

Pulsarlube PL2 (Heavy Duty Grease)

1. MANUFACTURER INFORMATION

- 1) Product Name : Pulsarlube PL2 (Heavy duty 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:
Silostrasse 31b,	Tel.: +49 (0) 69-3399-7501
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Germany	info@pulsarlube.de

Emergency telephone number +49 (0) 69-3399-7501

2. HAZARDS IDENTIFICATION

- 1) Hazard / Risk Classification
 - Acute toxicity(Inhalation/ dust/ mist) : GHS category 4
 - May cause damage to organs : GHS category 3

2) Label elements including precautionary statements

- Pictogram



- Signal word : Warning
- Hazard/Risk Statement :
 - H302 Harmful if swallowed
 - H315 Causes skin irritation
 - H319 Causes serious eye irritation
 - H332 Harmful if inhaled
 - H335 May causes respiratory irritation
 - H360 May damage fertility or the unborn child
 - H370 Causes damage to organ
 - H372 Causes damage to organs through prolonged or repeated exposure
 - H412 Harmful to aquatic life with long lasting
- Precautionary Statement

PSDS (Product Safety Data Sheet)

<Prevention>

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understand.
- P260 Do not breathe dust/fume/gas/vapours/spray.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash... thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

<Response>

- P302+P352 IF ON SKIN : Immerse in cool water [or wrap in wet bandages].
- P304+P340 IF INHALED : Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 IF IN EYES : Rinse cautiously with water for several minutes. Remove contract lenses, if present and easy to do. Continue rinsing.
- P308+P313 IF exposed or concerned : Get medical advice/attention
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P314 Get medical advice/attention if you feel unwell.
- P321 Specific treatment (see ... on this label).
- P330 Rinse mouth.
- 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.

<Storage>

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.

<Disposal>

- P501 Dispose of contents/containers to ... in accordance with local/regional/national/international regulations (to be specified).

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

Material / NFPA	Health	Flammability	Reactivity
1) Distillates (petroleum),hydrotreated heavy paraffinic	1	1	0
2) Aluminum complex soap for lubricant	none	none	none
3) Di-tert-dodecyl polysulfides	1	1	0
4) N-phenyl nenzene amine reaction products with 2,4,4-trimethylpentene	0	1	0
5) Graphite purified	1	1	0
6) Proprietary (S1)	none	none	none

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	85.0 ~ 90.0
2) Aluminum complex soap for lubricant	Aluminum complex soapfor lubricant	-	5.0 ~ 10.0
3) Di-tert-dodecyl olysulfides	Polysulfides, di-tert-dodecyl	68425-15-0	3.0 ~ 5.0

4) N-phenyl nenzene amine reaction products with 2, 4,4-trimethylpentene	Mixture of octylateddiphenylamines	68411-46-1	0.5 ~ 1.0
5) Graphite purified	Graphite, natural	7782-42-5	1.0 ~ 2.0
6) Proprietary (S1)	Proprietary (S1)	Proprietary (S1)	Proprietary (S1)

4. FIRST AID MEASURES

General advice

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

In case of skin contact

Wash skin with soap and copious amounts of water. Consult a physician.
 Wash contaminated clothing thoroughly with water before removing it, or wear gloves
 Remove contaminated clothing and shoe
 Get medical attention if adverse health effects persist or are severe

If inhaled

Remove person to fresh air. If signs/symptoms continue and If not breathing, if breathing is irregular or if respiratory arrest occurs, get medical attention. Provide artificial respiration or oxygen by trained personnel as needed.

In case of eye contact

Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

If swallowed

DO NOT induce vomiting. If vomiting does occur, have victim lean forward to prevent aspiration. Rinse mouth with water. Seek medical attention. Never give anything by mouth to an unconscious individual.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

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

Special hazards arising from the substance or mixture

Carbon oxides, Potassium oxides, Hydrogen iodide (Based on the electrolyte)
 carbon dioxide, carbon monoxide, compounds metal oxide/oxides (Based on the Grease)

Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

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

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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

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

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

1) Distillates (petroleum), hydrotreated heavy paraffinic

- ACGIH : none
- biological limit values : none

2) Aluminum complex soap for lubricant

- ACGIH : none
- biological limit values : none

3) Di-tert-dodecyl polysulfides

- ACGIH : none
- biological limit values : none

4) N-PHENYL BENZENEAMINE REACTION PRODUCTS WITH 2,4,4-TRIMETHYL PENTENE

- ACGIH : none
- biological limit values : none

5) Graphite purified

- ACGIH : TWA 2 mg/m³
- biological limit values : none

6) Proprietary (S1)

- ACGIH : none
- biological limit values : none

Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants

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Personal protective equipment

Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary

Eye protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Hands protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance	Paste, Black
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
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	no data available
m) Vapor density	no data available
n) Relative density	0.88 ~ 0.93 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

10. STABILITY AND REACTIVITY

Reactivity

No specific test data related to reactivity available for this product or its ingredients

Chemical stability

The product is stable.

Possibility of hazardous reactions

The product is stable.

Conditions to avoid

no data available

Incompatible materials

no data available

Hazardous decomposition products

no data available

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

1) Distillates (petroleum),hydrotreated heavy paraffinic

- Acute toxic
- Oral : LD50 > 15000 mg/kg Rat
- Dermal : LD50 > 5000 mg/kg Rabbit
- inhalation : mist LC50 2.18 mg/l 4 hr Rat
- Skin corrosive/irritant : weak irritation
- Serious eye damage/eye irritation : irritation
- Respiratory sensitization : none
- Skin sensitization : no Skin sensitization
- Carcinogenicity : none
- Germ Cell Mutagenicity : none
- Reproductive toxicity : none
- Specific target organ toxicity (single exposure) : none
- Specific target organ toxicity (repeated exposure) : none
- Aspiration hazard : none

2) Aluminum complex soap for lubricant

- Acute toxic
- none
- none
- none
- Skin corrosive/irritant : none
- Serious eye damage/eye irritation : none
- Respiratory sensitization : none
- Skin sensitization : none
- Carcinogenicity : none
- Germ Cell Mutagenicity : none
- Reproductive toxicity : none
- Specific target organ toxicity (single exposure) : none

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Specific target organ toxicity (repeated exposure) : none

Aspiration hazard : none

3) Di-tert-dodecyl polysulfides

Acute toxic

- none

- none

- none

Skin corrosive/irritant : none

Serious eye damage/eye irritation : none

Respiratory sensitization : none

Skin sensitization : none

Carcinogenicity : none

Germ Cell Mutagenicity : none

Reproductive toxicity : none

Specific target organ toxicity (single exposure) : none

Specific target organ toxicity (repeated exposure) : none

Aspiration hazard : none

4) N-PHENYL BENZENEAMINE REACTION PRODUCTS WITH 2,4,4-TRIMETHYL PENTENE

Acute toxic

- LD50 > 5000 mg/kg Rat (bw OECD401)

- LD50 > 2000 mg/kg

- none

Skin corrosive/irritant : none

Serious eye damage/eye irritation : none

Respiratory sensitization : none

Skin sensitization : in Vivo Ginipig maximization test not. OECD 406 GLP

Carcinogenicity : none

Germ Cell Mutagenicity : none

Reproductive toxicity : Sprague-Dawley 43-54days, NOAEL=250mg/kg bw,

OECD 422, GLP read across 68442-68-2

Specific target organ toxicity (single exposure) : none

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Specific target organ toxicity (repeated exposure) : none

Aspiration hazard : none

5) Graphite purified

Acute toxic

- Oral : none

- Dermal : none

- Inhalation : none

Skin corrosive/irritant : none

Serious eye damage/eye irritation :none

Respiratory sensitization : none

Skin sensitization : none

Carcinogenicity : none

Germ Cell Mutagenicity : none

Reproductive toxicity : none

Specific target organ toxicity (single exposure) : none

Specific target organ toxicity (repeated exposure) : none

Aspiration hazard : none

6) Proprietary (S1)

Acute toxic

- none

- none

- none

Skin corrosive/irritant : none

Serious eye damage/eye irritation : none

Respiratory sensitization : none

Skin sensitization : none

Carcinogenicity : none

Germ Cell Mutagenicity : none

Reproductive toxicity : none

Specific target organ toxicity (single exposure) : none

Specific target organ toxicity (repeated exposure) : none

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Aspiration hazard : none

12. ECOLOGICAL INFORMATION**Toxicity**

Fish : LC50 > 5000 mg/l 96 hr Oncorhynchus mykiss

Crustacea : EC50 > 1000 mg/l 48 hr Daphnia magna

Algae : EC50 > 1000 mg/l 96 hr Scenedesmus subspicatus

Persistence and degradability

log Kow 3.9 ~ 6

Bioaccumulative potential

none

Mobility in soil

no data available

Results of PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product

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

14. TRANSPORT INFORMATION**UN number**

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not 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

Special precautions for user

no data available

PSDS (Product Safety Data Sheet)**15. REGULATORY INFORMATION****REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

Chemical Safety Assessment
no data available

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>)

2) The first creation date : 2015.02.11

3) The number of times, and the final revision date : Revision times 0

The final revision date : 2015.02.11

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.