Pulsarlube PL2

(High Performance Mining Grease)

1. MANUFACTURER INFORMATION

1) Product Name : Pulsarlube PL2 (High Performance Mining 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 USA, Inc.
1480 Howard Street,
Elk Grove Village,
IL 60007, USA

Telephone Number for Information:
Tel.: +1 (847) 593-5300
Fax : +1 (847) 593-5303
info@pulsarlube.com

Emergency telephone number +1 (847) 593-5300 (Monday – Friday, 08:30 am ~ 05:30 pm)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.
Hazard Statements : No known significant effects or critical hazards.

Precautionary statements

<Prevention>
Not applicable.

<Response>
Not applicable.

<Storage>
Not applicable.

<Disposal>
Not applicable.

Supplemental label elements : Avoid contact with eyes. May cause irritation to the eyes.
In case of contact with eyes, rinse immediately with plenty of water.
If irritation persists, get medical attention.

Hazards not otherwise classified : None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name	%	CAS number
Distillates (petroleum), solvent-dewaxed heavy paraffinic	20 - 30	64742-65-0
Distillates (petroleum), hydrotreated heavy naphthenic	10 - 20	64742-52-5
calcium carbonate	5 - 10	471-34-1
molybdenum disulphide	1 - 5	1317-33-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

Description of necessary first aid measures

Eye contact
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Get medical attention if symptoms occur.

Skin contact
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes.
Get medical attention if symptoms occur.

Ingestion
Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.
Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact
May cause slight transient irritation.

Inhalation
No known significant effects or critical hazards.

Skin contact
No known significant effects or critical hazards.

Ingestion
Ingestion may cause gastrointestinal irritation and diarrhea.

Over-exposure signs/symptoms

Eye contact
pain or irritation
watering
redness

Inhalation
No specific data.

Skin contact
No specific data.

Ingestion
No specific data.

See toxicological information (Section 11)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
phosphorus oxides
metal oxide/oxides

Special protective equipment for fire-fighters
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
No action shall be taken involving any personal risk or without suitable training.
Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.
Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Environmental precautions
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. 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.

Large spill
Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows.
Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13).
Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling
Put on appropriate personal protective equipment (see Section 8).

Storage
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
Keep container tightly closed and sealed until ready for use.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

Ingredient name	ACGIH	OSHA	Mexico	Canada
Distillates (petroleum), solvent-dewaxed heavy paraffinic	TWA: 5 mg/m³ 8hours. Form: Inhalable fraction	TWA: 5 mg/m³ 8hours.	TWA: 5 mg/m³ 8hours. Form: mist	
Distillates (petroleum), hydrotreated heavy naphthenic	TWA: 5 mg/m³ 8hours. Form: Inhalable fraction	TWA: 5 mg/m³ 8hours.	TWA: 5 mg/m³ 8hours. Form: mist	
calcium carbonate				
molybdenum disulphide	TWA:10 mg/m³ , (as Mo) 8 hours. Form: Inhalable fraction	TWA: 15 mg/m³ , (as Mo) 8 hours. Form: Total dust	TWA: 10 mg/m³ , (as Mo) 8 hours. Form: Inhalable fraction	TWA: 10 mg/m³ , (as Mo) 8 hours. Form: Inhalable particulate matter.
	TWA: 3 mg/m³ , (as Mo) 8 hours. Form: Respirable fraction		TWA: 3 mg/m³ , (as Mo) 8 hours. Form:Respirable fraction	TWA: 3 mg/m³ , (as Mo) 8 hours. Form: Respirable particulate matter.

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

Hygiene measures
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
Appropriate techniques should be used to remove potentially contaminated clothing.
Wash contaminated clothing before reusing.
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory
If a risk assessment indicates this is necessary, use a properly fitted, air-purifying or airfed respirator complying with an approved standard. 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.

Hands
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.

Eyes
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. Recommended: splash goggles

Skin
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.

Environmental exposure controls
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal protective equipment (Pictograms)

9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance	
- Physical state	: Liquid. [grease]
- Color	: Gray.
b) Odor	: Petroleum oil
c) Odor threshold	: Not available.
d) pH	: Not applicable.
e) Melting point	: Not available.
f) Boiling point	: Not available.
g) Flash point	: Closed cup: 255°C (491°F)
h) Burning time	: Not applicable.
i) Burning rate	: Not applicable.
j) Evaporation rate	: Not available.
k) Flammability (solid, gas)	: Not available.
l) Lower and upper explosive (flammable) limits	: Not available.
m) Vapor pressure	: Not available.
n) Vapor density	: Not available.
o) Relative density	: 1.43
p) Solubility	: Insoluble in the following materials: cold water and hot water.
q) Solubility in water	: Not available.
r) Partition coefficient: n- octanol/water	: Not applicable.
s) Auto-ignition temperature	: Not available.
t) Decomposition temperature	: Not available.
u) Viscosity	: Not available.
v) Elemental Phosphorus	: Not available.
w) VOC content	: 0.5 %

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
Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid
No specific data.

Incompatible materials
Not available.

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

Storage
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
Keep container tightly closed and sealed until ready for use.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Carcinogenicity
Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Distillates (petroleum), solvent-dewaxed heavy paraffinic	A4	-	-	-	-	-
Distillates (petroleum), hydrotreated heavy naphthenic	A4	-	-	-	-	-

Information on the likely routes of exposure
○ Dermal contact. Eye contact. Inhalation.

Potential acute health effects

Eye contact	May cause slight transient irritation.
Inhalation	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Ingestion	Ingestion may cause gastrointestinal irritation and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	pain or irritation watering redness
Inhalation	No specific data.
Skin contact	No specific data.
Ingestion	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	Not available.
Potential delayed effects	Not available.

Long term exposure

Potential immediate effects	Not available.
Potential delayed effects	Not available.

Potential chronic health effects
Not available.

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates
Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Not available.
○ Aquatic ecotoxicity
- Not available.

13. DISPOSAL CONSIDERATIONS

Waste disposal
The generation of waste should be avoided or minimized wherever possible.
Empty containers or liners may retain some product residues.
This material and its container must be disposed of in a safe way.
Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

IATA/IMDG/DOT/TDG
Please refer to the Bill of Lading/receiving documents for up to date shipping information.

15. REGULATORY INFORMATION

U.S. Federal regulations
○ TSCA 12(b) one-time export
- No products were found.
○ TSCA 12(b) annual export notification
- No products were found.
○ United States inventory (TSCA 8b)
- All components are listed or exempted.

EPA Registration Number
Not available.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)
Not listed

SARA 302/304
Composition/information on ingredients
No products were found.
SARA 304 RQ
Not applicable.

SARA 311/312

Classification

Not applicable.

State regulations

Massachusetts	The following components are listed: OIL MIST, MINERAL; OIL MIST, MINERAL; MOLYBDENUM DISULFIDE
New York	None of the components are listed.
New Jersey	None of the components are listed.
Pennsylvania	None of the components are listed.

California Prop. 65

None present.

Canada

Canadian lists

Canadian NPRI	The following components are listed: phosphorus (total)
Canada inventory	None of the components are listed.
Canadian PCP/DIN Number	Not available.

International regulations

International lists

Australia inventory (AIIC)	All components are listed or exempted.
Canada inventory	Not determined.
China inventory (IECSC)	All components are listed or exempted.
Europe inventory	All components are listed or exempted.
Japan inventory (CSCL):	Not determined.
Japan inventory (ISHL)	Not determined.
Korea inventory	All components are listed or exempted.
Mexico inventory	Not determined.
New Zealand Inventory of Chemicals (NZIoC)	All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.
Thailand inventory	Not determined.
Turkey inventory	Not determined.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are listed or exempted.
Vietnam inventory	All components are listed or exempted.

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)
(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 02

The final revision date : 2024.10.30

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.