

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878 - DE



OKS 1149

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| Version | Revision Date: | Date of last issue: - | Print Date: |
| 1.0 | 07.05.2026 | Date of first issue: 07.05.2026 | 07.05.2026 |

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : OKS 1149

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

Company : OKS Spezialschmierstoffe GmbH
Ganghoferstr. 47
82216 Maisach
Germany
Tel.: +49 8142 3051-500
info@oks-germany.com

E-mail address of person responsible for the SDS : mcm@oks-germany.com

National contact : Klüber Lubrication Deutschland GmbH & Co. KG
Geisenhausenerstraße 7
81379 München
Germany
Tel.: +49 (0) 89 7876 0
customer.service.de@klueber.com

1.4 Emergency telephone number

Emergency telephone number : +49 8142 3051 517

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 2 H411: Toxic to aquatic life with long lasting effects.

Persistent, bioaccumulative and toxic EUH440: Accumulates in the environment and living organisms including in humans.

Very persistent and very bioaccumulative EUH441: Strongly accumulates in the environment

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and living organisms including in humans.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H411 Toxic to aquatic life with long lasting effects.
EUH441 Strongly accumulates in the environment and living organisms including in humans.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.
Response:
P391 Collect spillage.

Hazardous components which must be listed on the label:

octamethylcyclotetrasiloxane [D4]

decamethylcyclopentasiloxane

2.3 Other hazards

This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Avoid induction of air, low cross-section of pipes, high pressures and fast pressure increase. Degas system carefully before putting into operation. The product belongs to the category silicone greases with PTFE. This product category may form explosive decomposition reactions in conveying devices with high increase in pressure and low cross-section of pipes.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : silicone oil
Thickening agent

Components

| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | specific concentration limit M-Factor Notes Acute toxicity estimate | Concentration (% w/w) |
|--|---|---|---|--------------------------|
| dilithium azelate | 38900-29-7 254-184-4 01-2120119814-57-XXXX 01-2120119814-57-XXXX 01-2120119814-57-XXXX 01-2120119814-57-XXXX | Acute Tox. 4; H302 | | $\geq 1 - < 10$ |
| octamethylcyclotetrasiloxane [D4] | 556-67-2 209-136-7 014-018-00-1 01-2119529238-36-XXXX | Flam. Liq. 3; H226 Repr. 2; H361f Aquatic Chronic 1; H410 PBT; EUH440 vPvB; EUH441 | M-Factor: /10 *** | $\geq 1 - < 2,5$ |
| decamethylcyclopentasiloxane | 541-02-6 208-764-9 | PBT; EUH440 vPvB; EUH441 | | $\geq 0,1 - < 1$ |
| Substances with a workplace exposure limit : | | | | |
| Ethylene, tetrafluoro-, polymer | 9002-84-0 618-337-2 | Not classified | | $\geq 1 - < 10$ |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

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- 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 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.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Obtain medical attention.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Carbon oxides
Halogenated compounds

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Metal 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. 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.

SECTION 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 : Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 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.

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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.

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

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.

Storage class (TRGS 510) : 11, Combustible Solids

7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---------------------------------|-----------|---|-----------------------|--------------------------|
| Ethylene, tetrafluoro-, polymer | 9002-84-0 | MAK (measured as the alveolate fraction) | 0,3 mg/m ³ | DE DFG MAK (2024-07-01) |
| | | Peak-limit: excursion factor (category): 8; II | | |
| | | Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed | | |
| | | MAK (inhalable fraction) | 4 mg/m ³ | DE DFG MAK (2024-07-01) |
| | | Peak-limit: excursion factor (category): 8; II | | |
| | | Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed | | |
| | | BM (Alveolar dust fraction) | 0,5 mg/m ³ | DE TRGS 527 (2020-02-19) |

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

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| Substance name | End Use | Exposure routes | Potential health effects | Value |
|-----------------------------------|---------|-----------------|----------------------------|--------------------------|
| dilithium azelate | Workers | Dermal | Long-term systemic effects | 13,5 mg/kg bw/day |
| | Workers | Dermal | Long-term local effects | 0,172 mg/cm ² |
| octamethylcyclotetrasiloxane [D4] | Workers | Inhalation | Long-term systemic effects | 73 mg/m ³ |
| | Workers | Inhalation | Acute systemic effects | 73 mg/m ³ |
| | Workers | Inhalation | Long-term local effects | 73 mg/m ³ |
| | Workers | Inhalation | Acute local effects | 73 mg/m ³ |
| decamethylcyclopentasiloxane | Workers | Inhalation | Long-term systemic effects | 97,3 mg/m ³ |
| | Workers | Inhalation | Long-term local effects | 24,2 mg/m ³ |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

| Substance name | Environmental Compartment | Value |
|-----------------------------------|--|--------------|
| dilithium azelate | Fresh water | 0,023 mg/l |
| | Marine water | 0,002 mg/l |
| | | |
| octamethylcyclotetrasiloxane [D4] | Fresh water | 0,0015 mg/l |
| | Marine water | 0,00015 mg/l |
| | Microbiological Activity in Sewage Treatment Systems | 10 mg/l |
| | Fresh water sediment | 3 mg/kg |
| | Marine sediment | 0,3 mg/kg |
| | Soil | 0,84 mg/kg |
| decamethylcyclopentasiloxane | Fresh water | 0,0012 mg/l |
| | Marine water | 0,00012 mg/l |
| | Microbiological Activity in Sewage Treatment Systems | 10 mg/l |
| | Fresh water sediment | 11 mg/kg |
| | Marine sediment | 1,1 mg/kg |
| | Soil | 1,27 mg/kg |

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Eye/face protection : Safety glasses with side-shields

Hand protection

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

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- Remarks : Wear 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.
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
- 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.
- Respiratory protection : Not required; except in case of aerosol formation.
- Filter type : Filter type A-P
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Environmental exposure controls

- Air : Should not be released into the environment.
- Soil : Do not allow contact with soil, surface or ground water.
The product should not be allowed to enter drains, water courses or the soil.
- Water : Do not allow contact with soil, surface or ground water.
The product should not be allowed to enter drains, water courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Physical state : solid
- Form : solid
- Colour : white
- Odour : slight
- Odour Threshold : No data available

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Melting point/ range : No data available

Boiling point/boiling range : No data available

Flammability : Flammability (solid, gas):
Combustible Solids

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : > 320 °C
Method: closed cup

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : Not applicable
substance/mixture is non-soluble (in water)

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Solubility(ies)
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Vapour pressure : < 0,001 hPa (20 °C)

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Relative density : 1 (20 °C)
Reference substance: Water
The value is calculated

Density : 1,02 g/cm³
(20 °C)

Bulk density : No data available

Relative vapour density : No data available

9.2 Other information

Explosives : Not explosive

Oxidizing properties : No data available

Self-ignition : No data available

Evaporation rate : No data available

Sublimation point : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

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.

10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

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10.6 Hazardous decomposition products

Hazardous decomposition products : >150 °C small quantities of formaldehyde may be formed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Remarks: This information is not available.

Components:

dilithium azelate:

Acute oral toxicity : LD50 (Rat): > 300 mg/kg
Method: OECD Test Guideline 420
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

octamethylcyclotetrasiloxane [D4]:

Acute oral toxicity : LD50 (Rat): > 4.800 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): 36 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes

Acute dermal toxicity : LD50 (Rat): > 2.400 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

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decamethylcyclopentasiloxane:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : LC50 (Rat): 8,67 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

Ethylene, tetrafluoro-, polymer:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product:

Remarks : This information is not available.

Components:

dilithium azelate:

Assessment : No skin irritation
Result : No skin irritation

octamethylcyclotetrasiloxane [D4]:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation

decamethylcyclopentasiloxane:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

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Ethylene, tetrafluoro-, polymer:

Species : Rabbit
Assessment : No skin irritation
Result : No skin irritation

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Product:

Remarks : This information is not available.

Components:

dilithium azelate:

Species : Rabbit
Assessment : No eye irritation
Result : No eye irritation

octamethylcyclotetrasiloxane [D4]:

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405
Result : No eye irritation

decamethylcyclopentasiloxane:

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405
Result : No eye irritation
GLP : yes

Ethylene, tetrafluoro-, polymer:

Species : Rabbit
Assessment : No eye irritation
Result : No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Product:

Remarks : This information is not available.

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Components:

dilithium azelate:

Assessment : Does not cause skin sensitisation.
Result : Does not cause skin sensitisation.

octamethylcyclotetrasiloxane [D4]:

Test Type : Maximisation Test
Species : Guinea pig
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.

decamethylcyclopentasiloxane:

Assessment : Did not cause sensitisation on laboratory animals.
Method : OECD Test Guideline 429
Result : Did not cause sensitisation on laboratory animals.
GLP : yes

Ethylene, tetrafluoro-, polymer:

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

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Components:

octamethylcyclotetrasiloxane [D4]:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

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Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Germ cell mutagenicity-
Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Based on available data, the classification criteria are not met.

Product:

Remarks : No data available

Components:

Ethylene, tetrafluoro-, polymer:

Carcinogenicity -
Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Product:

Effects on fertility : Remarks: No data available

Effects on foetal
development : Remarks: No data available

Components:

octamethylcyclotetrasiloxane [D4]:

Reproductive toxicity -
Assessment : - Fertility -
Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT - single exposure

Based on available data, the classification criteria are not met.

Product:

Remarks : No data available

Components:

dilithium azelate:

Assessment : The substance or mixture is not classified as specific target

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organ toxicant, single exposure.

octamethylcyclotetrasiloxane [D4]:

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

Ethylene, tetrafluoro-, polymer:

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

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Product:

Remarks : No data available

Components:

dilithium azelate:

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

octamethylcyclotetrasiloxane [D4]:

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

Ethylene, tetrafluoro-, polymer:

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

Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

Based on available data, the classification criteria are not met.

Product:

This information is not available.

Components:

dilithium azelate:

No aspiration toxicity classification

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octamethylcyclotetrasiloxane [D4]:

No aspiration toxicity classification

Ethylene, tetrafluoro-, polymer:

No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Based on available data, the classification criteria are not met.

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

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

SECTION 12: Ecological information

12.1 Toxicity

Product:

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/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Components:

dilithium azelate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

octamethylcyclotetrasiloxane [D4]:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 1.000 mg/l
Exposure time: 96 h
Test Type: static test
Remarks: The product has low solubility in the test medium.
An aqueous dispersion was tested.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0,015 mg/l
End point: Immobilization
Exposure time: 48 h
GLP: yes
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,0079 mg/l
End point: mortality
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: flow-through test
GLP: yes

M-Factor (Chronic aquatic toxicity) : 10

Ecotoxicology Assessment

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

decamethylcyclopentasiloxane:

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

Components:

octamethylcyclotetrasiloxane [D4]:

Biodegradability : Result: Not rapidly biodegradable
Biodegradation: 3,7 %
Exposure time: 28 d
Method: OECD Test Guideline 310

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decamethylcyclopentasiloxane:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Not readily biodegradable.
Biodegradation: 0,14 %
Exposure time: 28 d
Method: OECD Test Guideline 310
GLP: yes

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

dilithium azelate:

Bioaccumulation : Bioconcentration factor (BCF): 3,0

Partition coefficient: n-octanol/water : log Pow: -3,56

octamethylcyclotetrasiloxane [D4]:

Bioaccumulation : Bioconcentration factor (BCF): 12.400
Remarks: Persistent, Bioaccumulative and Toxic (PBT).
Very persistent and very bioaccumulative (vPvB).

Partition coefficient: n-octanol/water : log Pow: 6,98

decamethylcyclopentasiloxane:

Bioaccumulation : Bioconcentration factor (BCF): 5.250
Method: OECD Test Guideline 305
GLP: yes

Partition coefficient: n-octanol/water : log Pow: 8,023 (25,3 °C)
Method: OECD Test Guideline 123
GLP: yes

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

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12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Components:

octamethylcyclotetrasiloxane [D4]:

Assessment : Persistent, Bioaccumulative and Toxic (PBT).
Very persistent and very bioaccumulative (vPvB).

decamethylcyclopentasiloxane:

Assessment : Persistent, Bioaccumulative and Toxic (PBT).
Very persistent and very bioaccumulative (vPvB).

Ethylene, tetrafluoro-, polymer:

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

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.

Waste codes should be assigned by the user based on the application for which the product was used.

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ADN : 9
ADR : 9
RID : 9
IMDG : 9
IATA : 9

14.4 Packing group

ADN
Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9

ADR
Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (-)

RID
Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9

IMDG
Packing group : III
Labels : 9
EmS Code : F-A, S-F

IATA (Cargo)
Packing instruction (cargo aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Miscellaneous Dangerous Goods

IATA (Passenger)
Packing instruction (passenger aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Miscellaneous Dangerous Goods

14.5 Environmental hazards

ADN
Environmentally hazardous : yes

ADR
Environmentally hazardous : yes

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RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)

Environmentally hazardous : yes

14.6 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.

14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:

Number on list 40
This substance/mixture shall not be used in aerosol dispensers intended for supply to the general public for entertainment and decorative purposes.

Number on list 70:
octamethylcyclotetrasiloxane [D4];
decamethylcyclopentasiloxane

Number on list 75
If you intend to use this product as tattoo ink, please contact your vendor.

Number on list 78:
Polymers of vinyl chloride or of other halogenated olefins, in primary forms

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synthetic polymer microparticles
(SPM) content: 9,9 %
The synthetic polymer microparticles
supplied is subject to conditions laid
down by entry 78 of Annex XVII to
Regulation (EC) No 1907/2006 of
the European Parliament and of the
Council

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). (EU SVHC) : octamethylcyclotetrasiloxane [D4]
decamethylcyclopentasiloxane

Regulation (EU) No 2024/590 on substances that deplete the ozone layer (EC 2024/590) : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) (EU POP) : Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals (EU PIC) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) (EU. REACH-Annex XIV) : Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. E2 ENVIRONMENTAL HAZARDS

Water hazard class (Germany) : WGK 3 highly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

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TA Luft List (Germany) : 5.2.1: Total dust:
others: 34,8 %
5.2.5: Organic Substances:
Class 1: 2,49 %

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 3,39 %

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

EUH440 : Accumulates in the environment and living organisms including in humans.
EUH441 : Strongly accumulates in the environment and living organisms including in humans.
H226 : Flammable liquid and vapour.
H302 : Harmful if swallowed.
H361f : Suspected of damaging fertility.
H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

*** : Hazard statements for reproductive toxicity: Hazard statements H360 and H361 indicate a general concern for effects on fertility and/or development: 'May damage/Suspected of damaging fertility or the unborn child'. According to the criteria, the general hazard statement can be replaced by the hazard statement indicating the specific effect of concern in accordance with Section 1.1.2.1.2. When the other differentiation is not mentioned, this is due to evidence proving no such effect, inconclusive data or no data and the obligations in Article 4(3) shall apply for that differentiation. In order not to lose information from the harmonised classifications for fertility and developmental effects under Directive 67/548/EEC, the classifications have been translated only for those effects classified under that Directive

Acute Tox. : Acute toxicity
Aquatic Chronic : Long-term (chronic) aquatic hazard
Flam. Liq. : Flammable liquids
PBT : Persistent, bioaccumulative and toxic

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| | | |
|------------------|---|---|
| Repr. | : | Reproductive toxicity |
| vPvB | : | Very persistent and very bioaccumulative |
| DE DFG MAK | : | Germany. MAK BAT Annex IIa |
| DE TRGS 527 | : | Germany. TRGS 527 - Activities with nanomaterials |
| DE DFG MAK / MAK | : | MAK value |
| DE TRGS 527 / BM | : | Assessment scale |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

| | |
|-------------------|--------|
| Aquatic Chronic 2 | H411 |
| PBT | EUH440 |
| vPvB | EUH441 |

Classification procedure:

| |
|--------------------|
| Calculation method |
| Calculation method |
| Calculation method |

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.

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