Pulsarlube PL4 (Food Machinery Grease)

1. MANUFACTURER INFORMATION

1) Product Name : Pulsarlube PL4 (Food Machinery 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.
34-12, Bangchon-ro 955beon-gil,
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2. HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with paragraph (d) of §1910.1200

GHS Classification : Not classified as hazardous in accordance with paragraph (d) of §1910.1200

Hazard Statements : Not hazardous under OSHA regulations.

Unclassified Hazards (HNOC) : None Identified

Hazards not otherwise classified : Crystalline silica, when present in paint, grease, or a liquid coating, is not known to present a carcinogen hazard as it is bound within a matrix.
Risks associated with this chemical is attributable to dust (inhalation) exposures, and not to exposures from formulated products, like paint, grease, or a liquid coating, where the dust is embedded in the mixture and not available for exposure. Particles released from sanding and sawing mixtures, including paints, lacquers, and epoxy solids containing crystalline silica, have been characterized. Pure chemical particles are not released during these uses, but rather the particles remain embedded in the coating matrices.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common name and synonyms	CAS #	%
No Hazardous Ingredients			

Specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion

Inhalation	: This material does not present a hazard if inhaled. Remove individual to fresh air after an airborne exposure if any symptoms develop, as a precautionary measure.
Eye Contact	: Use an eye wash to remove a chemical from your eye regardless of the level of hazard. Flush the affected eye for at least twenty minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical advice after flushing.
Skin Contact	: Wash with soap and water. Get medical attention if irritation develops or persists.
Ingestion	: Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

Most important symptoms/effects, acute and delayed
See Section 11

Indication of immediate medical attention and special treatment needed, if necessary
Consult a physician. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire.
Unsuitable extinguishing media	: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire.

Hazardous combustion products	: Oxides of carbon, Calcium oxides, Sulfur oxides, Hydrocarbons

Special protective equipment and precautions for fire-fighters
Do not enter fire area without proper protection including self- contained breathing apparatus and full protective equipment. Use appropriate methods for the surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: No health effects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section VIII of this SDS
Methods and materials for containment and cleaning up	: Collect and discard in accordance with local, state, and national regulations.

7. HANDLING AND STORAGE

Precautions for safe handling	: Mildly irritating material. Avoid unnecessary exposure.

Conditions for safe storage, including any incompatibilities

Safe storage conditions	: Store in a cool dry place. Isolate from incompatible materials.
Materials to Avoid/Chemical Incompatibility	: Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available

Chemical component	OSHA PEL	ACGIH TLV	ACGIH STEL	IDLH
No data available				

Appropriate engineering controls : General room ventilation might be required to maintain operator comfort under normal conditions of use.

Individual protection measures, such as personal protective equipment

Respiratory Protection : Under normal conditions, a respirator is not normally required. If vapors, mists or aerosols are generated, wear a NIOSH approved respirator.

Eye protection : Wear safety glasses when handling this product.

Skin protection : Not normally considered a skin hazard. Where use of product can result in skin contact, practice good personal hygiene and wear a barrier cream and/or impervious surgical style gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves : Chemically resistant gloves

Other protective equipment : Wear safety glasses when handling this product.
Not normally considered a skin hazard. Where use of product can result in skin contact, practice good personal hygiene and wear a barrier cream and/or impervious surgical style gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

General hygiene conditions : No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color etc.)

- Physical state : Viscous Liquid

- Color : White to off-white

Odor : Mild
Petroleum Type

Odor Threshold : No data available

pH : No data available

Melting point/freezing point (°C)

- Melting Point (°C) : No data available

- Freezing point (°C) : No data available

Initial boiling point and boiling range (°C) : No data available

Flash Point : > 446 °F (230 °C)

Evaporation Rate : No data available

Flammability (solid, gas) : No data available

Upper/lower flammability or explosive limits

Upper flammability or explosive limits : No data available

Lower flammability or explosive limits : No data available

Vapor pressure : No data available

Vapor density : No data available

Relative density : 1.04

Solubility(ies)	: Negligible; 0-1%
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature (°C)	: No data available
Decomposition Temperature (°C)	: No data available
Viscosity	: Typical 300000 - 400000 cP
Volatiles, % by weight	: 0.8
VOC, Material, lb/gal	: 0
VOC, Material, grams/liter	: 0
VOC minus exempt solvents & water, g/L	: 0

10. STABILITY AND REACTIVITY

Reactivity	: Not expected to be reactive
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid (e.g., static discharge, shock, or vibration)	: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Contamination.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Under normal conditions of use & storage, decomposition and hazardous decomposition products are unlikely.

11. TOXICOLOGICAL INFORMATION

Description of the various toxicological (health) effects and the available data used to identify those effects

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)	: Inhalation, Skin contact, Eye contact
Symptoms related to the physical, chemical and toxicological characteristics	: No data available

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

Ingestion Toxicity	: Estimated to be > 5.0 g/kg; practically non-toxic
Skin Contact	: Can cause minor skin irritation, defatting, and dermatitis.
Inhalation Toxicity	: No data available
Eye Contact	: Can cause minor irritation, tearing and reddening.
Sensitization	: None known
Mutagenicity	: No data
Reproductive and Developmental Toxicity	: No data available
Carcinogenicity	: There are no carcinogenic ingredients present at or over 0.1%.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

Numerical measures of toxicity (such as acute toxicity estimates)

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
No data available			

Is the hazardous chemical listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has it been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA?

Chemical Name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen.			

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial, where available) : No data available

Ecological Toxicity Data

Chemical Name	CAS #	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
No data available				

Persistence and degradability : No data
Bioaccumulative potential : No data available
Mobility in soil : No data available
Other adverse effects (such as hazardous to the ozone layer) : No data available

13. DISPOSAL CONSIDERATIONS

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging
Spent or discarded material is not expected to be a hazardous waste.
Dispose of in accordance with Local and National regulations.

14. TRANSPORT INFORMATION

Domestic Ground in containers <= 119 GL	: Grease/Non-Hazardous
Domestic Ground in containers > 119 GL	: Grease/Non-Hazardous
Shipping name for Export, Air (IATA)	: Grease/Non-Hazardous
Shipping name for Export, Sea (IMDG)	: Grease/Non-Hazardous
Marine Pollutant?	: No

15. REGULATORY INFORMATION

International Inventory

Country(s) or region		On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
	Non-Domestic Substances List (NDSL)	No

China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Inventory	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or are unknown from listing on the inventory administered by the governing country(s).

Chemical Name	CAS #	Regulation	Percent
Crystalline silica	14808-60-7	Prop. 65 - Cancer	TRACE
Contains no components from California Prop. 65 - Developmental/Reproductive list		Prop. 65 - Developmental and/or Reproductive	
No CERCLA-listed chemicals in this product.		CERCLA	
No 313-listed chemicals in this product.		SARA 313	
No SARA 302 EHS-listed chemicals in this product.		SARA EHS	

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 : 17.03.2020
3) The number of times, and the final revision date : Revision times 06
The final revision date : 31.05.2024

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.