

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

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

1.1 Product identifier

Product name : perma Extreme pressure grease SF02

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

Use of the Sub-stance/Mixture : Grease

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company : perma-tec GmbH & Co. KG
Hammelburger Straße 21
97717 EUERDORF
GERMANY
Tel: +49 9704 609-0
Fax: +49 9704 609-50

E-mail address of person responsible for the SDS : : msds@perma-tec.com

National contact : H-T-L perma UK
6 – 9 The Square
Stockley Park
UXBRIDGE
MIDDLESEX UB11 1FW
UNITED KINGDOM

1.4 Emergency telephone number

Emergency telephone number : +49 9704 609-99 (Mo-Th 8:00-16:30, Fr 08:00-12:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Additional Labelling

EUH210 Safety data sheet available on request.
EUH208 Contains 5,5'-dithiodi-1,3,4-thiadiazole-2(3H)-thione. May produce an allergic reaction.

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 : Mineral oil.
lithium soap
solid lubricant

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration limits M-Factor Notes	Concentration (% w/w)
5,5'-dithiodi-1,3,4-thiadiazole-2(3H)-thione	72676-55-2 276-763-0 01-2120119820-64-XXXX	Skin Sens.1B; H317 Aquatic Chronic2; H411		>= 0.1 - < 0.25
Substances with a workplace exposure limit :				
molybdenum disulphide	1317-33-5 215-263-9			>= 1 - < 10

For explanation of abbreviations see section 16.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

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 breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
Wash off with soap and 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.
Do not induce vomiting without medical advice.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.
- Risks : None known.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No information available.
-

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

- Specific hazards during fire-fighting : Fire may cause evolution of:
Carbon oxides
Metal oxides
Sulphur 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. In the case of respirable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version	Revision Date:	Date of last issue: 22.06.2018	Print Date:
2.4	05.04.2019	Date of first issue: 30.10.2013	05.04.2019

dust and/or fumes, use self-contained breathing apparatus.
Exposure to decomposition products may be a hazard to health.

Further information : Standard procedure for chemical fires.

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 : Try to prevent the material from entering drains or water courses.
Local authorities should be advised if significant spillages cannot be contained.

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 : For personal protection see section 8.
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
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.

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

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

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
molybdenum di-sulphide	1317-33-5	TWA	10 mg/m ³ (Molybdenum)	en EH40 (2005-04-06)
		STEL	20 mg/m ³ (Molybdenum)	en EH40 (2005-04-06)

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Residual oils (petroleum), hydrotreated; Baseoil -unspecified	Workers	Inhalation	Long-term systemic effects	2.7 mg/m ³
	Workers	Inhalation	Acute systemic effects	5.6 mg/m ³
	Workers	Skin contact	Long-term systemic effects	1 mg/kg

8.2 Exposure controls

Engineering measures

none

Personal protective equipment

Eye protection : Tightly fitting safety goggles

Hand protection

Remarks : Protective gloves The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. 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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

each case.

- Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : paste
- Colour : grey
- Odour : characteristic
- Odour Threshold : No data available
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- pH : No data available
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : Not applicable
- Evaporation rate : No data available
- Flammability (solid, gas) : Combustible Solids
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapour pressure : < 0.001 hPa (20 °C)
- Relative vapour density : No data available
- Density : 0.90 g/cm³
(20 °C)
- Bulk density : No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

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 : No data available
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.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

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

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

Acute dermal toxicity : Symptoms: Redness, Local irritation

Components:

5,5'-dithiodi-1,3,4-thiadiazole-2(3H)-thione:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

molybdenum disulphide:

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

Acute dermal toxicity : LD50 (Rat): > 16,000 mg/kg

Skin corrosion/irritation

Product:

Remarks: This information is not available.

Components:

5,5'-dithiodi-1,3,4-thiadiazole-2(3H)-thione:

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

molybdenum disulphide:

Assessment: No skin irritation
Result: No skin irritation

Serious eye damage/eye irritation

Product:

Remarks: This information is not available.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

Components:

5,5'-dithiodi-1,3,4-thiadiazole-2(3H)-thione:

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

molybdenum disulphide:

Assessment: No eye irritation
Result: No eye irritation

Respiratory or skin sensitisation

Product:

Remarks: This information is not available.

Components:

5,5'-dithiodi-1,3,4-thiadiazole-2(3H)-thione:

Assessment: The product is a skin sensitiser, sub-category 1B.
Result: The product is a skin sensitiser, sub-category 1B.

molybdenum disulphide:

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

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Components:

molybdenum disulphide:

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

Carcinogenicity

Product:

Remarks: No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

Components:

molybdenum disulphide:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

STOT - single exposure

Components:

molybdenum disulphide:

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

STOT - repeated exposure

Components:

molybdenum disulphide:

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

Product:

This information is not available.

Further information

Product:

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

Components:

molybdenum disulphide:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

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: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae : Remarks: No data available

Toxicity to microorganisms :
Remarks: No data available

Components:

5,5'-dithiodi-1,3,4-thiadiazole-2(3H)-thione:

Toxicity to fish : LC50 (Fish): > 454 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (algae): 20 mg/l
Exposure time: 72 h

molybdenum disulphide:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 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

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removabil- : Remarks: No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

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Components:

5,5'-dithiodi-1,3,4-thiadiazole-2(3H)-thione:

Biodegradability : Result: Not rapidly biodegradable
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

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:

Additional ecological information : No information on ecology is available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.

Waste codes should be assigned by the user based on the

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version	Revision Date:	Date of last issue: 22.06.2018	Print Date:
2.4	05.04.2019	Date of first issue: 30.10.2013	05.04.2019

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:

SECTION 14: Transport information

14.1 UN number

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

14.3 Transport hazard class(es)

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

14.6 Special precautions for user

No special precautions required.

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

Remarks : Not applicable for product as supplied.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

SECTION 15: Regulatory information

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

- REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
- REACH - List of substances subject to authorisation (Annex XIV) : Not applicable
- Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable
- Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable
- Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable
- REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : 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.
Not applicable
- Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 0.05 %
Remarks: VOC content excluding water

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

- H317 : May cause an allergic skin reaction.
H411 : Toxic to aquatic life with long lasting effects.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version 2.4 Revision Date: 05.04.2019 Date of last issue: 22.06.2018
Date of first issue: 30.10.2013

Print Date:
05.04.2019

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; 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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - en



perma Extreme pressure grease SF02

Version	Revision	Date:	Date of last issue: 22.06.2018
2.4		05.04.2019	Date of first issue: 30.10.2013

Print Date:
05.04.2019

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