

SAFETY DATA SHEET

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



OKS 428

Version 1.0

Revision Date 09.06.2016

Print Date 20.10.2016

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

1.1 Product identifier

Product name : OKS 428

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

Use of the Substance/Mixture : Grease

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)

Not a hazardous substance or mixture.

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

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Additional Labelling:

EUH210 Safety data sheet available on request.

2.3 Other hazards

3. Composition/information on ingredients

3.2 Mixtures

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Chemical nature : polyalkylene glycol oil
lithium soap

Hazardous components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole	59656-20-1 261-844-5	R52/53	Aquatic Chronic 3; H412	$\geq 2,5 - < 10$
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1 270-128-1 / 01- 2119491299- 23-XXXX	R52/53	Aquatic Chronic 3; H412	$\geq 1 - < 2,5$

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

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.



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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
Nitrogen oxides (NO_x)
Oxides of phosphorus
Sulphur oxides

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.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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 (dust).
Avoid breathing dust.
Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Clean up promptly by sweeping or vacuum.



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Keep in suitable, closed containers for disposal.

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 : Avoid contact with skin and eyes.
For personal protection see section 8.
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.

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 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.

German storage class : 11 Combustible Solids

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

Contains no substances with occupational exposure limit values.

DNEL
2,5-bis(tert-dodecyldithio)-
1,3,4-thiadiazole : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 4,408 mg/m³

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	End Use: Workers Exposure routes: Skin contact Potential health effects: Long-term systemic effects Value: 6,25 mg/kg bw/day
Benzenamine, N-phenyl-, reaction products with 2,4,4- trimethylpentene	: End Use: Workers Exposure routes: Skin contact Potential health effects: Chronic effects, Systemic effects Value: 0,62 mg/kg End Use: Workers Exposure routes: Inhalation Potential health effects: Chronic effects, Systemic effects Value: 4,37 mg/m3
PNEC 2,5-bis(tert-dodecyldithio)- 1,3,4-thiadiazole	: Fresh water Value: 0,041 mg/l Marine water Value: 0,0041 mg/l Intermittent use/release Value: 0,41 mg/l Microbiological Activity in Sewage Treatment Systems Value: 8000 mg/l Fresh water sediment Value: 380,62 mg/kg Marine sediment Value: 38,06 mg/kg Soil Value: 308,98 mg/kg Oral Value: 6,67 mg/kg
Benzenamine, N-phenyl-, reaction products with 2,4,4- trimethylpentene	: Fresh water Value: 0,051 mg/l Marine water Value: 0,0051 mg/l Fresh water sediment Value: 9320 mg/kg Marine sediment Value: 932 mg/kg Soil Value: 1860 mg/kg

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Sewage treatment plant

Value: 1 mg/l

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.

Personal protective equipment

- | | |
|------------------------|--|
| Respiratory protection | : Not required; except in case of aerosol formation.
Filter type P |
| Hand protection | : For prolonged or repeated contact use 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 | : 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. |

Environmental exposure controls

- | | |
|----------------|---|
| General advice | : Try to prevent the material from entering drains or water courses.
Local authorities should be advised if significant spillages cannot be contained. |
|----------------|---|

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|-----------------|---------------------|
| Form | : paste |
| Colour | : brown |
| Odour | : characteristic |
| Odour Threshold | : No data available |

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pH	: No data available
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: Not applicable
Evaporation rate	: No data available
Flammability (solid, gas)	: Combustible Solids
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapour pressure	: < 0,001 hPa, 20 °C
Relative vapour density	: No data available
Density	: 0,99 g/cm ³ , 20 °C
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
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
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

None reasonably foreseeable.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	: No dangerous reaction known under conditions of normal use.
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10.4 Conditions to avoid

Conditions to avoid	: No conditions to be specially mentioned.
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10.5 Incompatible materials



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Materials to avoid : No materials to be especially mentioned.

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 : This information is not available.
Acute inhalation toxicity : This information is not available.
Skin corrosion/irritation : This information is not available.
Serious eye damage/eye irritation : This information is not available.
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 : This information is not available.

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

Components:

2,5-bis(tert-dodecylthio)-1,3,4-thiadiazole :

Acute oral toxicity : LD50: > 5.000 mg/kg, Rat, OECD Test Guideline 401
Acute dermal toxicity : LD50: > 2.000 mg/kg, Rat, OECD Test Guideline 402
Skin corrosion/irritation : Rabbit, Result: No skin irritation, Classification: No skin irritation, OECD Test Guideline 404
Serious eye damage/eye irritation : Rabbit, Result: No eye irritation, Classification: No eye irritation, OECD Test Guideline 405
Respiratory or skin sensitisation : Buehler Test, Guinea pig, Result: Did not cause sensitisation on laboratory animals., Classification: Did not cause sensitisation on laboratory animals., OECD Test Guideline 406
Germ cell mutagenicity :
Assessment : Animal testing did not show any mutagenic effects.

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STOT - single exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene :

Acute oral toxicity : LD50: > 5.000 mg/kg, Rat, OECD Test Guideline 401

Acute dermal toxicity : LD50: > 2.000 mg/kg, Rat, OECD Test Guideline 402, The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation : Rabbit, Result: No skin irritation, Classification: No skin irritation

Serious eye damage/eye irritation : Rabbit, Result: No eye irritation, Classification: No eye irritation

Respiratory or skin sensitisation : Guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 406

12. Ecological information

12.1 Toxicity

Product:

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

Toxicity to bacteria : No data available

Components:

2,5-bis(tert-dodecylthio)-1,3,4-thiadiazole :

Toxicity to fish : LC50: > 1.000 mg/l, 96 h, Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates : EC50: 41 mg/l, 48 h, Daphnia magna (Water flea), OECD Test Guideline 202

Toxicity to algae : EC50: > 100 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae), Growth inhibition, OECD Test Guideline 201

Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

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Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene :

- Toxicity to fish : LC50: > 100 mg/l, 96 h, Danio rerio (zebra fish), OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50: 51 mg/l, 48 h, Daphnia magna (Water flea), static test, OECD Test Guideline 202
- Toxicity to bacteria : EC50: > 100 mg/l, 3 h, activated sludge, Respiration inhibition, OECD Test Guideline 209

12.2 Persistence and degradability

Product:

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

Components:

2,5-bis(tert-dodecylidithio)-1,3,4-thiadiazole :

- Biodegradability : Primary biodegradation, 0 %, Result: Not readily biodegradable., Exposure time: 28 d, activated sludge, OECD Test Guideline 301C

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene :

- Biodegradability : aerobic, 1 %, Result: Not rapidly biodegradable, Exposure time: 28 d, activated sludge, OECD Test Guideline 301B, GLP: yes

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).

Components:

2,5-bis(tert-dodecylidithio)-1,3,4-thiadiazole :

- Bioaccumulation : Fish, Bioconcentration factor (BCF): 3,16

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene :

- Bioaccumulation : Cyprinus carpio (Carp), Exposure time: 42 d, Bioconcentration factor (BCF): 1.730,
Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible.

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



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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.

Components:

2,5-bis(tert-dodecylthio)-1,3,4-thiadiazole :

Assessment : Non-classified PBT substance, Non-classified vPvB substance

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene :

Assessment : Non-classified PBT substance, Non-classified vPvB substance

12.6 Other adverse effects

Product:

Additional ecological information : No information on ecology is available.

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

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.2 Proper shipping name

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.3 Transport hazard class

ADR

Not dangerous goods

IMDG

Not dangerous goods

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IATA

Not dangerous goods

14.4 Packing group

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.5 Environmental hazards

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

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: Not applicable

Water contaminating class (Germany) : WGK 1: slightly water endangering

TA Luft List (Germany) : Total dust: Portion other substances: 4,82 %
Inorganic substances in powdered form: Not applicable
Inorganic substances in vapour or gaseous form: Not applicable
Organic Substances: Portion other substances: 95,18 %
Carcinogenic substances: Not applicable
Mutagenic: Not applicable
Toxic to reproduction: Not applicable

15.2 Chemical Safety Assessment

This information is not available.

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16. Other information

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

R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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Full text of H-Statements referred to under sections 2 and 3.

H412	Harmful to aquatic life with long lasting effects.
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Further information

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