



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

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

1.1 Product identifier

Product name : OKS 2100

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

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
Responsible/issuing person

National contact :

1.4 Emergency telephone number

+49 8142 3051 517

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Flammable	R10: Flammable.
Harmful	R65: Harmful: may cause lung damage if swallowed.
Dangerous for the environment	R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R66: Repeated exposure may cause skin dryness or cracking.
	R67: Vapours may cause drowsiness and dizziness.

OKS 2100





Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms	:				
Signal word	:	Danger			
Hazard statements	:	H226 H304	Flammable liquid and vapour. May be fatal if swallowed and enters airways.		
		H336 H411	May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.		
Precautionary statements	:	Prevention: P210 P261 P273	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing vapours. Avoid release to the environment.		
		Response: P301 + P310 P331 P370 + P378	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Do NOT induce vomiting. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.		
		Storage: P403 + P235	Store in a well-ventilated place. Keep cool.		

Hazardous components which must be listed on the label:
64742-48-9 low boiling point hydrogen treated naphtha

Additional Labelling:

EUH208 Contains: Calciumsulfonat, Calciumsulfonat. May produce an allergic reaction.
EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : Solvent
Wax

Hazardous components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
low boiling point	64742-48-9	R10	Flam. Liq. 3; H226	>= 70 - < 90

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

hydrogen treated naphtha	265-150-3 649-327-00-6	N; R51/53 Xn; R65 R66 R67	STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	
Calciumsulfonat		Xi; R36/38 R43 R53	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 4; H413	>= 0,25 - < 1
Calciumsulfonat		R43 R53	Skin Sens. 1; H317 Aquatic Chronic 4; H413	>= 0,25 - < 1

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of 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 skin cleanser.
- 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 : If accidentally swallowed obtain immediate medical attention.
If unconscious place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Aspiration hazard if swallowed - can enter lungs and cause damage.
Get medical attention if symptoms occur.
- : Move the victim to fresh air.



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

: Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water mist
ABC powder
Foam
Carbon dioxide (CO₂)

Unsuitable extinguishing media : Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Fire may cause evolution of:
Carbon oxides

: Do not let product enter drains.
Container may explode if heated.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

5.3 Advice for firefighters

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.

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.



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

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.

6.2 Environmental precautions

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.

6.3 Methods and materials 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).
Non-sparking tools should be used.

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Use only in an area containing explosion proof equipment.
Do not use in areas without adequate ventilation.
Do not breathe vapours/dust.
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.
Ensure all equipment is electrically grounded before beginning transfer operations.
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.
Do not enter areas where used or stored until adequately ventilated.
Do not repack.
Do not re-use empty containers.
These safety instructions also apply to empty packaging which may still contain product residues.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

Keep container closed when not in use.
Avoid inhalation of vapour or mist.

Advice on protection against fire and explosion : Keep away from heat and sources of ignition.

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 cool place away from oxidizing agents.
Keep in a dry, cool and well-ventilated place.
To maintain product quality, do not store in heat or direct sunlight.
Do not store together with oxidizing and self-igniting products.
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.

German storage class : 3 Flammable liquids

7.3 Specific end use(s)

: Consult the technical guidelines for the use of this substance/mixture.

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value type	Control parameters	Update	Basis
low boiling point hydrogen treated naphtha	64742-48-9	AGW	1.500 mg/m ³	2009-02-16	DE TRGS 900
Further information:	Group-AGW: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances See also No. 2.9 of the TRGS 900				
low boiling point hydrogen treated naphtha	64742-48-9	AGW	600 mg/m ³	2009-02-16	DE TRGS 900
Further information:	Group-AGW: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances See also No. 2.9 of the TRGS 900				

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).
Maintain air concentrations below occupational exposure standards.



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

Use only in an area equipped with explosion proof exhaust ventilation.
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Personal protective equipment

- Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Filter type A-P
- Hand protection : 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.
In case of contact through splashing:
: Nitrile rubber
Protective index Class 1
- 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.

Environmental exposure controls

- General advice : 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.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : liquid
- Colour : yellow
- Odour : solvent-like

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

Odour Threshold	: No data available
pH	: No data available
Melting point/range	: No data available
Boiling point/boiling range	: 145 °C
Flash point	: 39 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapour pressure	: <= 1.100 hPa, 20 °C
Relative vapour density	: No data available
Density	: 0,78 g/cm ³ , 20 °C
Water solubility	: immiscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: 4,3 mm ² /s, 40 °C
Explosive properties	: Not explosive
Oxidizing properties	: No data available

9.2 Other information

Sublimation point	: No data available
Bulk density	: No data available

10. Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

No decomposition if stored and applied as directed.

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 : Heat, flames and sparks.
Strong sunlight for prolonged periods.



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : No decomposition if stored and applied as directed.

11. Toxicological information

11.1 Information on toxicological effects

Product

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

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

Acute dermal toxicity : Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.
: Redness, Local irritation, Skin disorders

Skin corrosion/irritation : This information is not available.

Serious eye damage/eye irritation : Contact with eyes may cause irritation.

Respiratory or skin sensitisation : This information is not available.

Germ cell mutagenicity

Genotoxicity in vitro : No data available

Genotoxicity in vivo : No data available

Carcinogenicity : No data available

Reproductive toxicity : No data available

Teratogenicity : No data available

Repeated dose toxicity : This information is not available.

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

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

Components:

Calciumsulfonat :

Skin corrosion/irritation : Result: Skin irritation

Serious eye damage/eye irritation : Result: Eye irritation



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

Respiratory or skin sensitisation : Result: May cause sensitisation by skin contact.,
Classification: Probability or evidence of skin sensitisation in humans

Calciumsulfonat :
Respiratory or skin sensitisation : Result: May cause sensitisation by skin contact.,
Classification: Probability or evidence of skin sensitisation in humans

12. Ecological information

12.1 Toxicity

Product:

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

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

Toxicity to bacteria : No data available

Components:

Calciumsulfonat :

Ecotoxicology Assessment

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

Calciumsulfonat :

Ecotoxicology Assessment

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

12.2 Persistence and degradability

Product:

Biodegradability : No data available

Physico-chemical removability : No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation : 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).

12.4 Mobility in soil



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

Product:

Mobility : No data available
Distribution among environmental compartments : No data available

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.

12.6 Other adverse effects

Product:

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

13. Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
: Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging : Empty containers can be landfilled, when in accordance with the local regulations.

14. Transport information

14.1 UN number

ADR : 1993
IMDG : 1993
IATA : 1993

14.2 Proper shipping name

ADR : FLAMMABLE LIQUID, N.O.S. (low boiling point hydrogen treated naphtha)
IMDG : FLAMMABLE LIQUID, N.O.S. (low boiling point hydrogen treated naphtha)
IATA : FLAMMABLE LIQUID, N.O.S. (low boiling point hydrogen treated naphtha)

14.3 Transport hazard class

ADR : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADR



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

Packaging group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : (D/E)

IMDG

Packaging group : III
Labels : 3
EmS Number : F-E, S-E

IATA

Packing instruction (cargo aircraft) : 366
Packaging group : III
Labels : 3

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA

Environmentally hazardous : no

14.6 Special precautions for user

No special precautions required.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : Not applicable for product as supplied.

15. Regulatory information

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

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

Major Accident Hazard Legislation : 96/82/EC Update:
Dangerous for the environment
9b
Quantity 1: 200 t
Quantity 2: 500 t

: 96/82/EC Update:
Flammable.
6
Quantity 1: 5.000 t
Quantity 2: 50.000 t

: 96/82/EC Update:
Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

fuels, home heating oils and gas oil blending streams),(d)
heavy fuel oils

13

Quantity 1: 2.500 t

Quantity 2: 25.000 t

Water contaminating class (Germany) : WGK 2: water endangering

TA Luft List (Germany) : Total dust: Not applicable
Inorganic substances in powdered form: Not applicable
Inorganic substances in vapour or gaseous form: Not applicable
Organic Substances: Portion other substances: 4,96 %
Carcinogenic substances: portion Class 3: 84,7 %
Mutagenic: Portion other substances: 84,7 %
Toxic to reproduction: Not applicable

15.2 Chemical Safety Assessment

This information is not available.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R10	Flammable.
R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3.

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Further information

This safety datasheet applies only to products originally packaged and labelled by OKS Spezialschmierstoffe. The information contained therein is protected by copyright and must not be reproduced or amended without the express written approval of OKS Spezialschmierstoffe. This document may be passed on only to the extent required by law. Any dissemination of our safety datasheets (e.g. as a document for download from the Internet) beyond this legally required extent is not permitted without express written consent. OKS Spezialschmierstoffe provides its customers with amended safety datasheets as

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE



OKS 2100

Version 1.0

Revision Date 23.06.2016

Print Date 23.06.2016

prescribed by law. The customer is responsible for passing on safety datasheets and any amendments contained therein to its own customers, employees and other users of the product. OKS Spezialschmierstoffe provides no guarantee that safety datasheets received by users from third parties are up-to-date. All information and instructions in this safety datasheets were compiled to the best of our knowledge and are based on the information available to us. The data provided are intended to describe the product in relation to the required safety measures; they are neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and do not justify any contractual legal relationships.