



OKS 521

Version 1.0

Revision Date 04.05.2015

Print Date 09.03.2016

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

1.1 Product identifier

Product name : OKS 521

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Lubricant spray
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.: 0049 (0) 8142-3051-500
Fax.: 0049 (0) 8142-3051-599

E-mail address : mcm@oks-germany.com
Responsible/issuing person

National contact :

1.4 Emergency telephone number

0049 (0) 8142-3051-517

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 1	H222: Extremely flammable aerosol. H229: Pressurised container: May burst if heated.
Skin irritation, Category 2	H315: Causes skin irritation.
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 3	H412: Harmful to aquatic life with long lasting effects.

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

Extremely flammable	R12: Extremely flammable.
Irritant	R38: Irritating to skin. R67: Vapours may cause drowsiness and dizziness.
Dangerous for the environment	R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

:



Signal word

: Danger

Hazard statements

: H222
H229
H304

Extremely flammable aerosol.
Pressurised container: May burst if heated.
May be fatal if swallowed and enters
airways.
Causes skin irritation.
May cause drowsiness or dizziness.
Harmful to aquatic life with long lasting
effects.

H315
H336
H412

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.

P261

Avoid breathing mist.

P273

Avoid release to the environment.

P280

Wear protective gloves/ eye protection/ face
protection.

Response:

P301 + P310

IF SWALLOWED: Immediately call a
POISON CENTER or doctor/ physician.
Do NOT induce vomiting.

P331

Storage:

P410 + P412

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

Hazardous components which must be listed on the label:

123-86-4

n-butyl acetate

64742-49-0

low boiling point hydrogen treated naphtha

2.3 Other hazards

3. Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Index-No. Registration	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]

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	number			
low boiling point hydrogen treated naphtha	64742-49-0 265-151-9 649-328-00-1	F; R11 Xi; R38 N; R51/53 Xn; R65 R67	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	>= 20 - < 25
1-Butanol, titanium(4+) salt, homopolymer	9022-96-2	Xi; R36	Eye Irrit. 2; H319	>= 3 - < 10
Substances with a workplace exposure limit :				
butane	106-97-8 203-448-7 601-004-00-0	F+; R12	Flam. Gas 1; H220 Press. Gas Compr. Gas; H280	>= 30 - < 50
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 / 01- 2119485493- 29-XXXX	R10 R66 R67	Flam. Liq. 3; H226 STOT SE 3; H336	>= 20 - < 30
molybdenum disulphide	1317-33-5 215-263-9			>= 10 - < 20
Graphite	7782-42-5 231-955-3			>= 1 - < 10

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.

Note P:

The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene.

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 : Remove contaminated clothing. If irritation develops, get medical attention.
Wash off with soap and plenty of water.
Get medical attention 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.



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Seek medical advice.

If swallowed : If accidentally swallowed obtain immediate medical attention.
Keep respiratory tract clear.
Do NOT induce vomiting.
Rinse mouth with water.
Move the victim to fresh air.

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.

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

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

: 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.

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.
Cool containers / tanks with water spray.



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6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Evacuate personnel to safe areas.
Ensure adequate ventilation.
Remove all sources of ignition.
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).
Keep in suitable, closed containers for disposal.
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 : 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.

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7.2 Conditions for safe storage, including any incompatibilities

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.

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
butane	106-97-8	TWA	600 ppm 1,450 mg/m ³	2007-08-01	GB EH40
Further information:	Carc: Capable of causing cancer and/or heritable genetic damage. The identified substances include those which: - are assigned the risk phrases 'R45: May cause cancer'; 'R46: may cause heritable genetic damage'; 'R49: May cause cancer by inhalation' or - a substance or process listed in Schedule 1 of COSHH. Carcinogenic only applies if butane contains more than 0.1% of buta-1,3-diene				
butane	106-97-8	STEL	750 ppm 1,810 mg/m ³	2007-08-01	GB EH40
Further information:	Carc: Capable of causing cancer and/or heritable genetic damage. The identified substances include those which: - are assigned the risk phrases 'R45: May cause cancer'; 'R46: may cause heritable genetic damage'; 'R49: May cause cancer by inhalation' or - a substance or process listed in Schedule 1 of COSHH. Carcinogenic only applies if butane contains more than 0.1% of buta-1,3-diene				
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m ³	2005-04-06	GB EH40
n-butyl acetate	123-86-4	STEL	200 ppm 966 mg/m ³	2005-04-06	GB EH40
molybdenum disulphide	1317-33-5	TWA	10 mg/m ³	2005-04-06	GB EH40
Further information:	Molybdenum				
molybdenum disulphide	1317-33-5	STEL	20 mg/m ³	2005-04-06	GB EH40
Further information:	Molybdenum				
Graphite	7782-42-5	TWA	10 mg/m ³	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable				

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	dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
Graphite	7782-42-5	TWA	4 mg/m3	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				

8.2 Exposure controls

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 : In case of insufficient ventilation, wear suitable respiratory equipment.
Short term only
Combination filter:
: Filter type A-P
- Hand protection : 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.



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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	: aerosol
Colour	: black
Odour	: No information available.
Odour Threshold	: No data available
pH	: No data available
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: < 21 °C, Pensky-Martens
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	: 1.00 g/cm ³
Water solubility	: insoluble
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
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: No data available

9.2 Other information



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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.

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.
: Respiratory disorder, Dizziness, Drowsiness, Vomiting, Fatigue, Vertigo, Central nervous system depression, Inhalation may provoke the following symptoms:

Acute dermal toxicity : Redness, Local irritation

Skin corrosion/irritation : Irritating to skin.

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

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Teratogenicity	: No data available
Repeated dose toxicity	: This information is not available.
Aspiration toxicity	: May be fatal if swallowed and enters airways.
Further information	: Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

Components:

1-Butanol, titanium(4+) salt, homopolymer :

Serious eye damage/eye irritation : Result: Irritating to eyes.

butane :

Acute inhalation toxicity : LC50: 658 mg/l, 4 h, rat, gas

n-butyl acetate :

Acute oral toxicity : LD50 Oral: 10,760 mg/kg, rat

Skin corrosion/irritation : Result: Repeated exposure may cause skin dryness or cracking.

STOT - single exposure : Exposure routes: Inhalation
Assessment: May cause drowsiness or dizziness.

12. Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	Harmful 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

12.2 Persistence and degradability

Product:

Biodegradability	:	No data available
Physico-chemical removability	:	No data available



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Components:

n-butyl acetate :

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)., This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Components:

n-butyl acetate :

Bioaccumulation : No data available

12.4 Mobility in soil

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 : Harmful to aquatic life with long lasting effects.

13. Disposal considerations

13.1 Waste treatment methods

Product : In accordance with local and national regulations.
: Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging : Offer empty spray cans to an established disposal company.
Pressurized container: Do not pierce or burn, even after use.

14. Transport information

14.1 UN number

ADR : 1950

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IMDG : 1950
IATA : 1950

14.2 Proper shipping name

ADR : AEROSOLS
IMDG : AEROSOLS
IATA : AEROSOLS, FLAMMABLE

14.3 Transport hazard class

ADR : 2
IMDG : 2.1
IATA : 2.1

14.4 Packing group

ADR :
Classification Code : 5F
Labels : 2.1
Tunnel restriction code : (D)
IMDG
Labels : 2.1
EmS Number : F-D, S-U
IATA
Packing instruction (cargo aircraft) : 203
Labels : 2.1

14.5 Environmental hazards

ADR
Environmentally hazardous : no
IMDG
Marine pollutant : no
IATA
Environmentally hazardous : no

14.6 Special precautions for user

No data available

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

Not available

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:
Extremely flammable
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Quantity 1: 10 t
Quantity 2: 50 t

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: 96/82/EC Update:
Petroleum products: (a) gasolines and naphthas, (b)
kerosenes (including jet fuels), (c) gas oils (including diesel
fuels, home heating oils and gas oil blending streams)
13
Quantity 1: 2,500 t
Quantity 2: 25,000 t

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.
R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R38	Irritating to skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, 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.

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further information

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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.