Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

| Chemical Name   | CAS-No.<br>EC-No.<br>Index-No.<br>Registration<br>number | Classification<br>(67/548/EEC) | Classification<br>(REGULATION<br>(EC) No<br>1272/2008) | Concentration<br>[%] |
|---|--|--------------------------------|--|----------------------|
| baseoil - unspecified                                       | 64742-54-7<br>265-157-1<br>649-467-00-8                  | Xn; R65                        | Asp. Tox. 1; H304                                      | >= 10 - < 20         |
| Amines, N-tallow<br>alkyltrimethylenedi-,<br>oleates        | 61791-53-5<br>263-186-4                                  | C; R34<br>N; R50               | Skin Corr. 1B;<br>H314<br>Aquatic Acute 1;<br>H400     | >= 2.5 - < 5         |
| zinc oxide  | 1314-13-2<br>215-222-5<br>030-013-00-7                   | N; R50/53                      | Aquatic Acute 1;<br>H400<br>Aquatic Chronic 1;<br>H410 | >= 1 - < 2.5         |
| zinc bis[O,O-bis(2-<br>ethylhexyl)]<br>bis(dithiophosphate) | 4259-15-8<br>224-235-5                                   | Xi; R41<br>N; R51/53           | Eye Dam. 1; H318<br>Aquatic Chronic 2;<br>H411         | >= 0.25 - < 1        |

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.



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### 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.<br>Keep patient warm and at rest.<br>If unconscious place in recovery position and seek medical advice.<br>Keep respiratory tract clear.<br>If breathing is irregular or stopped, administer artificial respiration. |
| In case of skin contact | : Take off all contaminated clothing immediately.<br>Wash off immediately with soap and plenty of water.<br>Get medical attention immediately if irritation develops and persists.<br>Wash clothing before reuse.<br>Thoroughly clean shoes before reuse.   |
| In case of eye contact  | : If eye irritation persists, consult a specialist.<br>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 advice.<br>Keep respiratory tract clear.<br>Never give anything by mouth to an unconscious person.<br>Get medical attention if symptoms occur.   |
|                         | : Move the victim to fresh air.   |

#### 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:<br>Carbon oxides |
|--------------------------------------|---|



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Metal oxides  
Nitrogen oxides (NO<sub>x</sub>)  
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.

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## 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.

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## 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.

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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.  
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.

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## 8. Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 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 : In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection : For prolonged or repeated contact use protective gloves.  
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 choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.



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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.

- Eye protection : Tightly fitting safety goggles  
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 : Do not allow contact with soil, surface or ground water.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Form : paste
- Colour : beige
- Odour : hydrocarbon-like
- Odour Threshold : No data available
- pH : No data available
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : 213 °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 : < 1,100 hPa, 20 °C
- Relative vapour density : No data available
- Density : 1.15 g/cm<sup>3</sup>, 20 °C
- Water solubility : immiscible
- Solubility in other solvents : No data available
- Partition coefficient: n-octanol/water : No data available



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|                           |                     |
|---------------------------|---------------------|
| Auto-ignition temperature | : No data available |
| Ignition temperature      | : No data available |
| Viscosity, dynamic        | : No data available |
| Viscosity, kinematic      | : No data available |
| Oxidizing properties      | : No data available |

### 9.2 Other information

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

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## 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.

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## 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             | : Redness, Local irritation          |
| Skin corrosion/irritation         | : Irritating to skin.                |
| Serious eye damage/eye irritation | : Irritating to eyes.                |
| Respiratory or skin sensitisation | : This information is not available. |
| Germ cell mutagenicity            |                                      |

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|                        |   |
|------------------------|---|
| 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:**

#### **baseoil - unspecified :**

|                           |  |
|---------------------------|--|
| Acute oral toxicity       | : LD50 Oral: > 5,000 mg/kg, rat  |
| Acute inhalation toxicity | : LC50: 4 h, rat, dust/mist  |
| Acute dermal toxicity     | : LD50 Dermal: > 5,000 mg/kg, rabbit   |
| Aspiration toxicity       | : May be fatal if swallowed and enters airways.  |
|                           | : May be harmful if swallowed and enters airways.  |
| Further information       | : Information given is based on data on the components and the toxicology of similar products. |

#### **zinc oxide :**

|                                   |   |
|-----------------------------------|---|
| Acute oral toxicity               | : LD50: > 5,000 mg/kg, rat, OECD Test Guideline 401   |
| Acute inhalation toxicity         | : LC50: > 5.7 mg/l, 4 h, rat, dust/mist, OECD Test Guideline 403, The substance or mixture has no acute inhalation toxicity                                     |
| Acute dermal toxicity             | : LD50: > 2,000 mg/kg, rat, OECD Test Guideline 402, GLP: yes   |
| Skin corrosion/irritation         | : rabbit, Result: No skin irritation, Classification: No skin irritation, OECD Test Guideline 404   |
| Serious eye damage/eye irritation | : rabbit, Result: No eye irritation, Classification: No eye irritation, OECD Test Guideline 405, GLP: yes   |
| Respiratory or skin sensitisation | : Maximisation Test (GPMT), guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 406 |

#### **zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) :**

|                           |   |
|---------------------------|---|
| Acute oral toxicity       | : LD50: 3,100 mg/kg, rat, OECD Test Guideline 401   |
| Acute dermal toxicity     | : LD50: > 5,000 mg/kg, rabbit, OECD Test Guideline 402  |
| Skin corrosion/irritation | : rabbit, Result: No skin irritation, Classification: No skin irritation, OECD Test Guideline 404, GLP: yes |
| Serious eye damage/eye    | : rabbit, Result: Risk of serious damage to eyes., Classification:  |



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|                                   |   |
|-----------------------------------|---|
| irritation                        | Risk of serious damage to eyes., OECD Test Guideline 405, GLP: yes  |
|                                   | : Severe eye irritation, May irritate eyes., Risk of serious damage to eyes.  |
| Respiratory or skin sensitisation | : Maximisation Test (GPMT), guinea pig, Result: Does not cause skin sensitisation., OECD Test Guideline 406, GLP: yes |
| Further information               | : Information given is based on data on the components and the toxicology of similar products.                        |

## 12. Ecological information

### 12.1 Toxicity

#### Product:

|   |   |   |
|---|---|---|
| Toxicity to fish                                    | : | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| Toxicity to daphnia and other aquatic invertebrates | : | No data available   |
| Toxicity to algae                                   | : | No data available   |
| Toxicity to bacteria                                | : | No data available   |

#### Components:

##### **zinc oxide :**

|   |   |   |
|---|---|---|
| Toxicity to fish                                    | : | LC50: 1.1 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), OECD Test Guideline 203                          |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50: 2.2 mg/l, 48 h, Daphnia magna (Water flea), Immobilization, OECD Test Guideline 202                   |
| Toxicity to algae                                   | : | ErC50: 0.17 mg/l, 72 h, Selenastrum capricornutum (green algae), Growth inhibition, OECD Test Guideline 201 |

M-Factor : 1

#### **Ecotoxicology Assessment**

|                          |   |   |
|--------------------------|---|---|
| Acute aquatic toxicity   | : | Very toxic to aquatic life.                           |
| Chronic aquatic toxicity | : | Very toxic to aquatic life with long lasting effects. |

##### **zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) :**

|                               |   |  |
|-------------------------------|---|--|
| Toxicity to fish              | : | LC50: 4.4 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), semi-static test, OECD Test Guideline 203 |
|                               | : | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.          |
| Toxicity to daphnia and other | : | EC50: 75 mg/l, 48 h, Daphnia magna (Water flea),   |



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|                       |  |
|-----------------------|--|
| aquatic invertebrates | Immobilization, OECD Test Guideline 202  |
| Toxicity to algae     | : ErC50: 240 mg/l, 72 h, Desmodesmus subspicatus (green algae), Growth inhibition, OECD Test Guideline 201, GLP: yes |
| Toxicity to bacteria  | : EC50: 380 mg/l, 16 h, Pseudomonas putida, GLP: yes   |

### 12.2 Persistence and degradability

#### Product:

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

#### Components:

##### **zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) :**

|                  |  |
|------------------|--|
| Biodegradability | : < 5 %, Result: not rapidly biodegradable, OECD 301 D |
|------------------|--|

### 12.3 Bioaccumulative potential

#### Product:

|                 |  |
|-----------------|--|
| Bioaccumulation | : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)., This mixture contains no substance considered to be very persistent nor 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

#### 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:

##### **zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) :**

|            |   |
|------------|---|
| Assessment | : Non-classified PBT substance, Non-classified vPvB substance |
|------------|---|

### 12.6 Other adverse effects

#### Product:

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

#### Components:

##### **zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) :**

|                                   |  |
|-----------------------------------|--|
| Additional ecological information | : Toxic to aquatic life with long lasting effects. |
|-----------------------------------|--|



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### 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.                  |

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### 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**

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Not dangerous goods

### 14.6 Special precautions for user

No data available

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

Not available

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## 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). : 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: not applicable

### 15.2 Chemical Safety Assessment

This information is not available.

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## 16. Other information

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

|        |  |
|--------|--|
| R34    | Causes burns.  |
| R41    | Risk of serious damage to eyes.  |
| R50    | Very toxic to aquatic organisms.   |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.      |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.    |
| R65    | Harmful: may cause lung damage if swallowed.   |

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

|      |   |
|------|---|
| H304 | May be fatal if swallowed and enters airways.         |
| H314 | Causes severe skin burns and eye damage.              |
| H315 | Causes skin irritation.                               |
| H318 | Causes serious eye damage.                            |
| H319 | Causes serious eye irritation.                        |
| 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.      |
| H412 | Harmful to aquatic life with long lasting effects.    |

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