

OKS 2501

Version 2.1

Revision Date 07.09.2021

Print Date 07.09.2021

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

Product information

Product name : OKS 2501

Use of the Substance/Mixture : Lubricant spray

Company : 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 : mcm@oks-germany.com
Material Compliance Management

National contact :






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

2. Hazards identification

GHS Classification

: Aerosols, Category 1
Skin irritation, Category 2
Serious eye damage, Category 1
Reproductive toxicity, Category 2
Specific target organ toxicity - single exposure, Category 3, Central nervous system
Specific target organ toxicity - repeated exposure, Category 2, Oral
Specific target organ toxicity - repeated exposure, Category 2, Inhalation, Central nervous system
Aspiration hazard, Category 1
Short-term (acute) aquatic hazard, Category 2
Long-term (chronic) aquatic hazard, Category 2

GHS-Labeling

Symbol(s) :     

Signal word : Danger

Hazard statements : H222: Extremely flammable aerosol.
H229: Pressurised container: May burst if heated.



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H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure if swallowed.
H373: May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P260 Do not breathe mist.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P391 Collect spillage.
Storage:
P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

3. Composition/information on ingredients

Chemical nature : Active substance with propellant
Synthetic hydrocarbon oil
solid lubricant

Hazardous components

Chemical name	CAS-No.	Concentration[%]
Naphtha (petroleum), hydrotreated light	64742-49-0	25 - 30
Butane	106-97-8	20 - 30
propane	74-98-6	10 - 20
Titanium dioxide	13463-67-7	1 - 10
calcium dihydroxide	1305-62-0	3 - 10



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n-hexane	110-54-3	1 - 2,5
N,N'-ethylenedi(stearamide)	110-30-5	1 - 10
Amines, N-tallow alkyltrimethylenedi-, oleates	61791-53-5	1 - 2,5
Molybdenum, bis[O,O-bis(2-ethylhexyl)phosphorodithioato-.kappa.S,.kappa.S']dioxodi-.mu.-thioxodi-, (Mo-Mo)	72030-25-2	0,1 - 0,25

4. First aid measures

- If inhaled : Call a physician or poison control centre immediately.
Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
Get medical attention immediately.
- If swallowed : Move the victim to fresh air.
If accidentally swallowed obtain immediate medical attention.
Keep respiratory tract clear.
Do NOT induce vomiting.
Rinse mouth with water.
Aspiration hazard if swallowed - can enter lungs and cause damage.

Notes to physician

- Symptoms : Inhalation may provoke the following symptoms:
Unconsciousness
Dizziness



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- Drowsiness
- Headache
- Nausea
- Tiredness
- Skin contact may provoke the following symptoms:
 - Erythema
 - Allergic appearance
- Aspiration may cause pulmonary oedema and pneumonitis.
- Risks : Central nervous system depression
Risk of product entering the lungs on vomiting after ingestion.
Health injuries may be delayed.
Causes skin irritation.
May cause an allergic skin reaction.
- Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.
Treat symptomatically.

5. Firefighting measures

- Suitable extinguishing media : ABC powder
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)
Oxides of phosphorus
Metal oxides
- Specific hazards during firefighting : Fire Hazard
Do not let product enter drains.
Contains gas under pressure; may explode if heated.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- 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.
- Further information : Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Cool containers/tanks with water spray.



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6. Accidental release measures

- Personal precautions : Evacuate personnel to safe areas.
Ensure adequate ventilation.
Remove all sources of ignition.
Do not breathe vapours or spray mist.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- 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).
Keep in suitable, closed containers for disposal.
Non-sparking tools should be used.
- Additional advice : Only qualified personnel equipped with suitable protective equipment may intervene.

7. Handling and storage

Handling

- Advice on safe handling : Do not use in areas without adequate ventilation.
Do not breathe vapours or spray mist.
In case of insufficient ventilation, wear suitable respiratory equipment.
Avoid contact with skin and eyes.
For personal protection see section 8.
Keep away from fire, sparks and heated surfaces.
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 use sparking tools.
These safety instructions also apply to empty packaging which may still contain product residues.



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Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

Storage

Requirements for storage areas and containers : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
Store in accordance with the particular national regulations.

8. Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Butane	106-97-8	MPC-TWA	300 mg/m3	2018-04-23	RU OEL
Butane	106-97-8	MPC-STEL	900 mg/m3	2018-04-23	RU OEL
propane	74-98-6	MPC-TWA	300 mg/m3	2018-04-23	RU OEL
propane	74-98-6	MPC-STEL	900 mg/m3	2018-04-23	RU OEL
Titanium dioxide	13463-67-7	MPC-TWA	10 mg/m3	2018-04-23	RU OEL
calcium dihydroxide	1305-62-0	MPC-STEL	2 mg/m3	2018-04-23	RU OEL
n-hexane	110-54-3	MPC-TWA	300 mg/m3	2018-04-23	RU OEL
n-hexane	110-54-3	MPC-STEL	900 mg/m3	2018-04-23	RU OEL

Engineering measures

Use only in an area equipped with explosion proof exhaust ventilation.
Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment



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- Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Short term only
Filter type A-P
- Hand protection : butyl-rubber
Manufacturer, importer, supplier: Class 1
Break through time: > 10 min
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 : Tightly fitting safety goggles
- Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

9. Physical and chemical properties

Appearance

- Physical state : aerosol
Colour : white
Odour : solvent-like

Safety data

- Flash point : -20 °C
Method: Abel-Pensky
closed cup
- Ignition temperature : Remarks: No data available
- Lower explosion limit : 0,6 %(V)
- Upper explosion limit : 15 %(V)
- Flammability (solid, gas) : Not applicable



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Oxidizing properties	: Note: No data available
Auto-ignition temperature	: Note: not auto-flammable
pH	: Note: Not applicable substance/mixture is non-soluble (in water)
Melting point/range	: Note: No data available
Boiling point/boiling range	: -20 °C at 1.013,00 hPa
Sublimation point	: Note: No data available
Vapour pressure	: 2.860,00 hPa at 20 °C
Density	: 0,78 g/cm ³ at 20 °C
Bulk density	: Note: No data available
Water solubility	: Note: insoluble
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	: < 20,5 mm ² /s at 40 °C
Relative vapour density	: Note: No data available
Evaporation rate	: Note: No data available

10. Stability and reactivity

Conditions to avoid	: Heat, flames and sparks.
Materials to avoid	: Oxidizing agents
Hazardous decomposition products	: No decomposition if stored and applied as directed.
Thermal decomposition	: Note: No data available
Hazardous reactions	: No dangerous reaction known under conditions of normal use.



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11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity :
Remarks: Effects due to ingestion may include:
:
Symptoms: Central nervous system depression

Acute inhalation toxicity : Remarks: Respiration of solvent vapour may cause dizziness.
:
Symptoms: Inhalation may provoke the following symptoms:,
Respiratory disorder, Dizziness, Drowsiness, Vomiting,
Fatigue, Vertigo, Central nervous system depression

Acute dermal toxicity
Naphtha (petroleum),
hydrotreated light : LD50: > 2.000 mg/kg
Species: Rabbit
Method: OECD Test Guideline 402

calcium dihydroxide : LD50: > 2.500 mg/kg
Species: Rabbit
Method: OECD Test Guideline 402

n-hexane : LD50: 3.350 mg/kg
Species: Rabbit
Method: OECD Test Guideline 402

Amines, N-tallow
alkyltrimethylenedi-, oleates : LD50: > 2.000 mg/kg
Species: Rabbit

Molybdenum, bis[O,O-bis(2-ethylhexyl)
phosphorodithioato-
.kappa.S,.kappa.S']dioxodi-
.mu.-thioxodi-, (Mo-Mo) : Symptoms: Redness, Local irritation

Skin corrosion/irritation

Skin irritation : Remarks: Irritating to skin.

Serious eye damage/eye irritation

Eye irritation : Remarks: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Sensitisation : Remarks: This information is not available.

Germ cell mutagenicity

Genotoxicity in vitro : Remarks: No data available



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Genotoxicity in vivo : Remarks: No data available

Germ cell mutagenicity

Remarks

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

Amines, N-tallow alkyltrimethylenedi-, oleates : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Remarks

Titanium dioxide : No evidence of carcinogenicity in animal studies.

calcium dihydroxide : No evidence of carcinogenicity in animal studies.

Amines, N-tallow alkyltrimethylenedi-, oleates : No evidence of carcinogenicity in animal studies.

Teratogenicity

Remarks

Teratogenicity

Teratogenicity

Teratogenicity

Titanium dioxide : No effects on or via lactation
No toxicity to reproduction

calcium dihydroxide : No effects on or via lactation
No toxicity to reproduction

n-hexane : Suspected human reproductive toxicant

Amines, N-tallow alkyltrimethylenedi-, oleates : No toxicity to reproduction
No toxicity to reproduction

Target Organ Systemic Toxicant - Single exposure

Naphtha (petroleum), hydrotreated light : Exposure routes: Inhalation
Target Organs: Central nervous system
Remarks: May cause drowsiness or dizziness.

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

calcium dihydroxide : Remarks: May cause respiratory irritation.

n-hexane : Exposure routes: Inhalation
Target Organs: Central nervous system



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Remarks: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

Amines, N-tallow alkyltrimethylenedi-, oleates : 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.

Aspiration hazard

Aspiration toxicity : May be fatal if swallowed and enters airways.

: May be fatal if swallowed and enters airways.

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

12. Ecological information

Ecotoxicity effects

Toxicity to fish :
Remarks:
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Toxicity to algae : Remarks:
No data available

Amines, N-tallow alkyltrimethylenedi-, oleates : 10

Toxicity to bacteria : Remarks:
No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) calcium dihydroxide : NOEC: 32 mg/l
Exposure time: 14 d
Species: Crangon crangon (shrimp)
semi-static test



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Amines, N-tallow
alkyltrimethylenedi-, oleates : EC50: 1,41 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
semi-static test
Method: OECD Test Guideline 211

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 removability : Remarks:
No data available

Further information on ecology

Short-term (acute) aquatic hazard
Naphtha (petroleum), hydrotreated light : Toxic to aquatic life.
Amines, N-tallow alkyltrimethylenedi-, oleates : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard
Naphtha (petroleum), hydrotreated light : Toxic to aquatic life with long lasting effects.
Amines, N-tallow alkyltrimethylenedi-, oleates : Toxic to aquatic life with long lasting effects.
Naphtha (petroleum), hydrotreated light :
Amines, N-tallow alkyltrimethylenedi-, oleates :
Naphtha (petroleum), hydrotreated light :
Amines, N-tallow alkyltrimethylenedi-, oleates :
Naphtha (petroleum), hydrotreated light :



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hydrotreated light Amines, N-tallow alkyltrimethylenedi-, oleates :

Results of PBT assessment Titanium dioxide : Non-classified vPvB substance, Non-classified PBT substance

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

13. Disposal considerations

Product : Do not dispose of with domestic refuse. Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product. Offer empty spray cans to an established disposal company. Pressurized container: Do not pierce or burn, even after use.

14. Transport information

ADR

UN number : 1950
Description of the goods : AEROSOLS
Class : 2
Classification Code : 5F
Labels : 2.1
Environmentally hazardous : no

IATA

UN number : 1950
Description of the goods : Aerosols, flammable
Class : 2.1



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Labels : 2.1

Packing instruction (cargo aircraft) : 203

Packing instruction (passenger aircraft) : 203

Packing instruction (passenger aircraft) : Y203

Environmentally hazardous : no

IMDG

UN number : 1950

Description of the goods : AEROSOLS
(naphtha (petroleum), hydrotreated light, fatty amine derivative)

Class : 2.1

Labels : 2.1

EmS Number : F-D, S-U

Marine pollutant : yes

RID

UN number : 1950

Description of the goods : AEROSOLS

Class : 2

Classification Code : 5F

Hazard Identification Number : 23

Labels : 2.1



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Environmentally hazardous : yes

Other information : No special precautions required.

15. Regulatory information

16. Other information

Further information

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