

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

1.1 Product identifier

Product name: RENOLIT HI-TEMP 220

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

Identified uses: Lubricating grease

Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier FUCHS LUBRICANTS GERMANY GmbH
Friesenheimer Str. 19
68169 Mannheim

Telephone: +49 621 3701-0 (ZENTRALE)
Fax: +49 621 3701-570

Contact for request of safety data sheets

E-mail: Automotive lubricants CS.Services-FLG@fuchs.com
Industrial lubricants
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Informing department for safety data sheets

E-mail: produktsicherheit-FLG@fuchs.com

1.4 Emergency telephone number: +49 621 3701-0 (Mo - Fr 08:00 - 16:00 Uhr)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified and labelled as hazardous according to regulation (EU) 1272/2008 (CLP).

Classification according to Regulation (EC) No 1272/2008 as amended.

Environmental Hazards

Chronic hazards to the aquatic environment

Category 3

H412: Harmful to aquatic life with long lasting effects.

Hazard summary

Physical Hazards: No data available.

2.2 Label Elements

Product name: RENOLIT HI-TEMP 220

Hazard Statement(s): H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: P273: Avoid release to the environment.

Disposal: P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Supplemental label information

EUH208: Contains: Organic polysulphide, carboxylic acid zinc salt. May produce an allergic reaction.

2.3 Information on other hazards

By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept. The product may not be released into the environment without control.

Endocrine disrupting properties

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Lubricating grease: Thickener system and additives in synthetic base oil.

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
dilithium sebacate	EINECS: 242-999-8	5,00% - <10,00%	01-2120119384-60	
ZnDTP	EINECS: 224-235-5	1,00% - <2,50%	01-2119493635-27	
Organic polysulphide	EINECS: 270-335-7	0,10% - <1,00%	01-2119540516-41	
carboxylic acid zinc salt	EINECS: 282-762-6	0,10% - <1,00%	01-2119988500-34	
phenolic antioxidant	EINECS: 204-881-4	0,25% - <1,00%	01-2119565113-46	
Zn-Octoate	EINECS: 286-272-3	0,10% - <1,00%	01-2119979093-30	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Product name: RENOLIT HI-TEMP 220

Classification

Chemical name	Identifier	Classification
dilithium sebacate	EINECS: 242-999-8	CLP: Acute Tox. 4;H302
ZnDTP	EINECS: 224-235-5	CLP: Eye Dam. 1;H318, Aquatic Chronic 2;H411
Organic polysulphide	EINECS: 270-335-7	CLP: Skin Sens. 1B;H317
carboxylic acid zinc salt	EINECS: 282-762-6	CLP: Skin Sens. 1;H317, Aquatic Chronic 3;H412
phenolic antioxidant	EINECS: 204-881-4	CLP: Aquatic Acute 1;H400, Aquatic Chronic 1;H410; M-Factor (aquatic acute): 1; M-Factor (aquatic chronic): 1
Zn-Octoate	EINECS: 286-272-3	CLP: Repr. 2;H361d, Eye Irrit. 2;H319, Aquatic Chronic 3;H412

CLP: Regulation No. 1272/2008.

specific concentration limit

Chemical name	Identifier	specific concentration limit	Hazard class	Hazard Category	Hazard statements
ZnDTP	EINECS: 224-235-5	> 50 % > 50 %	Serious eye damage Serious eye irritation	1 2	H318 H319

For the wording of the listed hazard statements refer to section 16.

SECTION 4: First aid measures

General: Instantly remove any clothing soiled by the product.

4.1 Description of first aid measures

Inhalation: Supply fresh air; consult doctor in case of symptoms.

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Skin Contact: Wash with soap and water.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: May cause skin and eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO₂, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added

Product name: RENOLIT HI-TEMP 220

Unsuitable extinguishing media: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture: During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire-fighting procedures: Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Not required.

6.2 Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up: Scrape up spillage or absorb with absorbing material. Dispose of the material collected according to regulations. Stop the flow of material, if this is without risk.

6.4 Reference to other sections: See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling. See Section 13 for information on disposal.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling: Provide adequate ventilation. Observe good industrial hygiene practices. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products.

7.2 Conditions for safe storage, including any incompatibilities: Local regulations concerning handling and storage of waterpolluting products have to be followed.

7.3 Specific end use(s): Not applicable

Storage Class: 11, Combustible solids

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
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Product name: RENOLIT HI-TEMP 220

carboxylic acid zinc salt - Inhalable fraction.	MAK	2 mg/m ³	Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as amended (2011)
carboxylic acid zinc salt - Respirable fraction.	MAK	0,1 mg/m ³	Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as amended (2011)

8.2 Exposure controls**Appropriate engineering controls:**

Provide adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment**General information:**

Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to in handling the chemicals or the mineral oil products.

Eye/face protection:

Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield.

Skin protection**Hand Protection:**

Material: Nitrile butyl rubber (NBR).
Min. Breakthrough time: ≥ 480 min
Recommended thickness of the material: $\geq 0,38$ mm

Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other:

Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory Protection:

Not relevant, due to the form of the product.

Thermal hazards:

Not known.

Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Environmental Controls:

No data available.

SECTION 9: Physical and chemical properties

Product name: RENOLIT HI-TEMP 220

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	solid
Form:	Paste
Color:	Light beige
Odor:	Characteristic
pH:	substance/mixture is non-soluble (in water)
Drop Point:	250 °C (IP 396)
Boiling Point:	not determined
Flash Point:	Not applicable
Evaporation Rate:	Not applicable for mixtures
Flammability (solid, gas):	not determined
Flammability Limit - Upper (%)—:	Not applicable for mixtures
Flammability Limit - Lower (%)—:	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Relative vapor density:	Not applicable for mixtures
Density:	0,90 g/ml (25,00 °C)
Solubility(ies)	
Solubility in Water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable for mixtures
Autoignition Temperature:	not determined
Decomposition Temperature:	not determined
NLGI:	2
Explosive properties:	Value not relevant for classification
Oxidizing properties:	Value not relevant for classification
Particle characteristics:	Study technically not feasible
9.2 Other information	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Stable under normal use conditions.
10.2 Chemical Stability:	Stable under normal use conditions.
10.3 Possibility of hazardous reactions:	Stable under normal use conditions.
10.4 Conditions to avoid:	Stable under normal use conditions.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Product name: RENOLIT HI-TEMP 220

SECTION 11: Toxicological information

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

Acute toxicity

Oral

Product:	ATEmix: 38.511 mg/kg
Specified substance(s) dilithium sebacate	LD 50 (Rat): 2.000 mg/kg (OECD 420)
ZnDTP	LD 50 (Rat): 4.358 mg/kg
phenolic antioxidant	LD 50 (Rat): > 2.930 mg/kg (OECD 401)

Dermal

Product:	Not classified for acute toxicity based on available data.
Specified substance(s) ZnDTP	LD 50 (Rabbit): > 5.000 mg/kg (OECD 402)
phenolic antioxidant	LD 50 (Rat): > 5.000 mg/kg (OECD 402)

Inhalation

Product:	Not classified for acute toxicity based on available data.
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Skin Corrosion/Irritation:

Product:	Based on available data, the classification criteria are not met.
Specified substance(s) dilithium sebacate	OECD 431 Based on available data, the classification criteria are not met. OECD 439 Based on available data, the classification criteria are not met.
ZnDTP	(Rabbit): None.

Serious Eye Damage/Eye Irritation:

Product:	Based on available data, the classification criteria are not met.
Specified substance(s) dilithium sebacate	OECD 405 (Rabbit): Based on available data, the classification criteria are not met.
ZnDTP	(Rabbit): Slightly irritating.

Product name: RENOLIT HI-TEMP 220

Respiratory or Skin Sensitization:

Product: Skin sensitizer: Based on available data, the classification criteria are not met.
Respiratory sensitizer: Based on available data, the classification criteria are not met.

Specified substance(s)

dilithium sebacate , OECD 429 (Mouse)
Based on available data, the classification criteria are not met.

ZnDTP , OECD 406-1 (Guinea Pig)
Not a skin sensitizer.

phenolic antioxidant
No sensitizing effect (guinea pig); OECD 406

Germ Cell Mutagenicity

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

In vitro

Specified substance(s)

dilithium sebacate (OECD 471)
Based on available data, the classification criteria are not met.

Carcinogenicity

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

Reproductive toxicity

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

Specific Target Organ Toxicity - Single Exposure

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

Specific Target Organ Toxicity - Repeated Exposure

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

Aspiration Hazard

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

11.2 Information on other hazards

Endocrine disrupting properties

Product: 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.

Product name: RENOLIT HI-TEMP 220

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

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

Fish

Specified substance(s)

dilithium sebacate LC 50 (Fish, 96 h): 100 mg/l (OECD 203)

ZnDTP LC 50 (Fish, 96 h): 4,4 mg/l (OECD 203)

Organic polysulphide LC 50 (Fish, 96 h): > 100 mg/l (OECD 203)

Zn-Octoate LC 50 (Fish, 96 h): 100 mg/l (OECD 203)

Aquatic Invertebrates

Specified substance(s)

dilithium sebacate EC 50 (Water Flea, 48 h): 100 mg/l (OECD 202)

ZnDTP EC 50 (Water Flea, 48 h): 75 mg/l (OECD 202)

phenolic antioxidant EC 50 (Water Flea, 48 h): 0,61 mg/l (OECD 202)

Chronic ToxicityProduct: Based on available data, the classification criteria are met.

Fish

Specified substance(s)

ZnDTP NOEC (Fish, 4 d): 3,2 mg/l

Aquatic Invertebrates

Specified substance(s)

ZnDTP NOEC (Water Flea, 21 d): 0,4 mg/l

phenolic antioxidant NOEC (Water Flea, 21 d): > 0,39 mg/l

Toxicity to Aquatic Plants

Specified substance(s)

dilithium sebacate EC 50 (Alga, 72 h): 100 mg/l (OECD 201)

ZnDTP EC 50 (Alga, 72 h): 410 mg/l
NOEC (Alga, 72 h): 220 mg/l

12.2 Persistence and Degradability

Biodegradation

Product: Not applicable for mixtures

Product name: RENOLIT HI-TEMP 220

Specified substance(s) dilithium sebacate	(OECD 301D) Inherently biodegradable
ZnDTP	5 % (28 d, OECD 301B) Not readily degradable.
carboxylic acid zinc salt	29 % (28 d, OECD 301B) Not easily biodegradable
phenolic antioxidant	30 % (OECD 302C) Not readily degradable.
Zn-Octoate	70 % (28 d, OECD 301D) Readily biodegradable

12.3 Bioaccumulative potential

Product:	Not applicable for mixtures
Specified substance(s) phenolic antioxidant	May be accumulated in organism

12.4 Mobility in soil:

Product:	Not applicable for mixtures
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12.5 Results of PBT and vPvB assessment:

The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Endocrine disrupting properties

Product:	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.
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12.7 Other adverse effects:

Harmful to aquatic life with long lasting effects.

Water Hazard Class (WGK):

WGK 2: significantly water-endangering.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

General information:	Dispose in accordance with all applicable regulations.
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Disposal methods:	Discharge, treatment, or disposal may be subject to national, state, or local laws.
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European Waste Codes

12 01 12*: spent waxes and fats

Product name: RENOLIT HI-TEMP 220

SECTION 14: Transport information

ADR/RID

- | | |
|------------------------------------|---------------------|
| 14.1 UN number or ID number: | — |
| 14.2 UN Proper Shipping Name: | — |
| 14.3 Transport Hazard Class(es) | |
| Class: | Non-dangerous goods |
| Label(s): | — |
| Hazard No. (ADR): | — |
| Tunnel restriction code: | — |
| 14.4 Packing Group: | — |
| 14.5 Environmental hazards: | — |
| 14.6 Special precautions for user: | — |

IMDG

- | | |
|------------------------------------|---------------------|
| 14.1 UN number or ID number: | — |
| 14.2 UN Proper Shipping Name: | — |
| 14.3 Transport Hazard Class(es) | |
| Class: | Non-dangerous goods |
| Label(s): | — |
| EmS No.: | — |
| 14.3 Packing Group: | — |
| 14.5 Environmental hazards: | — |
| 14.6 Special precautions for user: | — |

IATA

- | | |
|------------------------------------|---------------------|
| 14.1 UN number or ID number: | — |
| 14.2 Proper Shipping Name: | — |
| 14.3 Transport Hazard Class(es): | |
| Class: | Non-dangerous goods |
| Label(s): | — |
| 14.4 Packing Group: | — |
| 14.5 Environmental hazards: | — |
| 14.6 Special precautions for user: | — |

14.7 Maritime transport in bulk according to IMO instruments: Not applicable.

SECTION 15: Regulatory information

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

EU Regulations

EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: none

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: none

National Regulations

Water Hazard Class (WGK): WGK 2: significantly water-endangering.

Product name: RENOLIT HI-TEMP 220

15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information:

Vertical lines in the margin indicate an amendment.

Wording of the H-statements in section 2 and 3

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Other information:

The classification complies with the current EU lists; however, it has been supplemented with expert literature information and information provided by/about our company. The following evaluation methods were used: - On the basis of test data - Calculation Method - Bridging Principle "Substantially similar mixtures" - Expert Judgement

Revision Date:

22.02.2023

Disclaimer:

The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.