

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

### 1.1 Product identifier

**heavy duty grease**  
**Article number: 03514**

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

#### 1.2.1 Relevant uses

Lubricant

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

**Company** Ferdinand Bilstein GmbH + Co. KG  
Wilhelmstr. 47  
58256 Ennepetal / GERMANY  
Phone +49 2333 911-0  
Fax +49 2333 911-444  
Homepage [www.febi.com](http://www.febi.com)  
E-mail [info@febi.com](mailto:info@febi.com)

#### Address enquiries to

**Technical information** [info@febi.com](mailto:info@febi.com)

**Safety Data Sheet** [info@febi.com](mailto:info@febi.com)

### 1.4 Emergency telephone number

**Advisory body** +49 (0)89-19240 (24h) (English)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

No classification.

### 2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

**Hazard pictograms** none

**Signal word** none

**Hazard statements** none

**Precautionary statements** none

**Special labelling** EUH210 Safety data sheet available on request.

### 2.3 Other hazards

**Human health dangers** 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.

**Environmental hazards** Does not contain any PBT or vPvB substances.  
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.

**Other hazards** No particular hazards known.

## SECTION 3: Composition / Information on ingredients

### 3.1 Substances

not applicable

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### 3.2 Mixtures

The product is a mixture.

Range [%]	Substance
1 - < 2,5	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts
	CAS: 85940-28-9, EINECS/ELINCS: 288-917-4, Reg-No.: 01-2119521201-61-XXXX
	GHS/CLP: Eye Irrit. 2: H319 - Skin Irrit. 2: H315 - Aquatic Chronic 2: H411
0,1 - < 1	Sulfonic acids, petroleum, calcium salts
	CAS: 61789-86-4, EINECS/ELINCS: 263-093-9, Reg-No.: 01-2119488992-18-XXXX
	GHS/CLP: Skin Sens. 1B: H317
SCL [%]: >= 10: Skin Sens. 1B: H317	

#### Comment on component parts

For full text of H-statements: see SECTION 16.  
Contains less than 3% w/w DMSO-extract (only for mineral oils)

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information	Change soaked clothing.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Seek medical advice immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink.

### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.  
Forward this sheet to your doctor.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

Suitable extinguishing media	Foam, dry powder, water spray jet, carbon dioxide.
Extinguishing media that must not be used	Full water jet.

### 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.  
Carbon monoxide (CO)  
Not combusted hydrocarbons.

### 5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.  
Use self-contained breathing apparatus.  
Cool containers at risk with water spray jet.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Some risk of slipping due to spillage of product.  
Forms slippery surfaces with water.

## **6.2 Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

## **6.3 Methods and material for containment and cleaning up**

Take up mechanically.

Dispose of absorbed material in accordance within the regulations.

## **6.4 Reference to other sections**

See SECTION 8+13

# **SECTION 7: Handling and storage**

## **7.1 Precautions for safe handling**

Use only in well-ventilated areas.

Do not eat, drink or smoke when using this product.

Use barrier skin cream.

Take off contaminated clothing and wash before reuse.

Contaminated work clothing should not be allowed out of the workplace.

Cloths contaminated with product should not be kept in trouser pockets.

Wash hands before breaks and after work.

## **7.2 Conditions for safe storage, including any incompatibilities**

Keep only in original container.

Prevent penetration into the ground.

Do not store together with food and animal food/diet.

Keep container in a well-ventilated place.

Keep container tightly closed.

## **7.3 Specific end use(s)**

See product use, SECTION 1.2

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

#### Ingredients with occupational exposure limits to be monitored (UK)

not relevant

#### Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

not relevant

#### DNEL

Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
Industrial, inhalative, Long-term - systemic effects, 11,75 mg/m <sup>3</sup>
Industrial, dermal, Long-term - systemic effects, 3,33 mg/kg bw/d
Industrial, dermal, Long-term - local effects, 1,03 mg/cm <sup>2</sup>
general population, inhalative, Long-term - systemic effects, 2,9 mg/m <sup>3</sup>
general population, dermal, Long-term - systemic effects, 1,667 mg/kg bw/day
general population, dermal, Long-term - local effects, 0,513 mg/cm <sup>2</sup>
general population, oral, Long-term - systemic effects, 0,833 mg/kg bw/day
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
Industrial, inhalative, Long-term - systemic effects, 6,6 mg/m <sup>3</sup>
Industrial, dermal, Long-term - systemic effects, 9,6 mg/kg bw/d
general population, inhalative, Long-term - systemic effects, 1,67 mg/m <sup>3</sup>
general population, dermal, Long-term - systemic effects, 4,8 mg/kg bw/d
general population, oral, Long-term - systemic effects, 0,19 mg/kg bw/d

#### PNEC

Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
freshwater, 1 mg/l (AF=1000)
seawater, 1 mg/l (AF=10000)
sewage treatment plants (STP), 1000 mg/l (AF=10)
sediment (freshwater), 226 000 000 mg/kg dw
sediment (seawater), 226 000 000 mg/kg dw
soil, 271 000 000 mg/kg dw
oral (food), 16,667 mg/kg food
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
freshwater, 0,002 mg/l (AF=1000)
seawater, 0,0002 mg/l (AF=10000)
sewage treatment plants (STP), 100 mg/l (AF=100)
sediment (freshwater), 19,3 mg/kg dw
sediment (seawater), 1,93 mg/kg dw
soil, 15,7 mg/kg dw

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## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Safety glasses. (EN 166:2001)
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. > 0,4 mm: Nitrile rubber, >120 min (EN 374-1/-2/-3). > 0,4 mm: Neoprene, >480 min (EN 374-1/-2/-3).
<b>Skin protection</b>	light protective clothing
<b>Other</b>	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Avoid contact with eyes and skin.
<b>Respiratory protection</b>	No special measures necessary.
<b>Thermal hazards</b>	none
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Physical state</b>	solid
<b>Form</b>	pasty
<b>Color</b>	green
<b>Odor</b>	characteristic
<b>Odour threshold</b>	No information available.
<b>pH-value</b>	No information available.
<b>pH-value [1%]</b>	No information available.
<b>Boiling point or initial boiling point and boiling range [°C]</b>	not applicable
<b>Flash point [°C]</b>	not applicable
<b>Flammability</b>	No information available.
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	No information available.
<b>Density [g/cm³]</b>	0,86 (25°C / 77,0°F)
<b>Relative density</b>	No information available.
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	insoluble
<b>Solubility other solvents</b>	No information available.
<b>Partition coefficient n-octanol/water (log value)</b>	not applicable
<b>Kinematic viscosity</b>	NLGI 000
<b>Relative vapour density</b>	No information available.
<b>Melting point [°C]</b>	No information available.
<b>Auto-ignition temperature [°C]</b>	not applicable
<b>Decomposition temperature [°C]</b>	No information available.
<b>Particle characteristics</b>	not applicable

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

## **10.2 Chemical stability**

Stable under normal ambient conditions (ambient temperature).

## **10.3 Possibility of hazardous reactions**

Reactions with acids, alkalies and oxidizing agents.

## **10.4 Conditions to avoid**

Strong heating.

## **10.5 Incompatible materials**

Strong oxidizing agent.

Strong acids.

Strong basic compounds

## **10.6 Hazardous decomposition products**

No hazardous decomposition products known.

## SECTION 11: Toxicological information

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

#### Acute oral toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
LD50, oral, Rat, >5000 mg/kg bw
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
LD50, oral, Rat, 3080 mg/kg bw

#### Acute dermal toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
LD50, dermal, Rabbit, > 5000 mg/kg bw
>5000 mg/kg bw
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
LD50, dermal, Rabbit, 20000 mg/kg bw

#### Acute inhalational toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
LC50, inhalative, Rat, >1.9 mg/L air
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
LC50, inhalative, Rat, 2.3 mg/L air, 4h

#### Serious eye damage/irritation

Toxicological data of complete product are not available.  
No classification.  
Calculation method

Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
Eye, no adverse effect observed
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
Causes serious eye damage.

#### Skin corrosion/irritation

Toxicological data of complete product are not available.  
No classification.  
Calculation method

Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
dermal, no adverse effect observed
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
irritant

#### Respiratory or skin sensitisation

Based on the available information, the classification criteria are not fulfilled.

Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4

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dermal, sensitising
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
dermal, non-sensitizing

**Specific target organ toxicity — single exposure** Based on the available information, the classification criteria are not fulfilled.

**Specific target organ toxicity — repeated exposure** Based on the available information, the classification criteria are not fulfilled.

Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
NOAEL, oral, Rat, 500 mg/kg bw/day, adverse effect observed
NOAEL, dermal, Rat, 1000 mg/kg bw/day, no adverse effect observed
NOAEC, inhalative, Rat, 881,58 mg/m³, no adverse effect observed
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
NOAEL, oral, Rat, 125 mg/kg bw/day

**Mutagenicity** Based on the available information, the classification criteria are not fulfilled.

**Reproduction toxicity** Based on the available information, the classification criteria are not fulfilled.

**Carcinogenicity** Based on the available information, the classification criteria are not fulfilled.

**Aspiration hazard** Based on the available information, the classification criteria are not fulfilled.

**General remarks**

Toxicological data of complete product are not available.  
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists.

## 11.2 Information on other hazards

**11.2.1 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.

**11.2.2 Other information** none

## SECTION 12: Ecological information

Product
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## 12.1 Toxicity

Based on the available information, the classification criteria are not fulfilled.
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Substance
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
NOEC, (72h), Pseudokirchneriella subcapitata, 1000 mg/l
LL50, (96h), Fish, > 10 000 mg/l
EC0, (48h), Daphnia magna, >1000 mg/l
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts, CAS: 85940-28-9
EC50, (48h), Invertebrates, 5.4 mg/L
EC50, (96h), Algae, 2 - 2.1 mg/L
NOEC, (21d), Invertebrates, 400 - 800 µg/L
LL50, (96h), Oncorhynchus mykiss, 4,5 mg/l





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12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.
Substance	
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4	
(28d), 8,6 %	

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 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.

12.7 Other adverse effects

Ecological data of complete product are not available.  
Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product	In according to RoHS! Coordinate disposal with the authorities if necessary.
Waste no. (recommended)	120112* spent waxes and fats
Contaminated packaging	Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.
Waste no. (recommended)	150110* packaging containing residues of or contaminated by hazardous substances 150102 150104

## SECTION 14: Transport information

### 14.1 UN number or ID number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

### 14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

**14.6 Special precautions for user**

Relevant information under SECTION 6 to 8.

**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**

<b>EEC-REGULATIONS</b>	2008/98/EG (2000/532/EC ); 2010/75/EU; 2004/42/EG; (EG) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEG ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148; (EU) 2019/1021, (EU) 2023/707
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains $\geq 0.1\%$ of substances with the following restrictions. 75 According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is not subject to any restrictions.
<b>TRANSPORT-REGULATIONS</b>	ADR (2025); IMDG-Code (2025, 42. Amdt.); IATA-DGR (2025)
<b>NATIONAL REGULATIONS (UK):</b>	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	not applicable
- VOC (2010/75/CE)	0%

**15.2 Chemical safety assessment**

For this product a chemical safety assessment has not been carried out.

**SECTION 16: Other information**

**16.1 Hazard statements (SECTION 3)**

H317 May cause an allergic skin reaction.  
  
H411 Toxic to aquatic life with long lasting effects.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

## 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ATE = acute toxicity estimate  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
EL50 = Median effective loading  
ELINCS = European List of Notified Chemical Substances  
EmS = Emergency Schedules  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
IVIS = In vitro irritation score  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
LC0 = lethal concentration, 0%  
LOAEL = lowest-observed-adverse-effect level  
LL50 = Median lethal loading  
LQ = Limited Quantities  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
NOAEL = No Observed Adverse Effect Level  
NOEC = No Observed Effect Concentration  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
STP = Sewage Treatment Plant  
TLV®/TWA = Threshold limit value – time-weighted average  
TLV®STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

## 16.3 Other information

Classification procedure

Modified position

2.3