

Pulsarlube PL7 (Low Temperature Grease)

1. MANUFACTURER INFORMATION

- 1) Product Name : Pulsarlube PL7 (Low Temperature 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

KLT Co., Ltd.	Telephone Number for Information:
34-12, Bangchon-ro 955beon-gil	Tel.: +82 (02) 2083-8488
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Republic of Korea	sales.asia@pulsarlube.com

Emergency telephone number +82 (02) 2083-8488

2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity : Category 2

GHS label elements

Hazard pictograms :



Signal word : Warning
Hazard statements : Suspected of damaging fertility

Precautionary statements :

Prevention : Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response : IF exposed or concerned: Get medical advice/ attention.

Storage : Store locked up.

Disposal : Dispose of contents/ container to an approved waste disposal plant.

PSDS (Product Safety Data Sheet)
Other hazards

None known.

- IARC** : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- OSHA** : No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
- NTP** : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
lithium 12-hydroxystearate	7620-77-1	5 - 10
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	1 - 5
Distillates (petroleum), hydrotreated light naphthenic; Baseoil — unspecified	64742-53-6	1 - 5
Amines, C12-14-alkyl, C6-10-alkyl phosphates	68603-55-4	1 - 5
Phenol, isobutyleneated, phosphate (3:1)	68937-40-6	0.1 - 1

Actual concentration is withheld as a trade secret

4. FIRST AID MEASURES

- If inhaled** : Move to fresh air.
Artificial respiration and/or oxygen may be necessary.
Seek medical advice.
- In case of skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Wash skin thoroughly with soap and water or use recognized skin cleanser.
Wash clothing before reuse.
Seek medical advice.
In the event of a known, or potential, high pressure injection injury, worker should obtain immediate medical evaluation.
- In case of eye contact** : Remove contact lenses.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed** : Rinse mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Never give anything by mouth to an unconscious person.
Seek medical advice.
- Most important symptoms and effects, both acute and delayed** : First aider needs to protect himself.
Suspected of damaging fertility.
- Notes to physician** : Treat symptomatically.

PSDS (Product Safety Data Sheet)
5. FIRE FIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: No information available.
Specific hazards during firefighting	: Cool closed containers exposed to fire with water spray.
Hazardous combustion products	: Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), sulphur oxides (SO _x), sulphur compounds (H ₂ S), alkyl mercaptans, sulfides, smoke and irritating vapours as products of incomplete combustion.
Further information	: Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions. Mark the contaminated area with signs and prevent access to unauthorized personnel. Only qualified personnel equipped with suitable protective equipment may intervene.
Environmental precautions	: Do not allow uncontrolled discharge of product into the environment.
Methods and materials for containment and cleaning up	: Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be used. Ensure adequate ventilation. Contact the proper local authorities.

7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: None known.
Advice on safe handling	: For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use.
Conditions for safe storage	: Store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.

PSDS (Product Safety Data Sheet)
8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
lithium 12-hydroxystearate	7620-77-1	TWA (Inhalable particulate matter)	10 mg/m ³	ACGIH
		TWA (Respirable particulate matter)	3 mg/m ³	ACGIH
Distillates (petroleum), hydrotreated light naphthenic; Baseoil — unspecified	64742-53-6	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m ³	ACGIH
		TWA (Mist)	5 mg/m ³	OSHA P0
		TWA (Mist)	5 mg/m ³	NIOSH REL
		ST (Mist)	10 mg/m ³	NIOSH REL

Engineering measures : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Filter type : organic vapour filter

Hand protection

Material : neoprene, nitrile, polyvinyl alcohol (PVA), Viton®.
Remarks : 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.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures : Wash contaminated clothing before re-use.

Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use.
Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

a) **Appearance** : Buttery, smooth, semi-solid

b) **Colour** : gold

c) **Odour** : Mild grease like.

d) **Odour Threshold** : No data available

e) **pH** : No data available

f) **Pour point** : -54 °C (-65 °F)
Base Fluid Blend

g) **Boiling point/boiling range** : No data available

PSDS (Product Safety Data Sheet)

h) Flash point	: 187 °C (369 °F) Method: Cleveland open cup Base Fluid Blend
i) Fire Point	: 203 °C (397 °F) Base Fluid Blend
j) Evaporation rate	: No data available
k) Flammability	: Remarks: Low fire hazard. This material must be heated before ignition will occur.
l) Auto-Ignition Temperature	: No data available
m) Upper explosion limit / Upper flammability limit	: No data available
n) Lower explosion limit / Lower flammability limit	: No data available
o) Vapour pressure	: No data available
p) Relative vapour density	: No data available
q) Relative density	: No data available
r) Density	: 0.8903 kg/l (59 °F / 15 °C)
s) Solubility(ies)	
Water solubility	: insoluble
t) Partition coefficient: n-octanol/water	: No data available
u) Viscosity	
Viscosity, kinematic	: 129.8 cSt (104 °F / 40 °C) Base Fluid Blend 15.6 cSt (212 °F / 100 °C) Base Fluid Blend
v) Explosive properties	: Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur. Stable under normal conditions.
Conditions to avoid	: No data available
Incompatible materials	: Reactive with oxidising agents, acids, alkalis and reducing agents.
Hazardous decomposition products	: May release CO _x , NO _x , SO _x , PO _x , H ₂ S, KO _x , SbO _x , sulfides, alkyl mercaptans, diphenylamine, alkenes, smoke and irritating vapours when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Eye contact Ingestion Inhalation Skin contact
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Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity	: Remarks: No data available
Acute inhalation toxicity	: Remarks: No data available
Acute dermal toxicity	: Remarks: No data available

PSDS (Product Safety Data Sheet)

Components:

Amines, C12-14-alkyl, C6-10-alkyl phosphates:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg,

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg,

Phenol, isobutylenated, phosphate (3:1):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg,

Acute inhalation toxicity : LC50 (Rat): > 200 mg/l

Exposure time: 1 h

Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg,

Skin corrosion/irritation

Not classified due to lack of data.

Product:

Remarks : No data available

Serious eye damage/eye irritation

Not classified due to lack of data.

Product:

Remarks : No data available

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Suspected of damaging fertility.

STOT - single exposure

Not classified due to lack of data.

STOT - repeated exposure

Not classified due to lack of data.

Aspiration toxicity

Not classified due to lack of data.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

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Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

: The product should not be allowed to enter drains, water courses or the soil.
Offer surplus and non-recyclable solutions to a licensed disposal company.
Waste must be classified and labelled prior to recycling or disposal.
Send to a licensed waste management company.
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

National Regulations

49 CFR

Not regulated as a dangerous good

15. REGULATORY INFORMATION

California Prop. 65

: This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.
For more information go to www.P65Warnings.ca.gov.
The chemicals include :
cadmium 7440-43-9

The components of this product are reported in the following inventories:

DSL

: On the inventory, or in compliance with the inventory

TSCA

: All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

IECSC

: On the inventory, or in compliance with the inventory

PSDS (Product Safety Data Sheet)**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:// http://kischem.nier.go.kr](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 05
The final revision date : 2024.05.31**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 USA, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.