## OKS 235

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|---|---|---|---|
| 1.8 | 20.12.2022 | Date of first issue: 14.11.2014 | 20.12.2022 |

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : OKS 235

**Manufacturer or supplier's details**

Company name of supplier : OKS Spezialschmierstoffe GmbH
Ganghoferstr. 47
D-82216 Maisach-Gernlinden
Tel.: +49 8142 3051 500
Fax.: +49 8142 3051 599
info@oks-germany.com

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

Emergency telephone number : +7 495 628 1687
+49 8142 3051 517

**Recommended use of the chemical and restrictions on use**

Recommended use : Lubricant

Restrictions on use : Restricted to professional users.

### 2. HAZARDS IDENTIFICATION

**GHS Classification (According to GOST 32423, GOST 32424 and GOST 32425)**

Not a hazardous substance or mixture.

**GHS-Labelling (According to GOST 31340)**

Not a hazardous substance or mixture.

**Other hazards which do not result in classification**

None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical nature : Mineral oil.
Metal powder

**Components**

| Chemical name | Concentration (% w/w) | Occupational Exposure Limits | CAS-No. | EC-No. |
|---|---|---|---|---|

| | | MAC value mg/m3 / TSEL value | Hazard Class | | |
|---|---|---|---|---|---|
| Kaolin, calcined | >= 1 - < 10 | No data available | | 92704-41-1 | 296-473-8 |
| aluminium powder (stabilised) | >= 1 - < 10 | No data available | | 7429-90-5 | 231-072-3 |
| 2,5-bis(tert-nonyldithio)-1,3,4-thiadiazole | >= 1 - < 2,5 | No data available | | 89347-09-1 | 289-493-3 |

## 4. 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 breathing is irregular or stopped, administer artificial respiration. |
| In case of skin contact | : | Remove contaminated clothing. If irritation develops, get medical attention.<br>Wash off with soap and water. |
| In case of eye contact | : | Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.<br>If eye irritation persists, consult a specialist. |
| If swallowed | : | Move the victim to fresh air.<br>Do not induce vomiting without medical advice. |
| Most important symptoms and effects, both acute and delayed | : | No information available.<br>None known. |
| Notes to physician | : | No information available. |

## 5. FIREFIGHTING MEASURES

**Flammable properties**

| | | |
|---|---|---|
| Flash point | : | Not applicable |
| Ignition temperature | : | No data available |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |

| | | |
|---|---|---|
| Flammability (solid, gas) | : | Combustible Solids |
| Suitable extinguishing media | : | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | : | High volume water jet |
| Hazardous combustion products | : | Carbon oxides<br>Nitrogen oxides (NOx)<br>Sulphur oxides<br>Metal oxides |
| Further information | : | Standard procedure for chemical fires. |
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus.<br>Use personal protective equipment.<br>Exposure to decomposition products may be a hazard to health. |

## 6. ACCIDENTAL RELEASE MEASURES

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

## 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Advice on safe handling | : | For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Wash hands and face before breaks and immediately after handling the product. |
| Conditions for safe storage | : | Store in original container.<br>Keep container closed when not in use.<br>Keep in a dry, cool and well-ventilated place. |

Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store in accordance with the particular national regulations.
Keep in properly labelled containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : none

**Personal protective equipment**

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type A-P

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.

Eye protection : Safety glasses with side-shields

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.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Colour : silver

| | | |
|---|---|---|
| Odour | : | fatty odour, slight |
| Odour Threshold | : | No data available |
| pH | : | Not applicable<br>substance/mixture is non-soluble (in water) |
| Drop point | : | 110 °C |
| Boiling point/boiling range | : | No data available |
| Flash point | : | Not applicable |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | Combustible Solids |
| Self-ignition | : | not auto-flammable |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapour pressure | : | < 0,001 hPa (20 °C) |
| Relative vapour density | : | No data available |
| Relative density | : | 0,92 (20 °C)<br>Reference substance: Water<br>The value is calculated |
| Density | : | 0,92 g/cm3 (20 °C) |
| Bulk density | : | No data available |
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |

| | | |
|---|---|---|
| Viscosity | | |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | Not applicable |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | No data available |
| Sublimation point | : | No data available |
| Metal corrosion rate | : | Not corrosive to metals |

## 10. STABILITY AND REACTIVITY

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

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Remarks: This information is not available. |
| Acute inhalation toxicity | : | Remarks: This information is not available. |
| Acute dermal toxicity | : | Acute toxicity estimate: > 5.000 mg/kg<br>Method: Calculation method |

**Components:**

**Kaolin, calcined:**

Acute inhalation toxicity : Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**aluminium powder (stabilised):**

Acute inhalation toxicity : LC50 (Rat): > 5,09 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

**2,5-bis(tert-nonyldithio)-1,3,4-thiadiazole:**

Acute oral toxicity : LD50 (Rat): > 10.000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

**Skin corrosion/irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**Kaolin, calcined:**

Result : Repeated exposure may cause skin dryness or cracking.

**aluminium powder (stabilised):**

Species : Rabbit
Assessment : No skin irritation
Result : No skin irritation

**Serious eye damage/eye irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**Kaolin, calcined:**

Result : Irritating to eyes.

**aluminium powder (stabilised):**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No eye irritation |
| Assessment | : | No eye irritation |

**Respiratory or skin sensitisation**

**Product:**

| | | |
|---|---|---|
| Remarks | : | This information is not available. |

**Components:**

**aluminium powder (stabilised):**

| | | |
|---|---|---|
| Species | : | Guinea pig |
| Assessment | : | Did not cause sensitisation on laboratory animals. |
| Result | : | Did not cause sensitisation on laboratory animals. |

**Germ cell mutagenicity**

**Product:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Remarks: No data available |
| Genotoxicity in vivo | : | Remarks: No data available |

**Carcinogenicity**

**Product:**

| | | |
|---|---|---|
| Remarks | : | No data available |

**Reproductive toxicity**

**Product:**

| | | |
|---|---|---|
| Effects on fertility | : | Remarks: No data available |
| Effects on foetal development | : | Remarks: No data available |

**STOT - single exposure**

**Components:**

**Kaolin, calcined:**

| | | |
|---|---|---|
| Exposure routes | : | Inhalation |
| Assessment | : | The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation. |

**Repeated dose toxicity**

**Product:**

| | | |
|---|---|---|
| Remarks | : | This information is not available. |

**Aspiration toxicity**

**Product:**

This information is not available.

**Further information**

**Product:**

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

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Product:**

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

**Components:**

**aluminium powder (stabilised):**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,12 mg/l
Exposure time: 96 h
Test Type: static test
Remarks: No toxicity at the limit of solubility

**Ecotoxicology Assessment**

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

**2,5-bis(tert-nonyldithio)-1,3,4-thiadiazole:**

Toxicity to fish : LC50 (Fish): > 10 - 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : (Daphnia magna (Water flea)): > 10 - 100 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50: > 10 - 100 mg/l
Exposure time: 72 h

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

**Components:**

**2,5-bis(tert-nonyldithio)-1,3,4-thiadiazole:**

Biodegradability : Result: Not readily biodegradable.

**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: 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).

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

**Other adverse effects**

**Product:**

Additional ecological information : No information on ecology is available.

**Hygienic standards:**

**(Allowable concentration in air, water, including fishery waters, soil)**

| Components | Air | Water | Soil | Data Source |
|---|---|---|---|---|
| aluminium powder (stabilised) | No data available | Maximum Permissible Concentration: 0,04 Milligrams per cubed decimeter<br>Limiting health hazard indicator: toxic<br>Hazard class: 4<br>Regional Maximum Permissible Concentration: 0,081 Milligrams per cubed decimeter<br>Limiting health hazard indicator: sanitary and toxicological effects<br>Hazard class: 3<br>Maximum Allowable Concentration: 0,2 mg/l (Aluminium)<br>Limiting health hazard indicator: | No data available | List 4<br>List 5 |

| | | | | |
|---|---|---|---|---|
| | | organoleptic; increases the turbidity of the water<br>Hazard class: Class 3 - moderately dangerous | | |

For explanation of abbreviations see section 16.

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of waste product or used containers according to local regulations.

The following Waste Codes are only suggestions:

Waste Code : used product, unused product
12 01 12*, spent waxes and fats

uncleaned packagings
15 01 10*, packaging containing residues of or contaminated by hazardous substances

## 14. TRANSPORT INFORMATION

**ADR**
Not regulated as a dangerous good

**UNRTDG**
Not regulated as a dangerous good

**IATA-DGR**
Not regulated as a dangerous good

**IMDG-Code**
Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable for product as supplied.

**Special precautions for user**
Not applicable

## 15. REGULATORY INFORMATION

### National regulatory information

Federal Law of 21.07.1997 No. 116-FZ (amended on 11.06.2021) "On industrial safety of hazardous production facilities".
Federal Law of 24.06.1998 No. 89-FZ (amended on 02.07.2021) "On production and consumption waste".
Federal Law of 30.03.1999 No. 52-FZ (amended on 02.07.2021) "On the Sanitary and Epidemiological Well-Being of the Population" (amended and supplemented, entered into force on 31.10.2021).
Federal Law of 04.05.1999 No. 96-FZ "On the protection of atmospheric air" (as amended on December 8, 2020).
Federal Law of 27.12.2002 No. 184-FZ (amended on 02.07.2021) "On Technical Regulation" (amended and supplemented, entered into force on 01.09.2021).
Federal Law of 10.01.2002 No. 7-FZ (amended on 02.07.2021) "On environmental protection".
Federal Law of 22.07.2008 No. 123-FZ "Technical Regulations on Fire Safety Requirements"
TECHNICAL REGULATIONS OF THE CUSTOMS UNION TR CU 030/2012 On requirements for lubricants, oils and special fluids (amended on 03.03.2017).

### International Regulations

| | | |
|---|---|---|
| Montreal Protocol | : | Not applicable |
| Rotterdam Convention (Prior Informed Consent) | : | Not applicable |
| Stockholm Convention (Persistent Organic Pollutants) | : | Not applicable |

## 16. OTHER INFORMATION

### List of data sources used in the preparation of the Safety Data Sheet

GOST 30333-2007. Interstate standard. Safety data sheet for chemical products. Primary requirements.
GOST 12.1.004-91 System of labor safety standards (SSBT). Fire safety. General requirements.
GOST 12.1.007-76 Occupational safety standards system. Noxious substances. Classification and general safety requirements
GOST 12.1.044-89 SSBT. Fire and explosion hazard of substances and materials. Nomenclature of indicators and methods for their determination.
GOST 12.4.021 System of labor safety standards (SSBT). Ventilation systems. General requirements.
GOST 12.4.137-2001 Special footwear with leather uppers for protection against oil, oil products, acids, alkalis, non-toxic and explosive dust. Technical conditions.
GOST 12.4.252-2013 System of labor safety standards (SSBT). Means of individual protection of hands. Gloves. General technical requirements. Test methods.
GOST 14192-96. Interstate standard. Cargo marking. Minsk, 1998.
GOST 19433-88 Dangerous goods. Classification and labeling.

GOST 31340-2013. Interstate standard. Precautionary labeling of chemical products. General requirements.
GOST 32419-2013 Classification of the hazard of chemical products. General requirements.
GOST 32421-2013 Classification of chemical products, the hazard of which is due to physical and chemical properties. Test methods for explosive chemical products.
GOST 32423-2013 Hazard classification of mixed chemical products by their effects on the body.
GOST 32424-2013 Classification of the hazard of chemical products by their impact on the environment. Basic provisions.
GOST 32425-2013 Hazard classification of mixed chemical products in terms of environmental impact.
GOST R 53264-2019 Fire fighting equipment. Special protective clothing for firefighters. General technical requirements. Test methods.
GOST R 53265-2019 Fire fighting equipment. Personal protective equipment for the feet of the firefighter. General technical requirements. Test methods.
GOST R 53268-2009 Fire fighting equipment. Fire rescue belts. General technical requirements. Test methods.
GOST R 53269-2019 Fire fighting equipment. Firefighters helmets. General technical requirements. Test methods.
SanPiN 1.2.2353-08 "Carcinogenic factors and basic requirements for the prevention of carcinogenic hazard".
SanPiN 1.2.3685-21 "Hygienic standards and requirements for ensuring the safety and (or) harmlessness to humans of environmental factors" dated 28.01.2021.
SanPiN 2.1.3684-21 "Sanitary and epidemiological requirements for the maintenance of the territories of urban and rural settlements, for water bodies, drinking water and drinking water supply, atmospheric air, soils, living quarters, the operation of industrial, public premises, the organization and implementation of sanitary and anti-epidemic (preventive) measures".
SanPiN 2.2.0.555-96. 2.2. Labor hygiene. Hygienic requirements for working conditions for women. Sanitary rules and regulations.
Carriage of dangerous goods, International maritime dangerous goods (IMDG) code.
Water quality standards for fishery water bodies, including standards for maximum permissible concentrations of harmful substances in the waters of fishery water bodies (approved by order of the Ministry of Agriculture of Russia dated December 13, 2016 No. 552).
Regulations for the carriage of dangerous goods (Appendix 1 and 2) to the Agreement on International Goods Transport by Rail (SMGS), 2009.
Agreement on International Goods Transport by Rail (SMGS).
UN Recommendations on the Transport of Dangerous Goods. Typical rules. Twenty-second revised edition. United Nations, New York and Geneva, 2021.
Montreal Protocol (Ozone Depleting Substances)
Stockholm Convention (Persistent Organic Pollutants)

**Full text of other abbreviations**

| | | |
|---|---|---|
| Acute Tox. | : | Acute toxicity |
| Aquatic Acute | : | Short-term (acute) aquatic hazard |
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard |
| Eye Irrit. | : | Eye irritation |
| Flam. Sol. | : | Flammable solids |
| STOT SE | : | Specific target organ toxicity - single exposure |
| List 4 | : | SanPiN 1.2.3685-21 Table 3.13, Table 3.15, Table 3.16 & Table 3.17 Maximum permissible concentrations (MPC) of chemicals in the water of drinking systems of centralized, including hot, and non-centralized water supply, water of underground and surface water bodies of domestic drinking and cultural and domestic water use, water of swimming |

| | | |
|---|---|---|
| | | pools, water parks |
| List 5 | : | Order of the Russian Federal Fisheries Agency "Standards of maximum permissible concentrations of harmful substances in fishery water bodies" |

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; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; 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 - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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