

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758 - GB



OKS 1149

Version	Revision Date:	Date of last issue: 22.08.2022	Print Date:
1.4	19.11.2025	Date of first issue: 31.05.2016	19.11.2025

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-Gernlinden
Deutschland
Tel.: +49 8142 3051 500
Fax: +49 8142 3051 599
info@oks-germany.com

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

National contact :

1.4 Emergency telephone number

Emergency telephone number : +49 8142 3051 517 (24/7 service)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Long-term (chronic) aquatic hazard,
Category 3

H412: Harmful to aquatic life with long lasting effects.

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.

2.3 Other hazards

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.

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	Acute Tox. 4; H302		>= 1 - < 10
dibutyl 1,4,5,6,7,7-hexachlorobicyclo[2.2.1]hept-5-ene-2,3-dicarboxylate	1770-80-5 217-192-9	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410		>= 1 - < 2.5

For explanation of abbreviations see section 16.

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SECTION 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 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 : High volume water jet

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media

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Carbon oxides
Halogenated compounds
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.

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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.

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.

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

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL)

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

Predicted No Effect Concentration (PNEC)

Substance name	Environmental Compartment	Value
dilithium azelate	Fresh water	0.023 mg/l
	Marine water	0.002 mg/l

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8.2 Exposure controls

Engineering measures

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

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
- 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.
- 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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : solid

Form : solid

Colour : white

Odour : slight

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 : No data available

Flash point : > 320 °C

Evaporation rate : 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

Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

Relative density : 1

Density : 1.02 g/cm³
(20 °C)

Bulk density : No data available

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Solubility(ies)
Water solubility : insoluble

Solubility in other solvents : No data available

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 : Not applicable

Explosive properties : Not explosive

Oxidizing properties : No data available

9.2 Other information

Sublimation point : No data available

Self-ignition : 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

>150 °C small quantities of formaldehyde may be formed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

dibutyl 1,4,5,6,7,7-hexachlorobicyclo[2.2.1]hept-5-ene-2,3-dicarboxylate:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

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

dibutyl 1,4,5,6,7,7-hexachlorobicyclo[2.2.1]hept-5-ene-2,3-dicarboxylate:

Result : Irritating to skin.

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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

dibutyl 1,4,5,6,7,7-hexachlorobicyclo[2.2.1]hept-5-ene-2,3-dicarboxylate:

Result : Irritating to eyes.
Remarks : Non persistent 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.

Components:

dilithium azelate:

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

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

Carcinogenicity

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

Product:

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Remarks : No data available

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

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 organ toxicant, single exposure.

dibutyl 1,4,5,6,7,7-hexachlorobicyclo[2.2.1]hept-5-ene-2,3-dicarboxylate:

Exposure routes : Inhalation

Assessment : May cause respiratory irritation.

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.

Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

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

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Product:

This information is not available.

Components:

dilithium azelate:

No aspiration toxicity classification

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: Harmful 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

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

dibutyl 1,4,5,6,7,7-hexachlorobicyclo[2.2.1]hept-5-ene-2,3-dicarboxylate:

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

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12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical
removability : Remarks: No data available

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

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among
environmental compartments : Remarks: 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:

Endocrine disrupting
potential : This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

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

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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.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of waste product or used containers according to local regulations.

The following Waste Codes are only suggestions:

Waste Code : used product, unused product
12 01 12*, spent waxes and fats

uncleaned packagings
15 01 10*, packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

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ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Not applicable

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation (UK SVHC) : This product does not contain substances of very high concern (UK: The REACH etc. (Amendment) Regulations, Article 57).

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) (GB POPs) : Not applicable

Regulation (EU) No 2024/590 on substances that : Not applicable

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deplete the ozone layer
(EC 2024/590)

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

GB Export and import of hazardous chemicals - Prior : Not applicable
Informed Consent (PIC) Regulation
(GB PIC)

The Control of Explosives Precursors and Poisons : Not applicable
Regulations (Poisons Act, as amended)
(GB Poisons Act)

Control of Major Accident Hazards Regulations : Not applicable
2015 (COMAH)

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial and
livestock rearing emissions (integrated pollution prevention and
control)
Not applicable

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed.
H315 : Causes skin irritation.
H319 : Causes serious eye irritation.
H335 : May cause respiratory irritation.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Acute : Short-term (acute) aquatic hazard

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Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Irrit. : Eye irritation
Skin Irrit. : Skin irritation
STOT SE : Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - 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 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; 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 - 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; 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; 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

Further information

Classification of the mixture:

Aquatic Chronic 3 H412

Classification procedure:

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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