according to GB/T 16483 and GB/T 17519



OKS 8601

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Date of first issue: 2013-09-19 Print Date: 2022-08-30 2022-08-30 1.6

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : OKS 8601

Chemical nature Active substance with propellant

ester oil

Manufacturer or supplier's details

Company name of supplier 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 of person

mcm@oks-germany.com

responsible for the SDS Material Compliance Management

National contact

Emergency telephone number : +86 532 8388 9090 (NRCC, only for hazardous chemicals)

+86 21 69225521

Recommended use of the chemical and restrictions on use

Recommended use Lubricant spray

Restrictions on use Restricted to professional users.

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance aerosol Colour yellow, brown Odour characteristic

Pressurised container: May burst if heated.

GHS Classification

Aerosols Category 3

GHS label elements

Hazard pictograms None

Signal word Warning

according to GB/T 16483 and GB/T 17519



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Hazard statements : H229 Pressurised container: May burst if heated.

Precautionary statements : Prevention:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces.

No smoking.

P251 Do not pierce or burn, even after use.

Storage:

P410 + P412 Protect from sunlight. Do not expose to

temperatures exceeding 50 °C/ 122 °F.

Physical and chemical hazards

Pressurised container: May burst if heated.

Health hazards

Not classified based on available information.

Environmental hazards

Not classified based on available information.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
2,2-dimethyl-1,3-propanediyl dioleate	42222-50-4	>= 1 -< 10
Carbamodithioic acid, dibutyl-, methylene ester	10254-57-6	>= 1 -< 2.5
9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine	68478-81-9	>= 0.25 -< 1

4. FIRST AID MEASURES

If inhaled : Obtain medical attention.

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



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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.

If eye irritation persists, consult a specialist.

If swallowed : Move the victim to fresh air.

Keep respiratory tract clear. Do NOT induce vomiting. Obtain medical attention. Rinse mouth with water.

Most important symptoms and effects, both acute and

delayed

No information available.

None known.

Notes to physician : No information available.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Unsuitable extinguishing

media

High volume water jet

Hazardous combustion

products

Carbon oxides

Nitrogen oxides (NOx)

Sulphur oxides

Specific extinguishing

methods

Standard procedure for chemical fires.

Collect contaminated fire extinguishing water separately. This

must not be discharged into drains. Cool containers/tanks with water spray.

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.

6. ACCIDENTAL RELEASE MEASURES



according to GB/T 16483 and GB/T 17519



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Personal precautions, protective equipment and emergency procedures Evacuate personnel to safe areas. Ensure adequate ventilation.

Do not breathe vapours or spray mist.

Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Try to prevent the material from entering drains or water

courses.

Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages

cannot be contained.

Methods and materials for containment and 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.

Prevention of secondary hazards

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.

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.

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.

Avoidance of contact : No materials to be especially mentioned.

Storage

Conditions for safe storage : 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



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red-hot objects.

Store in accordance with the particular national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : 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 that exposures are within recommended exposure guidelines.

Short term only

Filter type : Filter type A-P

Eye/face protection : Safety glasses with side-shields

Skin and body protection : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to

the specific work-place.

Hand protection

Material : Nitrile rubber
Break through time : > 10 min
Protective index : Class 1

Remarks : For prolonged or repeated contact use 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.

Protective measures : The type of protective equipment must be selected according

to the concentration and amount of the dangerous substance

at the specific workplace.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after

handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : aerosol

according to GB/T 16483 and GB/T 17519



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Colour : yellow, brown

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable

substance/mixture is non-soluble (in water)

Melting point/range : No data available

Boiling point/boiling range : 300 °C

(1,013 hPa)

Flash point : 290 °C

Method: ISO 2592

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Self-ignition : not auto-flammable

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : <1 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.94 (20 °C)

Reference substance: Water The value is calculated

Density : 0.94 g/cm3 (20 °C)

Bulk density : No data available

Solubility(ies)

Water solubility : insoluble

Solubility in other solvents : No data available

according to GB/T 16483 and GB/T 17519



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Partition coefficient: n-

octanol/water

: No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : > 21 mm2/s (40 °C)

Explosive properties : Not explosive

Oxidizing properties : No data available

Sublimation point : No data available

Metal corrosion rate : Not corrosive to metals

10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid : Strong sunlight for prolonged periods.

Risk of receptacle bursting.

Incompatible materials : No materials to be especially mentioned.

Hazardous decomposition

products

No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Symptoms: Inhalation may provoke the following symptoms:,

Respiratory disorder



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Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Components:

2,2-dimethyl-1,3-propanediyl dioleate:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 401

Carbamodithioic acid, dibutyl-, methylene ester:

Acute oral toxicity : LD50 Oral (Rat): 16,000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2,000 mg/kg

9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 423

GLP: yes

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine:

Species : human skin Assessment : Irritating to skin.

Method : OECD Test Guideline 439

Result : Irritating to skin.

GLP : yes

Serious eye damage/eye irritation

Product:

Remarks : Contact with eyes may cause irritation.



according to GB/T 16483 and GB/T 17519



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Components:

9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine:

Result : No eye irritation
Assessment : No eye irritation

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine:

Assessment : Did not cause sensitisation on laboratory animals. Result : Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Carcinogenicity

Product:

Remarks : No data available

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal : Remarks: No data available development



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Components:

9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine:

Reproductive toxicity -

Assessment

: - Fertility -

Some evidence of adverse effects on development, based on animal experiments., Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

- Teratogenicity -

Some evidence of adverse effects on development, based on animal experiments., Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

Product:

This information is not available.

Further information

Product:

Remarks : Information given is based on data on the components and

the toxicology of similar products.

Components:

2,2-dimethyl-1,3-propanediyl dioleate:

Remarks : Information given is based on data on the components and

the toxicology of similar products.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :

according to GB/T 16483 and GB/T 17519



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Remarks: No data available

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: No data available

Toxicity to algae/aquatic

plants

Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Components:

2,2-dimethyl-1,3-propanediyl dioleate:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 10,000 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h Method: ISO 6341

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Carbamodithioic acid, dibutyl-, methylene ester:

Toxicity to fish : LC50 (Fish): > 500 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

EC50 (Scenedesmus capricornutum (fresh water algae)): 41.3

ma/l

Exposure time: 72 h

9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l

Exposure time: 96 h Test Type: static test

Method: OECD Test Guideline 203

GLP: yes

according to GB/T 16483 and GB/T 17519



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Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 1,000 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 496

mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical

removability

: Remarks: No data available

Components:

2,2-dimethyl-1,3-propanediyl dioleate:

Biodegradability : Biodegradation: 85 %

Method: OECD Test Guideline 301B

Carbamodithioic acid, dibutyl-, methylene ester:

Biodegradability : Result: rapidly biodegradable

9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine:

Biodegradability : anaerobic

Inoculum: activated sludge Concentration: 3.77 mg/l

Result: Not readily biodegradable.

Biodegradation: 10 % Exposure time: 28 d

Method: OECD Test Guideline 301D

GLP: yes



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Bioaccumulative potential

Product:

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).

Components:

2,2-dimethyl-1,3-propanediyl dioleate:

Partition coefficient: n-

: log Pow: > 3

octanol/water

9-Octadecenoic acid (Z)-, reaction products with 3-(dodecenyl)dihydro-2,5-furandione and triethylenetetramine:

Partition coefficient: n-

octanol/water

log Pow: > 10

Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among

environmental compartments

Remarks: No data available

Other adverse effects

Product:

Additional ecological

information

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : 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.



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14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 1950
Proper shipping name : AEROSOLS

Class : 2.2

Packing group : Not assigned by regulation

Labels : 2.2

IATA-DGR

UN/ID No. : UN 1950

Proper shipping name : Aerosols, non-flammable

Class : 2.2

Packing group : Not assigned by regulation
Labels : Non-flammable, non-toxic Gas

203

Packing instruction (cargo

aircraft)

Packing instruction : 203

(passenger aircraft)

IMDG-Code

UN number : UN 1950
Proper shipping name : AEROSOLS

Class : 2.2

Packing group : Not assigned by regulation

Labels : 2.2 EmS Code : F-D, S-U Marine pollutant : no

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

Not applicable for product as supplied.

National Regulations

GB 6944/12268

UN number : UN 1950
Proper shipping name : AEROSOLS

Class : 2.2

Packing group : Not assigned by regulation

Labels : 2.2

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.



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15. REGULATORY INFORMATION

National regulatory information

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Not applicable

Hazardous Chemicals for Priority Management under : Not applicable

SAWS

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals : Not applicable

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import : Not applicable

and Export

International Regulations

Montreal Protocol : Not applicable

Rotterdam Convention (Prior Informed Consent) : Not applicable

Stockholm Convention (Persistent Organic Pollutants) : Not applicable

The components of this product are reported in the following inventories:

IECSC : On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

Date format : yyyy/mm/dd

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule;



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ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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