



**OKS 111**

Version 1.4

Revision Date 2018-07-31

Print Date 2018-07-31

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

**Product information**

Product name : OKS 111

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

E-mail address : mcm@oks-germany.com

National contact :

Emergency telephone number : +86 512 8090 3042 (NCEC, 24 hrs)  
+86 532 8388 9090 (NRCC)

**2. Hazards identification**

**GHS Classification**

: Aerosols, Category 1  
Skin irritation, Category 2  
Specific target organ toxicity - single exposure, Category 3, Central nervous system  
Aspiration hazard, Category 1  
Chronic aquatic toxicity, Category 2

**GHS-Labeling**

Symbol(s) :    

Signal word : Danger

Hazard statements : H222: Extremely flammable aerosol.  
H229: Pressurised container: May burst if heated.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H336: May cause drowsiness or dizziness.  
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.



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P273 Avoid release to the environment.

**Response:**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331 Do NOT induce vomiting.

P391 Collect spillage.

**Storage:**

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

### 3. Composition/information on ingredients

Chemical nature : Active agent with propellant and solvent.  
Wax

#### Hazardous components

Chemical name	CAS-No.	Concentration[%]
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics		30 - 50
Butane	106-97-8	20 - 30
molybdenum disulphide	1317-33-5	10 - 20
propane	74-98-6	1 - 10
Isobutane	75-28-5	1 - 10

### 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 skin thoroughly with soap and water or use recognized



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skin cleanser.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.  
If easy to do, remove contact lens, if worn.  
Seek medical advice.

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  
Drowsiness  
Headache  
Nausea  
Tiredness  
Skin contact may provoke the following symptoms:  
Erythema  
  
Aspiration may cause pulmonary oedema and pneumonitis.

Risks : Central nervous system depression  
Can be absorbed through skin.  
Risk of product entering the lungs on vomiting after ingestion.  
Health injuries may be delayed.  
Causes skin irritation.

Treatment : Treat symptomatically.

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**5. Firefighting measures**

Suitable extinguishing media : ABC powder  
Unsuitable extinguishing media : High volume water jet  
Specific hazards during firefighting : Fire may cause evolution of:  
Carbon oxides  
Metal oxides  
Sulphur oxides



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- : 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. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Exposure to decomposition products may be a hazard to health.
  
- Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. 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.

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**7. Handling and storage**

**Handling**



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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.  
 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.  
 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
molybdenum disulphide	1317-33-5	PC-TWA	6 mg/m3	2007-04-27	GBZ 2.1-2007

**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**

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates



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that exposures are within recommended exposure guidelines.  
Short term only  
Filter type A-P

- Hand protection : Nitrile 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 : Safety glasses with side-shields conforming to EN166
- Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

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**9. Physical and chemical properties**

**Appearance**

- Physical state : aerosol  
Colour : black  
Odour : characteristic

**Safety data**

- Flash point : -60 °C  
Method: Abel-Pensky
- Ignition temperature : Remarks: No data available
- Lower explosion limit : 0.9 %(V)
- Upper explosion limit : 10.9 %(V)



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Flammability (solid, gas)	: Extremely flammable aerosol.
Oxidizing properties	: Note: No data available
Auto-ignition temperature	: Note: No data available
pH	: Note: Not applicable
Melting point/range	: Note: No data available
Boiling point/boiling range	: -161 °C at 1,013.00 hPa
Sublimation point	: Note: No data available
Vapour pressure	: 3,800.00 hPa at 20 °C
Density	: 0.77 g/cm <sup>3</sup> 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 <sup>2</sup> /s at 40 °C
Relative vapour density	: Note: No data available
Evaporation rate	: Note: No data available

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### 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



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**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

- Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method  
:  
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 :  
Remarks: Prolonged or repeated skin contact with liquid may  
cause defatting resulting in drying, redness and possible  
blistering.  
:  
Symptoms: Redness, Local irritation, Skin disorders

**Skin corrosion/irritation**

- Skin irritation : Remarks: Irritating to skin.

**Serious eye damage/eye irritation**

- Eye irritation : Remarks: Contact with eyes may cause irritation.

**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  
molybdenum disulphide : Animal testing did not show any mutagenic effects.





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**Carcinogenicity**

Remarks  
molybdenum disulphide : No evidence of carcinogenicity in animal studies.

**Target Organ Systemic Toxicant - Single exposure**

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics : Remarks: May cause drowsiness or dizziness.  
molybdenum disulphide : 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**

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

**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.

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**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



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Toxicity to bacteria : Remarks:  
No data available

**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**

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics :

Chronic aquatic toxicity Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics : Toxic to aquatic life with long lasting effects.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics :

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics :

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics :

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



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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.

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**14. Transport information**

**IATA**

UN number : 1950  
Description of the goods : Aerosols, flammable  
Class : 2.1  
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  
(Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)  
Class : 2.1  
Labels : 2.1



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EmS Number : F-D, S-U  
Marine pollutant : no  
Other information : No special precautions required.

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### 15. Regulatory information

Other regulations : Law on the Prevention and Control of Occupational Diseases

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### 16. Other information

#### Further information

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