

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878 - DE



## OKS 340

Version	Revision Date:	Date of last issue: 18.02.2025	Print Date:
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name : OKS 340

### 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

Company : OKS Spezialschmierstoffe GmbH  
Ganghoferstr. 47  
82216 Maisach  
Germany  
Tel.: +49 8142 3051-500  
info@oks-germany.com

E-mail address of person responsible for the SDS : mcm@oks-germany.com

National contact : Klüber Lubrication Deutschland GmbH & Co. KG  
Geisenhausenerstraße 7  
81379 München  
Germany  
Tel.: +49 (0) 89 7876 0  
customer.service.de@klueber.com

### 1.4 Emergency telephone number

Emergency telephone number : +49 8142 3051 517

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

Eye irritation, Category 2 H319: Causes serious eye irritation.

### 2.2 Label elements

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


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Hazard pictograms : 

Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**  
P264 Wash skin thoroughly after handling.  
P280 Wear eye protection/ face protection.

**Response:**  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.

### Additional Labelling

EUH208 Contains Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate; Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.

### 2.3 Other hazards

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Synthetic hydrocarbon oil

### Components

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Chemical name	CAS-No. EC-No.  Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	4259-15-8 224-235-5  01-2119493635-27-XXXX	Eye Dam. 1; H318 Aquatic Chronic 2; H411	> 50 % Eye Dam.1, H318	>= 1 - < 2,5
Sulfonic acids, petroleum, calcium salts	61789-86-4 263-093-9  01-2119488992-18-XXXX	Skin Sens. 1B; H317	>= 10 % Skin Sens.1B,	>= 1 - < 10
Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate	947-946-9  01-2120772600-59-XXXX	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Chronic 4; H413		>= 0,25 - < 1

For explanation of abbreviations see section 16.

## SECTION 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.

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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.  
Seek medical advice.

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.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.

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

Symptoms : No symptoms known or expected.

Risks : Causes serious eye irritation.

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

Treatment : Treat symptomatically.

## SECTION 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

Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NOx)  
Sulphur oxides  
Oxides of phosphorus  
Metal oxides

### 5.3 Advice for firefighters

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.

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Further information : Standard procedure for chemical fires.

## SECTION 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.

### 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 material 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.

## SECTION 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.

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Keep container closed when not in use.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

### 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.

Storage class (TRGS 510) : 10, Combustible liquids

### 7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Sulfonic acids, petroleum, calcium salts	61789-86-4	MAK (measured as the alveolate fraction)	5 mg/m <sup>3</sup>	DE DFG MAK (2023-07-01)
		Peak-limit: excursion factor (category): 4; II		
		Further information: Either there are no data for an assessment of damage to the embryo or foetus, including developmental neurotoxicity, or the currently available data are not sufficient for classification in one of the groups A - C		
		AGW (Alveolate fraction)	5 mg/m <sup>3</sup>	DE TRGS 900 (2015-11-06)
		Peak-limit: excursion factor (category): 4;(II)		

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
Benzene, mono-C10-13-alkyl derivs., distn. residues	Workers	Inhalation	Long-term systemic effects	2,2 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	3,15 mg/kg bw/day
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	Workers	Inhalation	Long-term systemic effects	6,6 mg/m <sup>3</sup>

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	Workers	Skin contact	Long-term systemic effects	9,6 mg/m <sup>3</sup>
Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate	Workers	Inhalation	Long-term systemic effects	4,93 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	1,4 mg/kg bw/day
Sulfonic acids, petroleum, calcium salts	Workers	Inhalation	Long-term systemic effects	11,75 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	3,33 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term local effects	1,03 mg/cm <sup>2</sup>

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Benzene, mono-C10-13-alkyl derivs., distn. residues	Fresh water	0,001 mg/l
	Intermittent use/release	0,001 mg/l
	Marine water	0 mg/l
	Microbiological Activity in Sewage Treatment Systems	2 mg/l
	Fresh water sediment	16,5 mg/kg
	Marine sediment	1,65 mg/kg
	Soil	3,7 mg/kg
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	Fresh water	0,004 mg/l
	Marine water	0,0046 mg/l
	Sewage treatment plant	3,8 mg/l
	Fresh water sediment	0,322 mg/l
	Marine sediment	0,032 mg/l
	Soil	0,062 mg/l
	Oral	16,667
Sulfonic acids, petroleum, calcium salts	Fresh water	1 mg/l
	Marine water	1 mg/l
	Intermittent use/release	10 mg/l
	Microbiological Activity in Sewage Treatment Systems	1000 mg/l
	Fresh water sediment	226000000
	Marine sediment	226000000
	Soil	271000000

## 8.2 Exposure controls

### Engineering measures

none

### Personal protective equipment

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- Eye/face protection : Safety glasses with side-shields
- Hand protection  
Material : butyl-rubber  
Break through time : > 10 min  
Protective index : Class 1
- Remarks : Wear 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.  
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Respiratory protection : Not required; except in case of aerosol formation.
- Filter type : Filter type A-P
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Environmental exposure controls**
- Air : No special environmental precautions required.  
Soil : The product should not be allowed to enter drains, water courses or the soil.  
Water : The product should not be allowed to enter drains, water courses or the soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Physical state : liquid
- Colour : green
- Odour : characteristic
- Odour Threshold : No data available

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Melting point/ range : No data available

Boiling point/boiling range : 221 °C (1.013 hPa)

Flammability : Flammability (solid, gas):  
Not applicable

Upper explosion limit / Upper flammability limit : 7 %(V)

Lower explosion limit / Lower flammability limit : 0,6 %(V)

Flash point : 214 °C  
Method: ISO 2592

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : Not applicable  
substance/mixture is non-polar/aprotic

Viscosity  
Viscosity, dynamic : No data available

Viscosity, kinematic : 440 mm<sup>2</sup>/s (40 °C)

Solubility(ies)  
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

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Vapour pressure : 32,5 hPa (20 °C)

Relative density : 0,877 (20 °C)  
Reference substance: Water  
The value is calculated

Density : 0,88 g/cm<sup>3</sup>  
(20 °C)

Bulk density : No data available

Relative vapour density : No data available

### 9.2 Other information

Explosives : Not explosive

Oxidizing properties : No data available

Self-ignition : not auto-flammable

Metal corrosion rate : Not corrosive to metals

Evaporation rate : No data available

Sublimation point : No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No hazards to be specially mentioned.

### 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.

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### 10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### Product:

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Symptoms: Redness, Local irritation

#### Components:

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

Acute oral toxicity : LD50 (Rat, male): 3.100 mg/kg  
Method: OECD Test Guideline 401  
GLP: no

Acute dermal toxicity : LD50 (Rabbit, male): > 5.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: no

##### **Sulfonic acids, petroleum, calcium salts:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 1,9 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute  
inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

**Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen  
dithiophosphate:**

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Acute dermal toxicity : Symptoms: Redness, Local irritation

### **Skin corrosion/irritation**

Based on available data, the classification criteria are not met.

#### **Product:**

Remarks : This information is not available.

#### **Components:**

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

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : yes

##### **Sulfonic acids, petroleum, calcium salts:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation

##### **Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Species : reconstructed human epidermis (RhE)  
Exposure time : 15 min  
Assessment : Irritating to skin.  
Method : OECD Test Guideline 439  
Result : Irritating to skin.  
GLP : yes

### **Serious eye damage/eye irritation**

Causes serious eye irritation.

#### **Product:**

Remarks : This information is not available.

#### **Components:**

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

Species : Rabbit  
Assessment : Risk of serious damage to eyes.  
Method : OECD Test Guideline 405  
Result : Risk of serious damage to eyes.  
GLP : yes

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### Sulfonic acids, petroleum, calcium salts:

Species	: Rabbit
Assessment	: No eye irritation
Method	: OECD Test Guideline 405
Result	: No eye irritation

### Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:

Species	: Bovine cornea
Exposure time	: 10 min
Assessment	: No eye irritation
Method	: OECD Test Guideline 437
Result	: No eye irritation
GLP	: yes

### Respiratory or skin sensitisation

#### Skin sensitisation

Based on available data, the classification criteria are not met.

#### Respiratory sensitisation

Based on available data, the classification criteria are not met.

#### Product:

Remarks : This information is not available.

### Components:

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

Test Type	: Maximisation Test
Species	: Guinea pig
Assessment	: Did not cause sensitisation on laboratory animals.
Method	: OECD Test Guideline 406
Result	: Did not cause sensitisation on laboratory animals.
GLP	: yes

### Sulfonic acids, petroleum, calcium salts:

Test Type	: Buehler Test
Species	: Guinea pig
Assessment	: The product is a skin sensitiser, sub-category 1B.
Result	: The product is a skin sensitiser, sub-category 1B.

### Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:

Test Type	: Local lymph node assay (LLNA)
Species	: Mouse
Assessment	: The product is a skin sensitiser, sub-category 1B.
Method	: OECD Test Guideline 429

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Result : The product is a skin sensitiser, sub-category 1B.  
GLP : yes

### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

#### Components:

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

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Mouse (male and female)  
Application Route: Intraperitoneal  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

##### **Sulfonic acids, petroleum, calcium salts:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative

Germ cell mutagenicity-  
Assessment : Tests on bacterial or mammalian cell cultures did not show  
mutagenic effects.

##### **Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation

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Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

Test Type: in vitro micronucleus test  
Test system: Human lymphocytes  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 487  
Result: negative  
GLP: yes

Test Type: In vitro mammalian cell gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 490  
Result: negative  
GLP: yes

Germ cell mutagenicity-  
Assessment : Weight of evidence does not support classification as a germ  
cell mutagen.

### **Carcinogenicity**

Based on available data, the classification criteria are not met.

#### **Product:**

Remarks : No data available

#### **Components:**

##### **Sulfonic acids, petroleum, calcium salts:**

Carcinogenicity -  
Assessment : Not classifiable as a human carcinogen.

### **Reproductive toxicity**

Based on available data, the classification criteria are not met.

#### **Product:**

Effects on fertility : Remarks: No data available

Effects on foetal  
development : Remarks: No data available

#### **Components:**

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

Reproductive toxicity -  
Assessment : - Fertility -  
Weight of evidence does not support classification for  
reproductive toxicity

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### **Sulfonic acids, petroleum, calcium salts:**

Effects on fertility : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Oral  
General Toxicity - Parent: NOAEL: > 500  
General Toxicity F1: NOAEL: > 500  
Method: OECD Test Guideline 415

Reproductive toxicity - Assessment : - Fertility -  
No toxicity to reproduction  
- Teratogenicity -  
No toxicity to reproduction

### **Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Reproductive toxicity - Assessment : - Fertility -  
Animal testing did not show any effects on fertility.

### **STOT - single exposure**

Based on available data, the classification criteria are not met.

#### **Product:**

Remarks : No data available

#### **Components:**

### **Sulfonic acids, petroleum, calcium salts:**

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

### **STOT - repeated exposure**

Based on available data, the classification criteria are not met.

#### **Product:**

Remarks : No data available

#### **Components:**

### **Sulfonic acids, petroleum, calcium salts:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### **Repeated dose toxicity**

#### **Product:**

Remarks : This information is not available.

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### Components:

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

Species	: Rat, male and female
NOAEL	: 125 mg/kg
Application Route	: oral (gavage)
Exposure time	: 28 d
Number of exposures	: daily
Method	: OECD Test Guideline 407
GLP	: yes

#### **Sulfonic acids, petroleum, calcium salts:**

Species	: Rat
NOAEL	: 500 mg/kg
Application Route	: Oral
Method	: OECD Test Guideline 407

#### **Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Species	: Rat, male and female
NOAEL	: 100 mg/kg
Application Route	: oral (gavage)
Exposure time	: 28 d
Number of exposures	: daily
Method	: OECD Test Guideline 422
GLP	: yes
Remarks	: Not classified due to data which are conclusive although insufficient for classification.

### **Aspiration toxicity**

Based on available data, the classification criteria are not met.

### **Product:**

This information is not available.

### **Components:**

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

No aspiration toxicity classification

## 11.2 Information on other hazards

### **Endocrine disrupting properties**

Based on available data, the classification criteria are not met.

### **Product:**

Assessment : The substance/mixture does not contain components

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considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### Further information

#### Product:

Remarks : Information given is based on data on the components and the toxicology of similar products.

#### Components:

##### **Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Remarks : Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### 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

Toxicity to microorganisms : Remarks: No data available

#### Components:

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

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4,4 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: semi-static test  
Analytical monitoring: no  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 75 mg/l  
End point: Immobilization  
Exposure time: 48 h

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Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 240 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to microorganisms : EC50 (Pseudomonas putida): 380 mg/l  
Exposure time: 16 h  
Test Type: static test  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 0,8 mg/l  
End point: reproduction rate  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 211  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

### Sulfonic acids, petroleum, calcium salts:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): > 10.000 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes  
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.000 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 1.500 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Remarks: No toxicity at the limit of solubility

Toxicity to microorganisms : EC50 (activated sludge): > 10.000 mg/l

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Exposure time: 3 h  
Test Type: static test  
Method: OECD Test Guideline 209  
GLP: yes

### Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects., No toxicity at the limit of solubility

### Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203  
GLP: yes

Remarks: May cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to microorganisms : EC50 (activated sludge): > 1.000 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Analytical monitoring: no  
Method: OECD Test Guideline 209  
GLP: yes

## 12.2 Persistence and degradability

### Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

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### Components:

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

Biodegradability : Test Type: aerobic  
Result: Not rapidly biodegradable  
Biodegradation: < 5 %  
Exposure time: 27 d  
Method: OECD Test Guideline 301D  
GLP: no

#### **Sulfonic acids, petroleum, calcium salts:**

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 8 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
GLP: yes

#### **Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 11 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

## 12.3 Bioaccumulative potential

### Product:

Bioaccumulation : Remarks: No data available

### Components:

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

Partition coefficient: n- : log Pow: 3,59 (22 °C)  
octanol/water pH: 5  
Method: OECD Test Guideline 107  
GLP: yes

#### **Sulfonic acids, petroleum, calcium salts:**

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water,  
accumulation in organisms is possible.

Partition coefficient: n- : log Pow: 10,88 (20 °C)  
octanol/water Method: OECD Test Guideline 117  
GLP: yes

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### **Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Partition coefficient: n- : log Pow: > 4  
octanol/water

#### 12.4 Mobility in soil

##### **Product:**

Mobility : Remarks: No data available

Distribution among : Remarks: No data available  
environmental compartments

#### 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 Endocrine disrupting properties

##### **Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### 12.7 Other adverse effects

##### **Product:**

Additional ecological : No information on ecology is available.  
information

##### **Components:**

##### **Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate:**

Additional ecological : May cause long lasting harmful effects to aquatic life.  
information

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not dispose of with domestic refuse.  
Dispose of as hazardous waste in compliance with local and national regulations.

Waste codes should be assigned by the user based on the application for which the product was used.

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.

The following Waste Codes are only suggestions:

Waste Code : unused product  
13 02 06\*, synthetic engine, gear and lubricating oils  
  
uncleaned packagings  
15 01 10\*, packaging containing residues of or contaminated by hazardous substances

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADN : Not regulated as a dangerous good  
ADR : Not regulated as a dangerous good  
RID : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

### 14.2 UN proper shipping name

ADN : Not regulated as a dangerous good  
ADR : Not regulated as a dangerous good  
RID : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

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### 14.3 Transport hazard class(es)

**ADN** : Not regulated as a dangerous good  
**ADR** : Not regulated as a dangerous good  
**RID** : Not regulated as a dangerous good  
**IMDG** : Not regulated as a dangerous good  
**IATA** : Not regulated as a dangerous good

### 14.4 Packing group

**ADN** : Not regulated as a dangerous good  
**ADR** : Not regulated as a dangerous good  
**RID** : Not regulated as a dangerous good  
**IMDG** : Not regulated as a dangerous good  
**IATA (Cargo)** : Not regulated as a dangerous good  
**IATA (Passenger)** : Not regulated as a dangerous good

### 14.5 Environmental hazards

**ADN** : Not regulated as a dangerous good  
**ADR** : Not regulated as a dangerous good  
**RID** : Not regulated as a dangerous good  
**IMDG** : Not regulated as a dangerous good

### 14.6 Special precautions for user

Not applicable

### 14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:  
Number on list 3

Number on list 75  
If you intend to use this product as tattoo ink, please contact your vendor.

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REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). (EU SVHC) : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Regulation (EU) No 2024/590 on substances that deplete the ozone layer (EC 2024/590) : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) (EU POP) : Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals (EU PIC) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) (EU. REACH-Annex XIV) : Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable

Water hazard class (Germany) : WGK 1 slightly hazardous to water  
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : 5.2.1: Total dust:  
others: 0,72 %  
5.2.5: Organic Substances:  
Class 1: 2,26 %

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Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control)  
Volatile organic compounds (VOC) content: 0,3 %

### 15.2 Chemical safety assessment

This information is not available.

## SECTION 16: Other information

### Full text of H-Statements

H315 : Causes skin irritation.  
H317 : May cause an allergic skin reaction.  
H318 : Causes serious eye damage.  
H411 : Toxic to aquatic life with long lasting effects.  
H413 : May cause long lasting harmful effects to aquatic life.

### Full text of other abbreviations

Aquatic Chronic : Long-term (chronic) aquatic hazard  
Eye Dam. : Serious eye damage  
Skin Irrit. : Skin irritation  
Skin Sens. : Skin sensitisation  
DE DFG MAK : Germany. MAK BAT Annex IIa  
DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.  
DE DFG MAK / MAK : MAK value  
DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; GHS - Globally Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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

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Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Eye Irrit. 2

H319

#### Classification procedure:

Calculation method

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.

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