

Pulsarlube PL8 (Biodegradable grease)

1. MANUFACTURER INFORMATION

- 1) Product Name : Pulsarlube PL8 (Biodegradable 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
Silostrasse 31b,
65929 Frankfurt am Main,
Germany

Telephone Number for Information:
Tel.: +49 69 8700766 - 62 / - 63
Fax : +49 69 8700766 - 69
sales.eu@pulsarlube.com

Emergency telephone number : +49 69 8700766 - 62 / - 63

2. HAZARDS IDENTIFICATION

- 1) Classification of the substance or mixture
The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies
Classification according to Regulation (EC) No 1272/2008 as amended
- 2) Label elements including precautionary statements
Label according to Regulation (EC) No. 1272/2008 as amended

- Pictogram



- Signal word : Warning
- Hazard/Risk Statement :
 - H315 : Causes skin irritation.
 - H318 : Causes serious eye damage
 - H319 : Causes serious eye irritation.
 - H411 : Toxic to aquatic life with long lasting effects
- Precautionary Statement
<Prevention>
 - P280 : Wear eye protection/face protection

PSDS (Product Safety Data Sheet)

<Response>

P305 + : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present
 P351 + and easy to do. Continue rinsing
 P338
 P337 + : If eye irritation persists: Get medical advice/attention.
 P313

<Storage>

Store away from incompatible materials

<Disposal>

Dispose of waste and residues in accordance with local authority requirements.

3) Other Hazard Risk which do not included in the classification criteria
 Not assigned.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No/ EC NO	Content (%)	REACH Registration No
Phosphorodithioic acid, 0,0-di-C1-14-alkyl esters, zinc salts	68649-42-3 272-028-3	1 - < 3%	-

Ingredients 1,2 DMSO Extract (mineral oil only), IP-346: < 3 %wt

4. FIRST AID MEASURES

General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

In case of skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists

If inhaled

Move to fresh air. Call a physician if symptoms develop or persist. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

In case of eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

If swallowed

Rinse mouth. If swallowed, do NOT induce vomiting. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed

5. FIRE FIGHTING MEASURES

General fire hazards

No unusual fire or explosion hazards noted

PSDS (Product Safety Data Sheet)

Extinguishing media

Suitable extinguishing media

Foam. Dry chemicals. Carbon dioxide (CO₂). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

See also section 10.

Advice for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

In case of fire and/or explosion do not breathe fumes. Cool containers exposed to heat with water spray and remove container, if no risk is involved

Specific methods

In the event of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS

Environmental precautions

Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Scrub the area with detergent and water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Reference to other sections

See Section 8 for personal protective equipment. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for safe handling

To avoid thermal decomposition, do not overheat. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Wash hands after handling. Handle in accordance with good industrial hygiene and safety practices. Adequate ventilation should be provided so that exposure limits are not exceeded.

Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Store in closed original container in a dry place. Store away from incompatible materials (see Section 10 of the SDS).

PSDS (Product Safety Data Sheet)

Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
CALCIUM CARBONATE (CAS 471-34-1)	TWA	4 mg/m ³	Respirable.
		4 mg/m ³	Respirable dust.
		10 mg/m ³	Inhalable dust.
		10 mg/m ³	Inhalable

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no-effect level (DNEL)

Not available

Predicted no effect concentrations (PNECs)

Not available.

Exposure guidelines

Occupational Exposure Limits are not relevant to the current physical form of the product.

Exposure controls

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. 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. Ensure adequate ventilation, especially in confined areas. Provide eyewash station

Individual protection measures, such as personal protective equipment

General information

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

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

For prolonged or repeated skin contact use suitable protective gloves. Suitable gloves can be recommended by the glove supplier

Other Respiratory protection Thermal hazards

In case of insufficient ventilation, wear suitable respiratory equipment Wear appropriate thermal protective clothing, when necessary

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 and protective equipment to remove contaminants.

Environmental exposure controls

Environmental manager must be informed of all major releases.

PSDS (Product Safety Data Sheet)

9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance	Solid, Beige to Dark blonde.
b) Odour	Characteristic
c) Odour threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	> 250.0 °C (> 482.0 °F) Open cup
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapor pressure	no data available
l) Solubility	Insoluble in Water
m) Vapor density	no data available
n) Relative density	0.96 g/cm ³ @ 20°C
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Formula mass	no data available
t) Dropping point	> 165 °C (> 329 °F)

10. STABILITY AND REACTIVITY

Reactivity

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

Chemical stability

Material is stable under normal conditions.

Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use..

Conditions to avoid

Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.

Eliminate all sources of ignition

Incompatible materials

Strong oxidising agents

Hazardous decomposition products

At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition

PSDS (Product Safety Data Sheet)**11. TOXICOLOGICAL INFORMATION****Information on toxicological effects****Acute toxicity**

Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhoea.

Skin corrosion/irritation

Not classified.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory sensitisation

Not classified.

Skin sensitisation

Not classified.

Germ cell mutagenicity

Not classified.

Carcinogenicity

Not classified

Reproductive toxicity

Not classified

Specific target organ toxicity /single exposure

Not classified

Specific target organ toxicity - repeated exposure

Not classified

Aspiration hazard

Not classified

Mixture versus substance information

No information available

Other information

Not available.

12. ECOLOGICAL INFORMATION**Toxicity**

Not classified as an environmental hazard.

Persistence and degradability

> 80% of the mixture consists of ingredient(s) : Readily biodegradable. (OECD 301 B)

Bioaccumulative potential

No data available.

Partition coefficient n-octanol/water (log Kow)

Not available.

Bioconcentration factor (BCF)

Not available.

PSDS (Product Safety Data Sheet)

Mobility in soil

No data available.

Mobility in general

The product is immiscible with water and will spread on the water surface.

Results of PBT and vPvB assessment

Not available

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Residual waste

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code

12 01 12* Waste codes should be assigned by the user based on the application for which the product was used

Disposal methods/information

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with local/regional/national/international regulations

Special precautions

Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not regulated as dangerous goods.

IMDG: Not regulated as dangerous goods.

IATA: Not regulated as dangerous goods.

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no IMDG Marine pollute: no IATA: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

PSDS (Product Safety Data Sheet)**15. Regulatory information**

POPs Management Law

- Not applicable

Information of EU Classification

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

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended
Not listed

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
Not listed.

Restrictions on use

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended
Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended
Not listed.

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances
Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended
Not listed.

Directive 94/33/EC on the protection of young people at work, as amended
Not listed.

PSDS (Product Safety Data Sheet)

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Follow national regulation for work with chemical agents

Chemical safety assessment

No Chemical Safety Assessment has been carried out.

- U.S. Federal regulations
 - * OSHA PROCESS SAFETY (29CFR1910.119)
 - Not applicable
 - * CERCLA Section 103 (40CFR302.4)
 - Not applicable
 - * EPCRA Section 302 (40CFR355.30)
 - Not applicable
 - * EPCRA Section 304 (40CFR355.40)
 - Not applicable
 - * EPCRA Section 313 (40CFR372.65)
 - Not applicable
- Rotterdam Convention listed ingredients
 - Not applicable
- Stockholm Convention listed ingredients
 - Not applicable
- Montreal Protocol listed ingredients
 - Not applicable

16. OTHER INFORMATION

1) Source of the data

- (1) Chemical manufacturer's information : SDS(SAFETY DATA SHEET) Data
- (2) Chem Guide CAS DataBase
- (3) Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)
- (4) ECB-ESIS(European chemical Substances Information System)(<http://ecb.jrc.it/esis>)
- (5) ECOTOX Database, EPA(<http://cfpub.epa.gov/ecotox>)
- (6) IUCLID Chemical Data Sheet, EC-ECB
- (7) International Chemical Safety Cards(ICSC)(<http://www.nihs.go.jp/ICSC>)
- (8) TOXNET, U.S. National Library of Medicine(<http://toxnet.nlm.nih.gov>)
- (9) The Chemical Database, The Department of Chemistry at the University of Akron
(<http://ull.chemistry.uakron.edu/erd>)
- (10) Korea Information System for Chemical Safety, KISChem (<http://kischem.nier.go.kr>)
- (11) Chemical information system (<http://ncis.nier.go.kr>)
- (12) Grease Raw material manufacturer's information : PSDS(PRODUCT SAFETY DATA SHEET) Data

2) The first creation date : 2020.03.31

3) The number of times, and the final revision date : Revision times 00

The final revision date : 2020.03.31

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, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.