

# Pulsarlube PL3 (High Speed Grease)

## 1. MANUFACTURER INFORMATION

**1) Product Name** : : Pulsarlube PL3 (High Speed Grease)

**2) Recommended use of the chemical and restrictions on use**

- A. Product description : An electrochemical automatic single point lubricator  
 B. Restrictions on use : Not available except the intended use of the product

**3) Supplier's details**

Pulsarlube GmbH	Telephone Number for Information:
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Germany	sales.eu@pulsarlube.com

Emergency telephone number +49 (69) 8700-766-62/-63

## 2. HAZARDS IDENTIFICATION

**1) Classification of the substance/mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

**Serious eye damage/eye irritation, Category 2** H319

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects  
 Causes serious eye irritation.

**2) Label elements**

Labelling according to Regulation (EC) No 1272/2008 [CLP]

**Hazard pictograms (CLP)** :



GHS07

**Signal word (CLP)**

: Warning

**Hazard statements (CLP)**

: H319 - Causes serious eye irritation.

**Precautionary statements (CLP)**

: P264 - Wash hands, forearms and face thoroughly after handling.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 - If eye irritation persists: Get medical advice/attention.  
 EUH-statements : EUH208 - Contains (61790-48-5) (KLUEBER\_35). May produce an allergic reaction.

**EUH-statements**

**PSDS (Product Safety Data Sheet)**
**3) Other hazards**

Component	
Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt (4259-15-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

**3. COMPOSITION/INFORMATION ON INGREDIENTS**
**1) Substances**

Not applicable

**2) Mixtures**

Name	Product Identifier	%	Classification according to Regulation(EC) No. 1272/2008 [CLP]
Sulfonic acids, petroleum, barium salts	CAS-No.: 61790-48-5 EC-No.: 263-140-3	0.1 – 5	Skin Sens. 1B, H317
Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt	CAS-No.: 4259-15-8 EC-No.: 224-235-5	0.1 – 5	Eye Dam. 1, H318 Aquatic Chronic 2, H411 (M=0)

Specific concentration limits:		
Name	Product Identifier	%
Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt	CAS-No.: 4259-15-8 EC-No.: 224-235-5	( 50 <C ≤ 100) Eye Dam. 1, H318

Full text of H- and EUH-statements: see section 16

**4. FIRST AID MEASURES**
**1) Description of first aid measures**

- First-aid measures after inhalation** : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact** : Wash skin with plenty of water.
- First-aid measures after 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.
- First-aid measures after ingestion** : Call a poison center or a doctor if you feel unwell.

**2) Most important symptoms and effects, both acute and delayed**

- Symptoms/effects after eye contact** : Eye irritation.

**3) Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

## PSDS (Product Safety Data Sheet)

### 5. FIREFIGHTING MEASURES

#### 1) Extinguishing media

**Suitable extinguishing media** : Water spray. Dry powder. Foam.

#### 2) Special hazards arising from the substance or mixture

**Hazardous decomposition products in case of fire** : Toxic fumes may be released.

#### 3) Advice for firefighters

**Protection during firefighting** : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### 6. ACCIDENTAL RELEASE MEASURES

#### 1) Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

**Emergency procedures** : Ventilate spillage area. Avoid contact with skin and eyes.

For emergency responders

**Protective equipment** : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls / personal protection".

#### 2) Environmental precautions

Avoid release to the environment

#### 3) Methods and material for containment and cleaning up

**Methods for cleaning up** : Mechanically recover the product.

**Other information** : Dispose of materials or solid residues at an authorized site.

#### 4) Reference to other sections

For further information refer to section 13.

### 7. HANDLING AND STORAGE

#### 1) Precautions for safe handling

**Precautions for safe handling** : Ensure good ventilation of the work station. Wear personal protective equipment.

**Hygiene measures** : Do not eat, drink or smoke when using this product.  
Always wash hands after handling the product.

#### 2) Conditions for safe storage, including any incompatibilities

**Storage conditions** : Store in a well-ventilated place. Keep cool.

#### 3) Specific end use(s)

No additional information available

**PSDS (Product Safety Data Sheet)****8. EXPOSURE CONTROLS/PERSONAL PROTECTION****1) Control parameters****National occupational exposure and biological limit values**

No additional information available

**Recommended monitoring procedures**

No additional information available

**Air contaminants formed**

No additional information available

**DNEL and PNEC**

No additional information available

**Control banding**

No additional information available

**2) Exposure controls****Appropriate engineering controls****Appropriate engineering controls:**

Ensure good ventilation of the work station.

**Personal protection equipment****Personal protective equipment symbol(s):****Eye and face protection****Eye protection:**

Safety glasses

**Skin protection****Skin and body protection:**

Wear suitable protective clothing

**Hand protection**

Protective gloves

**Respiratory protection****Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

**Thermal hazards**

No additional information available

**Environmental exposure controls****Environmental exposure controls:**

Avoid release to the environment

**PSDS (Product Safety Data Sheet)**
**9. PHYSICAL AND CHEMICAL PROPERTIES**
**Information on basic physical and chemical properties**

<b>Physical state</b>	: Solid
<b>Colour</b>	: brown.
<b>Appearance</b>	: Paste.
<b>Odour</b>	: Characteristic.
<b>Odour threshold</b>	: Not available
<b>Melting point</b>	: Not available
<b>Freezing point</b>	: Not applicable
<b>Boiling point</b>	: Not available
<b>Flammability</b>	: Non flammable.
<b>Explosive limits</b>	: Not applicable
<b>Lower explosive limit (LEL)</b>	: Not applicable
<b>Upper explosive limit (UEL)</b>	: Not applicable
<b>Flash point</b>	: Not applicable
<b>Auto-ignition temperature</b>	: Not applicable
<b>Decomposition temperature</b>	: Not available
<b>pH</b>	: Not available
<b>pH solution</b>	: Not available
<b>Viscosity, kinematic</b>	: Not applicable
<b>Solubility</b>	: Insoluble.
<b>Partition coefficient n-octanol/water (Log Kow)</b>	: Not available
<b>Vapour pressure</b>	: Not available
<b>Vapour pressure at 50 °C</b>	: Not available
<b>Density</b>	: Not available
<b>Relative density</b>	: Approx. 0.89 @ 20°C
<b>Relative vapour density at 20 °C</b>	: Not applicable
<b>Particle size</b>	: Not available
<b>Particle size distribution</b>	: Not available
<b>Particle shape</b>	: Not available
<b>Particle aspect ratio</b>	: Not available
<b>Particle aggregation state</b>	: Not available
<b>Particle agglomeration state</b>	: Not available
<b>Particle specific surface area</b>	: Not available
<b>Particle dustiness</b>	: Not available

**Other information**
**Information with regard to physical hazard classes**

No additional information available

**Other safety characteristics**

No additional information available

**10. STABILITY AND REACTIVITY**
**1) Reactivity**

The product is non-reactive under normal conditions of use, storage and transport

**2) Chemical stability**

Stable under normal conditions.

## PSDS (Product Safety Data Sheet)

### 3) Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 4) Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 5) Incompatible materials

No additional information available

### 6) Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. TOXICOLOGICAL INFORMATION

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

<b>Acute toxicity (oral)</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Acute toxicity (dermal)</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Acute toxicity (inhalation)</b>	: Not classified (Based on available data, the classification criteria are not met)

Sulfonic acids, petroleum, barium salts (61790-48-5)	
<b>LD50 oral rat</b>	> 2000 mg/kg
<b>LD50 dermal rabbit</b>	> 4000 mg/kg bodyweight Animal: rabbit, Guideline: other:40 CFR, Section 163.81-2, Federal Register, August 22, 1978
<b>LC50 Inhalation - Rat</b>	> 1.9 mg/l air Animal: rat, Guideline: EPA OPP 81-3 (Acute inhalation toxicity)

Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt (4259-15-8)	
<b>LD50 oral rat</b>	3100 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1800 - 5100
<b>LD50 dermal rabbit</b>	> 5000 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

<b>Skin corrosion/irritation</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Serious eye damage/irritation</b>	: Causes serious eye irritation.
<b>Respiratory or skin sensitisation</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Germ cell mutagenicity</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Carcinogenicity</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Reproductive toxicity</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>STOT-single exposure</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>STOT-repeated exposure</b>	: Not classified (Based on available data, the classification criteria are not met)

**PSDS (Product Safety Data Sheet)**

Sulfonic acids, petroleum, barium salts (61790-48-5)	
<b>NOAEL (oral, rat, 90 days)</b>	500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
<b>NOAEL (dermal, rat/rabbit, 90 days)</b>	> 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt (4259-15-8)	
<b>NOAEL (oral, rat, 90 days)</b>	125 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

**Aspiration hazard** : Not classified  
(Based on available data, the classification criteria are not met)

PL3	
<b>Viscosity, kinematic</b>	Not applicable

## 12. ECOLOGICAL INFORMATION

### 1) Toxicity

**Ecology - general** : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

**Hazardous to the aquatic environment, short-term (acute)** : Not classified  
(Based on available data, the classification criteria are not met)

**Hazardous to the aquatic environment, long-term (chronic)** : Not classified  
(Based on available data, the classification criteria are not met)

Not rapidly degradable

Sulfonic acids, petroleum, barium salts (61790-48-5)	
<b>LC50 - Fish [1]</b>	0.00000159 mg/l Source: Ecological Structure Activity Relationships
<b>EC50 72h - Algae [1]</b>	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
<b>EC50 96h - Algae [1]</b>	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt (4259-15-8)	
<b>LC50 - Fish [1]</b>	46 mg/l Test organisms (species): Cyprinodon variegatus
<b>LC50 - Fish [2]</b>	1 – 5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
<b>EC50 - Crustacea [1]</b>	1 – 1.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>EC50 96h - Algae [1]</b>	1 – 5 mg/l (Species: Pseudokirchneriella subcapitata)

### 2) Persistence and degradability

Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt (4259-15-8)	
<b>Persistence and degradability</b>	Not readily biodegradable in water.

### 3) Bioaccumulative potential

Sulfonic acids, petroleum, barium salts (61790-48-5)	
<b>Partition coefficient n-octanol/water (Log Pow)</b>	11.05 Source: Quantitative Structure Activity Relation

**PSDS (Product Safety Data Sheet)**
**Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt (4259-15-8)**

<b>Partition coefficient n-octanol/water (Log Pow)</b>	2.86 (at 20 °C)
<b>Bioaccumulative potential</b>	Low potential for bioaccumulation (Log Kow < 4).

**4) Mobility in soil**
**Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt (4259-15-8)**

<b>Surface tension</b>	63.7 mN/m (21 °C, 1.25 g/l, OECD 115: Surface Tension of Aqueous Solutions)
<b>Ecology - soil</b>	Low potential for adsorption in soil.

**5) Results of PBT and vPvB assessment**

Component	
<b>Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt (4259-15-8)</b>	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

**6) Other adverse effects**

No additional information available

**7) Other adverse effects**

No additional information available

**13. DISPOSAL CONSIDERATIONS**
**1) Waste treatment methods**

**Waste treatment methods** : Dispose of contents/container in accordance with licensed collector's sorting instructions.

**14. TRANSPORT INFORMATION**
**In accordance with ADR / IMDG / IATA / ADN / RID**

ADR	IMDG	IATA	ADN	RID
1) UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
2) UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
3) Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
4) Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
5) Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

**6) Special precautions for user**
**Overland transport**

Not applicable

**Transport by sea**

Not applicable



## PSDS (Product Safety Data Sheet)

### Air transport

Not applicable

### Inland waterway transport

Not applicable

### Rail transport

Not applicable

### 7) Maritime transport in bulk according to IMO instruments

Not applicable

## 15. REGULATORY INFORMATION

### 1) Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

#### National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

#### Germany

##### Employment restrictions

: Observe restrictions according Act on the Protection of Working Mothers (MuSchG)  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)

##### Water hazard class (WGK)

: WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

##### Hazardous Incident Ordinance (12. BImSchV)

: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

##### Storage class (LGK, TRGS 510)

: LGK 13 - Non-combustible solids

##### Joint storage table

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

##### Joint storage not permitted for

: LGK 1, LGK 6.2, LGK 7

##### Joint storage with restrictions permitted for

: LGK 4.1A, LGK 5.1C

##### Joint storage permitted

: LGK 2A, LGK 2B, LGK 3, LGK 4.1B, LGK 4.2, LGK 4.3, LGK 5.1A, LGK 5.1B, LGK

## PSDS (Product Safety Data Sheet)

for	5.2, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13
<b>Netherlands</b>	
<b>ABM category</b>	: Z(1) - non biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/ reprotoxicity/bioaccumulative potential/ toxicity or persistence)
<b>SZW-lijst van kankerverwekkende stoffen</b>	: None of the components are listed
<b>SZW-lijst van reprotoxische stoffen – Borstvoeding</b>	: None of the components are listed
<b>SZW-lijst van reprotoxische stoffen – Vruchtbaarheid</b>	: None of the components are listed
<b>SZW-lijst van reprotoxische stoffen – Ontwikkeling</b>	: None of the components are listed
<b>Switzerland</b>	
<b>Storage class (LK)</b>	: LK 11/13 - Solids

### Chemical safety assessment

No chemical safety assessment has been carried out

## 16. OTHER INFORMATION

1) Abbreviations and acronyms:	
<b>ADN</b>	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
<b>ADR</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>ATE</b>	Acute Toxicity Estimate
<b>BCF</b>	Bioconcentration factor
<b>BLV</b>	Biological limit value
<b>BOD</b>	Biochemical oxygen demand (BOD)
<b>COD</b>	Chemical oxygen demand (COD)
<b>DMEL</b>	Derived Minimal Effect level
<b>DNEL</b>	Derived-No Effect Level
<b>EC-No.</b>	European Community number
<b>EC50</b>	Median effective concentration
<b>EN</b>	European Standard
<b>IARC</b>	International Agency for Research on Cancer
<b>IATA</b>	International Air Transport Association
<b>IMDG</b>	International Maritime Dangerous Goods
<b>LC50</b>	Median lethal concentration
<b>LD50</b>	Median lethal dose
<b>LOAEL</b>	Lowest Observed Adverse Effect Level
<b>NOAEC</b>	No-Observed Adverse Effect Concentration
<b>NOAEL</b>	No-Observed Adverse Effect Level
<b>NOEC</b>	No-Observed Effect Concentration
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OEL</b>	Occupational Exposure Limit
<b>PBT</b>	Persistent Bioaccumulative Toxic
<b>PNEC</b>	Predicted No-Effect Concentration
<b>RID</b>	Regulations concerning the International Carriage of Dangerous Goods by Rail
<b>SDS</b>	Safety Data Sheet

**PSDS (Product Safety Data Sheet)**

<b>STP</b>	Sewage treatment plant
<b>ThOD</b>	Theoretical oxygen demand (ThOD)
<b>TLM</b>	Median Tolerance Limit
<b>VOC</b>	Volatile Organic Compounds
<b>CAS-No.</b>	Chemical Abstract Service number
<b>N.O.S.</b>	Not Otherwise Specified
<b>vPvB</b>	Very Persistent and Very Bioaccumulative
<b>ED</b>	Endocrine disrupting properties

**Full text of H- and EUH-statements:**

<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment — Chronic Hazard, Category 2
<b>EUH208</b>	Contains (61790-48-5) (KLUEBER_35). May produce an allergic reaction.
<b>Eye Dam. 1</b>	Serious eye damage/eye irritation, Category 1
<b>H317</b>	May cause an allergic skin reaction.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>Skin Sens. 1B</b>	Skin sensitisation, category 1B

The classification complies with : ATP 12

2) The first creation date : 2015.02.11

3) The number of times, and the final revision date : Revision times 06

The final revision date : 2022.01.12

**Further information**

*Pulsarlube has prepared copyrighted Product Safety Datasheets to provide information on the different Pulsarlube automatic grease lubricator systems. As defined in above the text Pulsarlube automatic grease lubricator are manufactured articles, which do not result in exposure to a hazardous chemical under normal conditions of use. The information and recommendations set forth herein are made in good faith, for information only, and are believed to be accurate as of the date of preparation. However, Pulsarlube USA, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.*