



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

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

Product information

Product name : OKS 235

Use of the Substance/Mixture : Lubricant

Company : OKS Spezialschmierstoffe GmbH
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2. Hazards identification

GHS Classification

: Skin sensitisation, Category 1

GHS-Labeling

Symbol(s) :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements : **Prevention:**
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

3. Composition/information on ingredients

Chemical nature : Synthetic hydrocarbon oil
Metal powder

Hazardous components

Chemical name	CAS-No.	Concentration[%]
Aluminium powder (desensitized)	7429-90-5	1 - 10
Silicon dioxide	7631-86-9	1 - 10
Titanium dioxide	13463-67-7	1 - 10
White mineral oil (petroleum)	8042-47-5	1 - 10
calcium bis(dinonylnaphthalenesulphonate)	57855-77-3	0,1 - 1
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	70024-69-0	0,1 - 1

4. First aid measures

If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
If eye irritation persists, consult a specialist.

If swallowed : Move the victim to fresh air.
If unconscious, place in recovery position and seek medical advice.



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.

Notes to physician

- Symptoms : Allergic appearance
- Risks : May cause an allergic skin reaction.
- Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

5. Firefighting measures

- Suitable extinguishing media : ABC powder
Carbon dioxide (CO₂)
: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : Water
Foam
: High volume water jet
- Specific hazards during firefighting : Fire may cause evolution of:
Carbon oxides
Metal oxides
Oxides of phosphorus
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Exposure to decomposition products may be a hazard to health.
- Further information : Standard procedure for chemical fires.

6. Accidental release measures

- 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



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

- (dust).
Avoid breathing dust.
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
Local authorities should be advised if significant spillages cannot be contained.
- Methods for cleaning up : Clean up promptly by sweeping or vacuum.
Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling

- Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
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.

Storage

- 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.



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

8. Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Silicon dioxide	7631-86-9	MPC-TWA	1 mg/m ³	2013-09-16	RU OEL
Silicon dioxide	7631-86-9	MPC-STEL	3 mg/m ³	2013-09-16	RU OEL
Silicon dioxide	7631-86-9	MPC-TWA	2 mg/m ³	2013-09-16	RU OEL
Silicon dioxide	7631-86-9	MPC-STEL	6 mg/m ³	2013-09-16	RU OEL
Titanium dioxide	13463-67-7	MPC-TWA	10 mg/m ³	2011-07-12	RU OEL
White mineral oil (petroleum)	8042-47-5	MPC-STEL	5 mg/m ³	2011-07-12	RU OEL

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 : butyl-rubber
Manufacturer, importer, supplier: Class 1
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.

Eye protection : Tightly fitting safety goggles

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



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

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.

9. Physical and chemical properties

Appearance

Form : paste
Colour : grey
Odour : characteristic

Safety data

Flash point : 181 °C
Ignition temperature : Remarks: No data available
Lower explosion limit : Note: No data available
Upper explosion limit : Note: No data available
Flammability (solid, gas) : Combustible Solids
Oxidizing properties : Note: No data available
Auto-ignition temperature : Note: No data available
pH : Note: Not applicable
: Note: Not applicable
Boiling point/boiling range : > 232 °C
Sublimation point : Note: No data available
Vapour pressure : < 0,001 hPa
at 20 °C
Density : 0,98 g/cm³
at 20 °C



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

Bulk density	: Note: No data available
Water solubility	: Note: immiscible
Partition coefficient: n-octanol/water	: Note: No data available
Solubility in other solvents	: Note: No data available
Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: Not applicable
Relative vapour density	: Note: No data available
Evaporation rate	: Note: No data available

10. Stability and reactivity

Conditions to avoid	: No conditions to be specially mentioned.
Materials to avoid	: water
Hazardous decomposition products	: No decomposition if stored and applied as directed.
Thermal decomposition	: Note: No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity	: Remarks: This information is not available.
Acute inhalation toxicity	: Remarks: This information is not available.
Acute dermal toxicity	
Silicon dioxide	: LD50: > 5.000 mg/kg Species: Rabbit
White mineral oil (petroleum)	: LD50: > 5.000 mg/kg Species: Rabbit
calcium bis(dinonylnaphthalenesulphonate)	: LD50: > 20.000 mg/kg Species: Rabbit
Benzenesulfonic acid, mono-	: > 5.000 mg/kg



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

C16-24-alkyl derivs., calcium salts Species: Rabbit
Method: OECD Test Guideline 402

Skin corrosion/irritation

Skin irritation : Remarks: This information is not available.

Serious eye damage/eye irritation

Eye irritation : Remarks: This information is not available.

Respiratory or skin sensitisation

Sensitisation : Remarks: This information is not available.

Germ cell mutagenicity

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Germ cell mutagenicity

Remarks

Silicon dioxide : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

White mineral oil (petroleum) : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Remarks

Silicon dioxide : No evidence of carcinogenicity in animal studies.

White mineral oil (petroleum) : No evidence of carcinogenicity in animal studies.

Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts : Not classifiable as a human carcinogen.

Teratogenicity

Remarks

Teratogenicity

Teratogenicity

Teratogenicity

Silicon dioxide : No effects on or via lactation



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

- No toxicity to reproduction
- White mineral oil (petroleum) : No effects on or via lactation
No toxicity to reproduction
- calcium bis(dinonylnaphthalenesulphonate) : No toxicity to reproduction
- Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts : No toxicity to reproduction
No toxicity to reproduction

Target Organ Systemic Toxicant - Single exposure

- Silicon dioxide : Remarks: The substance or mixture is not classified as specific target organ toxicant, single exposure.
- White mineral oil (petroleum) : Remarks: The substance or mixture is not classified as specific target organ toxicant, single exposure.
- calcium bis(dinonylnaphthalenesulphonate) : Remarks: The substance or mixture is not classified as specific target organ toxicant, single exposure.
- Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts : Remarks: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Target Organ Systemic Toxicant - Repeated exposure

- : This information is not available.

Target Organ Systemic Toxicant - Repeated exposure

- Silicon dioxide : Remarks: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
- White mineral oil (petroleum) : Remarks: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
- calcium bis(dinonylnaphthalenesulphonate) : Remarks: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
- Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts : Remarks: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

- Aspiration toxicity : This information is not available.

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



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

12. Ecological information

Ecotoxicity effects

Toxicity to fish :
Remarks:
No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks:
No data available

Toxicity to algae : Remarks:
No data available

Toxicity to bacteria : Remarks:
No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
White mineral oil (petroleum) : NOEC: ≥ 1.000 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

Elimination information (persistence and degradability)

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 : Remarks:
No data available

Distribution among environmental compartments : Remarks:
No data available

Biodegradability : Remarks:
No data available

Physico-chemical : Remarks:



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

removability No data available

Further information on ecology

Acute aquatic toxicity

Aluminium powder : This product has no known ecotoxicological effects.

(desensitized)

calcium :

bis(dinonylnaphthalenesulph onate)

Benzenesulfonic acid, mono- :

C16-24-alkyl derivs., calcium salts

Chronic aquatic toxicity

Aluminium powder : This product has no known ecotoxicological effects.

(desensitized)

calcium : This product has no known ecotoxicological effects.

bis(dinonylnaphthalenesulph onate)

Benzenesulfonic acid, mono- : This product has no known ecotoxicological effects., No toxicity at the limit of solubility

C16-24-alkyl derivs., calcium salts

Aluminium powder :

(desensitized)

calcium :

bis(dinonylnaphthalenesulph onate)

Benzenesulfonic acid, mono- :

C16-24-alkyl derivs., calcium salts

Aluminium powder :

(desensitized)

calcium :

bis(dinonylnaphthalenesulph onate)

Benzenesulfonic acid, mono- :

C16-24-alkyl derivs., calcium salts

Aluminium powder :

(desensitized)

calcium :

bis(dinonylnaphthalenesulph onate)

Benzenesulfonic acid, mono- :

C16-24-alkyl derivs., calcium salts

Results of PBT assessment

Silicon dioxide : Non-classified vPvB substance, Non-classified PBT substance



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

White mineral oil (petroleum) : Non-classified PBT substance, Non-classified vPvB substance
calcium bis(dinonylnaphthalenesulphonate) : Non-classified PBT substance, Non-classified vPvB substance
Additional ecological information : No information on ecology is available.

13. Disposal considerations

Product : The product should not be allowed to enter drains, water courses or the soil.
Contaminated packaging : Empty containers can be landfilled, when in accordance with the local regulations.

14. Transport information

ADR

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

Other information : No special precautions required.

15. Regulatory information

16. Other information

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a



OKS 235

Version 1.2

Revision Date 18.06.2018

Print Date 24.07.2018

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