

## **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 AX 2

#### **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  
**Telephone:** +49 621 3701-0 (ZENTRALE)

#### **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 not been classified as hazardous, but needs to be labelled according to regulation (EU) 1272/2008 (CLP).

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

#### **Hazard summary**

**Physical Hazards:** No data available.

#### **2.2 Label Elements**

**Product name:** RENOLIT AX 2

EUH208: Contains Ca sulfonate, Tolutriazole derivative. May produce an allergic reaction.

EUH210: Safety data sheet available on request.

**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.

**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.

**Results of PBT and vPvB 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.

**SECTION 3: Composition/information on ingredients**
**3.2 Mixtures**
**General information:**

Lubricating grease: Thickener system and additives in solvent refined mineral oil.

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
Thiocarbamate	EINECS: 233-593-1	1,00% - <5,00%	01-2119969655-20	
ZnDTP	EINECS: 224-235-5	1,00% - <2,50%	01-2119493635-27	
Ca sulfonate	EINECS: 939-603-7	1,00% - <5,00%	01-2119978241-36	
Tolutriazole derivative	EINECS: 939-700-4	0,10% - <1,00%	01-2119982395-25	

\* 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.

**Classification**

Chemical name	Identifier	Classification
Thiocarbamate	EINECS: 233-593-1	CLP: Aquatic Chronic 4;H413
ZnDTP	EINECS: 224-235-5	CLP: Eye Dam. 1;H318, Aquatic Chronic 2;H411
Ca sulfonate	EINECS: 939-603-7	CLP: Skin Sens. 1B;H317
Tolutriazole derivative	EINECS: 939-700-4	CLP: Skin Irrit. 2;H315, Skin Sens. 1B;H317, Aquatic Acute 1;H400, Aquatic Chronic 2;H411

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 %	Serious eye damage	1	H318
		> 50 %	Serious eye irritation	2	H319
Ca sulfonate	EINECS: 939-603-7	>= 10 %	Skin sensitizer	1B	H317

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

**Product name:** RENOLIT AX 2

Please note that the mineral oils and petroleum distillates used in our products are severely refined and have a DMSO extract < 3% as measured by method IP 346 and are not classified as carcinogenic according to Nota L/ Nota N of Annex VI of Regulation EC 1272/2008."

## 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:** No data available.

**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:** CO<sub>2</sub>, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added

**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.

**Product name:** RENOLIT AX 2

## SECTION 6: Accidental release measures

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|---|--|
| <b>6.1 Personal precautions, protective equipment and emergency procedures:</b> | Not required.  |
| <b>6.2 Environmental Precautions:</b>   | Avoid release to the environment. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so. Do not allow to enter drainage system, surface or ground water. |
| <b>6.3 Methods and material for containment and cleaning up:</b>                | 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.  |
| <b>6.4 Reference to other sections:</b>   | 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:

- |  |  |
|--|--|
| <b>7.1 Precautions for safe handling:</b>                                | 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.   |
| <b>7.2 Conditions for safe storage, including any incompatibilities:</b> | Store in original tightly closed container. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Store away from incompatible materials. No special precautions necessary if used correctly. Use only containers specifically permitted for this substance/product. Protect from contamination |
| <b>7.3 Specific end use(s):</b>  | No data available.   |
| <b>Storage Class:</b>  | 11, Combustible solids   |

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters

#### Occupational Exposure Limits

None of the components have assigned exposure limits.

### 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 (PPE)**

**Product name:** RENOLIT AX 2

<b>General information:</b>	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.
<b>Eye/face protection:</b>	Safety glasses (EN 166) recommended during refilling.
<b>Skin protection</b>	
<b>Hand Protection:</b>	Material: Nitrile butyl rubber (NBR). Min. Breakthrough time: $\geq 480$ 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.
<b>Other:</b>	Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.
<b>Respiratory Protection:</b>	Not relevant, due to the form of the product.
<b>Thermal hazards:</b>	Not known.
<b>Hygiene measures:</b>	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.
<b>Environmental Controls:</b>	No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state:</b>	solid
<b>Form:</b>	Paste
<b>Color:</b>	Brown
<b>Odor:</b>	Characteristic
<b>pH:</b>	Not applicable
<b>Drop Point:</b>	not determined
<b>Boiling Point:</b>	not determined
<b>Flash Point:</b>	Not applicable
<b>Flammability (solid, gas):</b>	not determined
<b>Explosion Limit - Upper (%):</b>	Not applicable for mixtures
<b>Explosion Limit - Lower (%):</b>	Not applicable for mixtures
<b>Vapor pressure:</b>	Not applicable for mixtures
<b>Relative vapor density:</b>	Not applicable for mixtures
<b>Density:</b>	0,90 - 0,96 g/cm <sup>3</sup> (20 °C)
<b>Solubility(ies)</b>	

Product name: RENOLIT AX 2

<b>Solubility in Water:</b>	Insoluble in water
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	Not applicable for mixtures
<b>Auto-ignition temperature:</b>	not determined
<b>Decomposition Temperature:</b>	not determined
<b>Kinematic viscosity:</b>	not determined
<b>Particle characteristics:</b>	Study technically not feasible
<b>9.2 Other information</b>	No data available.

#### SECTION 10: Stability and reactivity

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

#### SECTION 11: Toxicological information

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

###### Acute toxicity

###### Oral

**Product:** Not classified for acute toxicity based on available data.

###### Specified substance(s)

Thiocarbamate	LD 50 (Rat): 16.000 mg/kg
ZnDTP	LD 50 (Rat): 4.358 mg/kg
Ca sulfonate	LD 50 (Rat): > 5.000 mg/kg
Tolutriazole derivative	LD 50 (Rat, Female, Male): 3.313 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)
Ca sulfonate	LD 50 (Rabbit): > 5.000 mg/kg

**Product name:** RENOLIT AX 2

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**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s)**

Ca sulfonate LC 50 (Rat, 4 h): > 5 mg/l Dust and mist

**Skin Corrosion/Irritation:**

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

**Specified substance(s)**

ZnDTP (Rabbit):  
None.

Tolutriazole derivative (Rabbit):  
Irritating.

**Serious Eye Damage/Eye Irritation:**

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

**Specified substance(s)**

ZnDTP (Rabbit):  
Slightly irritating.

Tolutriazole derivative OECD 405 (Rabbit):  
Not irritant.

**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)**

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

Ca sulfonate (Guinea Pig)  
May cause sensitization by skin contact.

Tolutriazole derivative , OECD 406-1 (Guinea Pig)  
sensitizing

**Germ Cell Mutagenicity**

**Product:** 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.

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**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.

**SECTION 12: Ecological information**

**Acute toxicity**

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

**Fish**

**Specified substance(s)**

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

Ca sulfonate LC 50 (Fish, 96 h): > 101 mg/l (OECD 203)

Tolutriazole derivative LC 50 (Fish, 96 h): 1,3 mg/l (OECD 203)

**Aquatic Invertebrates**

**Specified substance(s)**

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

Ca sulfonate EC 50 (Water Flea, 48 h): > 1.001 mg/l (OECD 202)

Tolutriazole derivative EC 50 (Water Flea, 48 h): 2,05 mg/l (OECD 202)

**Chronic ToxicityProduct:** Based on available data, the classification criteria are not 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

**Toxicity to Aquatic Plants**

**Specified substance(s)**

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

Ca sulfonate EC 50 (Alga, 72 h): > 101 mg/l (OECD 201)

Tolutriazole derivative EC 50 (Alga, 72 h): 0,976 mg/l (OECD 201)

**12.2 Persistence and Degradability**

**Biodegradation**



## Product name: RENOLIT AX 2

<b>Product:</b>	Not applicable for mixtures
<b>Specified substance(s)</b> ZnDTP	5 % (28 d, OECD 301B) Not readily degradable.
Tolutriazole derivative	Not readily degradable.

### 12.3 Bioaccumulative potential

<b>Product:</b>	Not applicable for mixtures
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### 12.4 Mobility in soil:

<b>Product:</b>	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

<b>Product:</b>	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:

No data available.

### Water Hazard Class (WGK):

WGK 2: significantly water-endangering.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

<b>General information:</b>	Dispose in accordance with all applicable regulations.
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<b>Disposal methods:</b>	Do not empty into drains; dispose of this material and its container in a safe way. When storing used products, ensure that the waste categories and mixing instructions are observed.
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## 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:	—

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**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. Ozone Depleters, Annex I to Regulation 2024/590 on Substances that Deplete the Ozone Layer:**  
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.

**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.

**Product name:** RENOLIT AX 2

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**Wording of the H-statements in section 2 and 3**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

**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:**

17.04.2025

**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.

**Abbreviations and acronyms:**

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; EIGA - European Industrial Gases Association; 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

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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