

Pulsarlube PL1 (Multipurpose Grease)

1. MANUFACTURER INFORMATION

- 1) Product Name : Pulsarlube PL1 (Multipurpose 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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Emergency telephone number +49 (0) 69-3399-7501

2. HAZARDS IDENTIFICATION

- 1) Hazard / Risk Classification
 - Skin corrosion/irritation : Category2,
 - Serious eye damage/irritation : Category2,
 - Specific target organ toxicity(Repeated exposure) : Category2,
(Classification according to Regulation (EC) No 1272/2008 [CLP])

- 2) Label elements including precautionary statements
(Labelling according to Regulation (EC) No 1272/2008 [CLP])
 - * Hazard Pictogram(s)



* Signal word : Warning

* Hazard/Risk Statement(s) :

H315 Causes skin irritation

H319 Causes serious eye irritation

H373 May cause damage to organs through prolonged or repeated exposure (Refer Section SDS 11)

* Precautionary Statement(s)

<Prevention>

P260 Do not breathe dust/fume/gas/vapours/spray.

P264 Wash... thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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<Response>

P302+P352 IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338 IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment.

P332+P313 If skin irritation occurs : Get medical advice/attention.

P337+P313 If eye irritation persists : Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

<Storage>

Not Applicable

<Disposal>

P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

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



3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Other name	CAS No	Content (%)
1. Distillates (petroleum), Hydrotreated heavy paraffinic	Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	30.0 ~ 40.0
2 Residual oils (petroleum), Hydrotreated	Residual oils (petroleum), Hydrotreated	64742-57-0	30.0 ~ 40.0
3. (Phosphorodithioic acid 0,0-bis(2-ethylhexyl) ester, zinc salt)	PHOSPHORODITHIOIC (Phosphorodithioic acid 0,0-bis(2-ethylhexyl) ester, zinc salt)	4259-15-8	0.1 ~ 1.0
4. (N-phenyl benzeneamine reaction products with 2,4,4-trimethylpentene)	Mixture of octylated diphenylamines	68411-46-1	0.1 ~ 1.0
5. Secret (S1)	Secret (S1)	Secret (S1)	Secret (S1)

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

4. FIRST AID MEASURES

General

- No general information.

Inhalation

- When exposed to large amounts of steam and mist, move to fresh air.

- Take specific treatment if needed.

- Get medical attention immediately. Get medical attention if adverse health effects persist or are severe

Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

- Laundering enough contaminated clothing before reuse.

- Get medical attention immediately.

- Go to the hospital immediately if symptoms (flare, irritate) occur.

- Wash thoroughly after handling.

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Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Get medical attention immediately.
- Go to the hospital immediately if symptoms (flare, irritate) occur.
- Remove contact lenses if worn

Ingestion

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.
- Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Use alcohol-resistant foam, dry chemical or carbon dioxide.
Avoid use of water jet for extinguishing

Special hazards arising from the substance or mixture

Not available

Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.
Cool containers with water until well after fire is out.
Keep unauthorized personnel out.
Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
Keep containers cool with water spray

Further information

None

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.
Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
No action shall be taken involving any personal risk or without suitable training

Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Inform the relevant authorities if the product has caused environmental pollution.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container.
Dispose of via a licensed waste disposal contractor.

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist and avoid formation of dust and aerosols.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Remove contaminated clothing and protective equipment before entering eating areas

Conditions for safe storage, including any incompatibilities

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Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
 Hygroscopic. air, light, and moisture sensitive. Store under inert gas.
 Store in accordance with local regulations

Specific end uses

- See Section 1 for information on

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

- European Union (EU) Commission Directive 2006/15/EC (IOELVs)
 - Not available
- European Union (EU) Commission Directive 2006/15/EC (IOELVs) – Skin
 - Not available
- DNEL/PNEC – Values
 - Not available

Appropriate engineering controls

- A system of local and/or general exhaust is recommended to keep employee exposures above the Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. The use of local exhaust ventilation is recommended to control emissions near the source.

Personal protective equipment

Hand protection

- Wear appropriate glove.

Eye protection

- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.

Respiratory Protection

- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- Respiratory protection is ranked in order from minimum to maximum.
- Consider warning properties before use.
- Dust, mist, fume-purifying respiratory protection
- Any air-purifying respirator with a corpuscle filter of high efficiency
- Any respiratory protection with a electromotion fan(for dust, mist, fume-purifying)
- Self-contained breathing apparatus with a corpuscle filter of high efficiency
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Skin protection

- Wear appropriate clothing.

Environmental exposure controls

- Do not let product enter drains. For ecological information refer to section 12.

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|--|--------------------|
| a) Appearance | Paste, Light Brown |
| 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 | no data available |

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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
m) Vapor density	no data available
n) Relative density	0.90 ~ 0.95 @ 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) Explosive properties	no data available
t) Oxidising properties	no data available

10. STABILITY AND REACTIVITY

Reactivity

- Not available.

Chemical Stability

- This material is stable under recommended storage and handling conditions.

Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

Incompatible materials

- Not available

Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure

- Respiratory tracts : Not available
- Oral : Not available
- Eye-Skin : Not available

- Acute toxic

* Oral

- Product (ATEmix) : 2000mg/kg < ATEmix <= 5000mg/kg
- [Secret] : LD50 > 5000 mg/kg Rat (SIDS)
- [Secret] : LD50 = 2500 mg/kg Rat
- [Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt] : LD50 3100 mg/kg Rat
- [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : LD50 > 5000 mg/kg Rat

* Dermal

- Product (ATEmix) : >5000mg/kg
- [Secret] : LD50 = 5520 mg/kg Rat
- [Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt] : LD50 > 5000 mg/kg Rabbit
- [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : LD50 > 2000 mg/kg

* Inhalation

- Product (ATEmix) : Not available
- [Secret] : LC50 > 12.6 mg/l 4 hr Rat (GLP, IUCLID)

- Skin corrosion/irritation**

- Causes skin irritation

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- Serious eye damage/irritation**
 - Causes serious eye irritation
- Respiratory sensitization**
 - Not available
- Skin sensitization**
 - Not available
- Carcinogenicity**
 - * **IARC**
 - no data available
 - * **OSHA**
 - no data available
 - * **ACGIH**
 - no data available
 - * **NTP**
 - no data available
 - * **EU CLP**
 - [Distillates (petroleum), hydrotreated heavy paraffinic] : Carc.1B
 - [Residual oils (petroleum), hydrotreated] : Carc.1B
- Germ cell mutagenicity**
 - no data available
- Reproductive toxicity**
 - no data available
- STOT-single exposure**
 - no data available
- STOT-repeated exposure**
 - May cause damage to organs through prolonged or repeated exposure (Refer Section SDS 11)
- Aspiration hazard**
 - no data available

12. ECOLOGICAL INFORMATION**Ecotoxicity**

- Fish**
 - [Secret] : LC50 = 25042.387 mg/l 96 hr (Estimate)
 - [Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt] : LC50 1 mg/l 96 hr Pimephales promelas (IUCLID)
 - [Secret] : LC50 8970000 mg/l 96 hr (Estimate)
 - [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : LC50 100 mg/L 96hr (ECHA)
- Invertebrate**
 - [Secret] : LC50 = 40.299 mg/l 48 hr (Estimate)
 - [Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt]: EC50 1 mg/l 48 hr Daphnia magna (OECD TG 202(GLP)) (IUCLID)
 - [Secret] : LC50 6470000 mg/l 48 hr (Estimate)
 - [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : EC50 51 mg/l 48 hr (ECHA)
- Algae**
 - [Secret] : EC50 = 11.563 mg/l 96 hr (Estimate)
 - [Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt] : EC50 1 mg/l 96 hr Selenastrum capricornutum(OECD TG 201(GLP)) (IUCLID)
 - [Secret] : EC50 2911000 mg/l 96 hr (Estimate)
 - [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : EC50 ≥ 100 mg/l 96 hr Selenastrum capricornutum(read across 101-67-7)

Persistence and degradability

- Persistence**
 - [Secret] : log Kow 2.60 (Estimate)
 - [Secret] : log Kow = -1.37 (NLM/HSDB)

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- [Phosphorodithioic acid O,O-bis(2-ethylhexyl) ester, zinc salt] : log Kow 2.86 (IUCLID)
- [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : log Kow 7.05 (>6 (HPVIS)) (Estimate) ~ 6
- Degradability
- Not available

Bioaccumulative potential

- Bioaccumulative potential
- [Secret] : BCF 56.23 (Estimate)
- [Secret] : BCF = 3 (NLM/HSDB)
- [Secret] : BCF = 3.162 (Estimate)
- [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : BCF 12520 (Estimate)
- Biodegradation
- [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : Under test conditions no biodegradation observed(100%)(ECHA), 9 (%) 28 day (read across 68442-68-2) (e-Chemportal : HPVIS)

Mobility in soil

- [N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene] : Koc 60460 (Estimates)

Results of PBT and vPvB assessment

- Not available

Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Offer surplus and non-recyclable solutions to a licensed disposal company.
Waste must be classified and labelled prior to recycling or disposal.
Contact a licensed professional waste disposal service to dispose of this material.

Above all, Dispose of in accordance with all applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

UN No. (ADR/RID/ADN)

- Not applicable

UN No. (IMDG CODE/IATA DGR)

- Not applicable

UN No. (ICAO)

- Not applicable

UN proper shipping name

- Not applicable

Transport hazard class(es)

ADR/RID/ADN Class

- Not available

ADR Label No.

- Not available

IMDG Class

- Not available

ICAO Class/Division

- Not available

Transport Labels

- Not available

Packing group

ADR/RID/ADN Packing group

PSDS (Product Safety Data Sheet)

- Not available

IMDG Packing group

- Not available

ICAO Packing group

- Not available

Environmental hazards

- Not available

Special precautions for user

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : Not available - EmS SPILLAGE SCHEDULE : Not available
- Air transport(IATA): Not subject to IATA regulations.

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

- Not applicable

15. REGULATORY INFORMATION

REGULATORY INFORMATION(Europe regulatory)

- REACH Restricted substance under REACH
 - Applicable (Distillates (petroleum), hydrotreated heavy paraffinic)
 - Applicable (Residual oils (petroleum), hydrotreated)
- REACH Substances subject to authorization under REACH
 - Not applicable
- REACH SVHC
 - Not applicable
- Europe PBT
 - Not applicable
- European Union (EU) Transport of Dangerous Goods by Road - Dangerous Goods List
 - Not applicable
- German water hazard class
 - WGK 1(Low hazard to waters)

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 : 2015.02.11

3) The number of times, and the final revision date : Revision times 04

The final revision date : 2018.07.09

PSDS (Product Safety Data Sheet)

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.