

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: MARINE RENOLIT FLM 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

EUH208: Contains Thiadiazole derivative. May produce an allergic reaction.

EUH210: Safety data sheet available on request.

Product name: MARINE RENOLIT FLM 2

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.

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
Amine aromatic , alkylated	EINECS: 270-128-1	0,10% - <1,00%	01-2119491299-23	
DEA	EINECS: 203-868-0	0,10% - <1,00%	01-2119488930-28	
Thiadiazole derivative	EINECS: 276-763-0	0,10% - <1,00%	01-2120119820-64	

* 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
Amine aromatic , alkylated	EINECS: 270-128-1	CLP: Repr. 2;H361f, Aquatic Chronic 3;H412
DEA	EINECS: 203-868-0	CLP: Eye Dam. 1;H318, STOT RE 2;H373, Acute Tox. 4;H302, Skin Irrit. 2;H315, Repr. 2;H361fd
Thiadiazole derivative	EINECS: 276-763-0	CLP: Skin Sens. 1B;H317, Aquatic Chronic 2;H411

CLP: Regulation No. 1272/2008.

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.

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| 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

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| 5.1 Extinguishing media | |
| Suitable extinguishing media: | CO ₂ , 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. |

SECTION 6: Accidental release measures

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| 6.1 Personal precautions, protective equipment and emergency procedures: | Not required. |
| 6.2 Environmental Precautions: | 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. |
| 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. |

Product name: MARINE RENOLIT FLM 2

SECTION 7: Handling and storage:

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| 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): | No data available. |
| Storage Class: | 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

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:

Safety glasses (EN 166) recommended during refilling. Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield. Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield.

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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

9.1 Information on basic physical and chemical properties

Appearance

Physical state:

solid

Form:

Paste

Color:

Black

Odor:

Characteristic

pH:

substance/mixture is non-soluble (in water)

Drop Point:

180 °C (IP 396)

Boiling Point:

Not applicable

Flash Point:

Not applicable

Flammability (solid, gas):

not determined

Explosion Limit - Upper (%):

Not applicable for mixtures

Explosion 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

Auto-ignition temperature:

not determined

Decomposition Temperature:

not determined

NLGI:

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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.

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)

Amine aromatic , alkylated LD 50 (Rat): > 5.000 mg/kg (OECD 401)

DEA LD 50 (Rat): 1.600 mg/kg

Dermal

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

Specified substance(s)

DEA LD 50 (Rabbit): 13.079 mg/kg

Inhalation

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

Skin Corrosion/Irritation:

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

Serious Eye Damage/Eye Irritation:

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

Specified substance(s)

Amine aromatic , alkylated OECD 405 (Rabbit):
Not irritant.

Product name: MARINE RENOLIT FLM 2**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)

Amine aromatic , alkylated

No sensitizing effect (guinea pig); OECD 406

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.

Specified substance(s)

Amine aromatic , alkylated

oral (Rat, OECD 421), Suspected of damaging fertility.

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.

SECTION 12: Ecological information**Acute toxicity**

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

Fish**Specified substance(s)**

Amine aromatic , alkylated

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

DEA

LC 50 (Fish, 96 h): 1.460 mg/l

Aquatic Invertebrates**Specified substance(s)**

Amine aromatic , alkylated

EC 50 (Daphnia magna): 51 mg/l (OECD 202)

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DEA EC 50 (Water Flea, 48 h): 55 mg/l

Chronic ToxicityProduct: Based on available data, the classification criteria are not met.**Aquatic Invertebrates****Specified substance(s)**

DEA EC 10 (Water Flea, 21 d): 1,05 mg/l

Toxicity to Aquatic Plants**Specified substance(s)**

Amine aromatic , alkylated EC 50 (72 h): > 100 mg/l (OECD 201)

12.2 Persistence and Degradability**Biodegradation****Product:** Not applicable for mixtures**Specified substance(s)**

Amine aromatic , alkylated Not readily degradable.

DEA 93 % (28 d, OECD 301F) Readily biodegradable

12.3 Bioaccumulative potential**Product:** Not applicable for mixtures**12.4 Mobility in soil:****Product:** Not applicable for mixtures**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.**12.7 Other adverse effects:** No data available.**Water Hazard Class (WGK):** WGK 1: slightly water-endangering.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****General information:** Dispose in accordance with all applicable regulations.

Product name: MARINE RENOLIT FLM 2

Disposal methods: 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.

European Waste Codes

12 01 12*: spent waxes and fats

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 2024/590/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: none

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

Regulation (EC) No. 649/2012 Import and export of dangerous chemicals: none

National Regulations

Water Hazard Class (WGK): WGK 1: slightly water-endangering.

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

DIRECTIVE 2012/18/EU (SEVESO III) on the control of major-accident hazards involving dangerous substances

Not applicable

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.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H361f	Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
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: 13.03.2025

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.

Product name: MARINE RENOLIT FLM 2

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; AllC - 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 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