

Pulsarlube PL6 (Multipurpose Grease with MoS₂)

1. MANUFACTURER INFORMATION

1) Product Name : Pulsarlube PL6 (Multipurpose Grease with MoS₂)

Unique Formula Identifier (UFI) : UP00-U055-G007-Y4DV

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

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65929 Frankfurt am Main,

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2. HAZARDS IDENTIFICATION

1) Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Reproductive toxicity, Category 2

Long-term (chronic) aquatic hazard, Category 3

H361f: Suspected of damaging fertility

H412: Harmful to aquatic life with long lasting effects.

2) Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements H361f Suspected of damaging fertility.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements **Prevention:**
P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Precautionary statements

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Additional Labelling

EUH208

Contains Fatty acids, C18-unsatd., dimers, compds. with 4, 5-dihydro- 2-nortall-oil alkyl 1H-imidazole-1-ethanol and tall-oil fatty acids, Succinic Anhydride, Alkylation Products With C12-Rich Branched Olefins From Propene Oligomerisation, Hydrolyzed, Esterification Products with propylene oxide. May produce an allergic reaction.

3) Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1 270-128-1	Aquatic Chronic 3; H412 Repr. 2; H361f	3 - 10
Distillates (petroleum), hydrotreated light naphthenic; Baseoil — unspecified	64742-53-6 265-156-6 649-466-00-2	Asp. Tox. 1; H304 Acute Tox. 4; H332	1 - 10
Amines, C12-14-alkyl, C6-10-alkyl phosphates	68603-55-4 271-663-3	Skin irr. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 3; H412	1 - 2.5
Phenol, isobutyleneated, phosphate (3:1)	68937-40-6 273-065-8	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	0.25 - 1
Fatty acids, C18-unsatd., dimers, compds. with 4, 5-dihydro- 2-nortall-oil alkyl 1H-imidazole-1-ethanol and tall-oil fatty acids	948-074-1	Skin Sens. 1B; H317 Aquatic Chronic 3; H412	0.25 - 1
Succinic Anhydride, Alkylation Products With C12-Rich Branched Olefins From Propene Oligomerisation, Hydrolyzed, Esterification Products with propylene oxide	943-535-3	Eye Dam. 2; H319 Skin Sens. 1B; H317	0.1 - 1

For explanation of abbreviations see section 16.

4. FIRST AID MEASURES

Description of 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

Risks	: First aider needs to protect himself.
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Indication of any immediate medical attention and special treatment needed

Treatment	: Treat symptomatically.
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5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: No information available.

Special hazards arising from the substance or mixture

Specific hazards during firefighting	: Cool closed containers exposed to fire with water spray.
Hazardous combustion products	: Carbon oxides (CO, CO ₂), sulphur oxides (SO _x), hydrogen sulphide (H ₂ S), alkyl mercaptans, sulfides, smoke and irritat-ing vapours as products of incomplete combustion.

Advice for firefighters

Further information	: Prevent fire extinguishing water from contaminating surface water or the ground water system.
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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	: Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.
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Mark the contaminated area with signs and prevent access to unauthorized personnel.
Only qualified personnel equipped with suitable protective equipment may intervene.

Environmental precautions

Environmental precautions : Do not allow uncontrolled discharge of product into the environment.

Methods and material for containment and cleaning up

Methods for 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.

Reference to other sections

For personal protection see section 8.

7. HANDLING AND STORAGE

Precautions for safe handling

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.

Advice on protection against fire and explosion : None known.

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.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : 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.

Specific end use(s)

Specific use(s) : No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

8-hour TLV-TWA of 5 mg/m³ recommended by manufacturer based on ACGIH TLV for mineral oil mists. Consult local authorities for acceptable exposure limits.

Exposure controls
Engineering measures

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

Personal protective equipment

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

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.
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.
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 work-ing limits of the selected respirator.
Filter type	: organic vapour filter
Protective measures	: Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	: Buttery, smooth, semi-solid
Colour	: grey
Odour	: Mild grease like.
Odour Threshold	: No data available
Pour point	: -54 °C
	Base Fluid Blend
Boiling point/boiling range	: No data available
Flash point	: 187 °C
	Method: Cleveland open cup
	Base Fluid Blend
Fire Point	: 203 °C
	Base Fluid Blend
Auto-Ignition Temperature	: No data available
Evaporation rate	: No data available
Upper explosion limit /	: No data available
Upper flammability limit	
Lower explosion limit /	: No data available
Lower flammability limit	
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.8992 kg/l (15 °C)
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-	: No data available
octanol/water	
Viscosity	
Viscosity, kinematic	: 129.8 cSt (40 °C) Base Fluid Blend 15.6 cSt (100 °C) Base Fluid Blend
Flammability	: Low fire hazard. This material must be heated before ignition will occur.
Explosive properties	: Do not pressurize, cut, weld, braze, solder, drill, grind or ex-pose containers to heat or sources of ignition.

Other information

No data available

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 reactions : Hazardous polymerisation does not occur. Stable under normal conditions.

Conditions to avoid

Conditions to avoid : No data available

Incompatible materials

Materials to avoid : Reactive with oxidising agents, acids, alkalis and reducing agents.

Hazardous decomposition products

Hazardous decomposition products : May release COx, NOx, SOx, POx, H2S, KOx, SbOx, MoOx, alkyl mercaptans, sulfides, diphenylamine, alkenes, smoke and irritating vapours when heated to decomposition.

11. TOXICOLOGICAL INFORMATION
Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Acute toxicity
Product:

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

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, isobutyleneated, 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
Product:

Remarks : No data available

Serious eye damage/eye irritation
Product:

Remarks : No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity
Product:

Remarks

: All components listed in Annex VI to which Note L applies, and contained in the product, have been shown to contain less than 3% DMSO extractables as measured by IP346.

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Information on other hazards

Endocrine disrupting properties

Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12. ECOLOGICAL INFORMATION

Toxicity
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

Components:
Phenol, isobutylated, phosphate (3:1):

Toxicity to fish

: LC50 (Fish): 0.8 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates

: EC50 (Daphnia (water flea)): 0.202 mg/l

Exposure time: 48 h

Toxicity to fish

(Chronic toxicity)

: NOEC: 0.093 mg/l

Exposure time: 90 d

Species: Lepomis macrochirus (Bluegill sunfish)

Toxicity to daphnia and other aquatic invertebrates

(Chronic toxicity)

: NOEC: 0.0399 mg/l

Exposure time: 21 d

Species: Daphnia (water flea)

Persistence and degradability
Product:

Biodegradability

: Remarks: No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment
Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Endocrine disrupting properties
Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product : 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

UN number or ID number

 IMDG : Not regulated as a dangerous good
 IATA : Not regulated as a dangerous good

UN proper shipping name

 IMDG : Not regulated as a dangerous good
 IATA : Not regulated as a dangerous good

Transport hazard class(es)

 IMDG : Not regulated as a dangerous good
 IATA : Not regulated as a dangerous good

Packing group

 IMDG : Not regulated as a dangerous good
 IATA (Cargo) : Not regulated as a dangerous good
 IATA (Passenger) : Not regulated as a dangerous good

Environmental hazards

Not regulated as a dangerous good

Special precautions for user

Not applicable

Maritime transport in bulk according to IMO instruments

 Remarks : ADR: Not Regulated
 ADN: Not Regulated
 RID: Not Regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable
Water hazard class (Germany)	:WGK 2 obviously hazardous to water

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

Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.

16. OTHER INFORMATION

Full text of H-Statements

H304	: May be fatal if swallowed and enters airways.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H361f	: Suspected of damaging fertility.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Asp. Tox.	: Aspiration hazard
Eye Dam.	: Serious eye damage/eye irritation
Repr.	: Reproductive toxicity
Skin irr.	: Skin corrosion/irritation
Skin Sens.	: Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways;

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road;

AIIC - Australian Inventory of Industrial Chemicals;

ASTM - American Society for the Test-ing of Materials; bw - Body weight;

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008;

CMR - Carcinogen, Mutagen or Reproductive Toxicant;

DIN - Standard of the German Institute for Standardisation;

DSL - Domestic Substances List (Canada);

ECHA - European Chemicals Agency;

EC-Number - European Community number;

ECx - Concentration associated with x% response;

ELx - Loading rate associated with x% response;

EmS - Emergen-cy Schedule;

ENCS - Existing and New Chemical Substances (Japan);

ErCx - Concentration as-sociated with x% growth rate response;

GHS - Globally Harmonized System;

GLP - Good Laboratory Practice;
 IARC - International Agency for Research on Cancer;
 IATA - International Air Transport Association;
 IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
 IC50 - Half maximal inhibitory concentration;
 ICAO - International Civil Aviation Organization;
 IECSC - Inventory of Existing Chemical Substances in China;
 IMDG - International Maritime Dangerous Goods;
 IMO - International Maritime Organization;
 ISHL - Industrial Safety and Health Law (Japan);
 ISO - International Organisation for Standardization;
 KECI - Korea Existing Chemicals Inventory;
 LC50 - Lethal Concentration to 50 % of a test population;
 LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose);
 MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified;
 NO(A)EC - No Observed (Adverse) Effect Concentration;
 NO(A)EL - No Observed (Adverse) Effect Level;
 NOELR - No Observable Effect Loading Rate;
 NZIoC - New Zealand Inventory of Chemicals;
 OECD - Organization for Economic Co-operation and Development;
 OPPTS - Office of Chemical Safety and Pollution Prevention;
 PBT - Persistent, Bioaccumulative and Toxic substance;
 PICCS - Philippines Inventory of Chemicals and Chemical Substances;
 (Q)SAR - (Quantitative) Structure Activity Relationship;
 REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals;
 RID - Regulations concerning the International Carriage of Dangerous Goods by Rail;
 SADT - Self-Accelerating Decomposition Temperature;
 SDS - Safety Data Sheet; SVHC - Substance of Very High Concern;
 TCSI - Taiwan Chemical Substance Inventory;
 TECI - Thailand Existing Chemicals Inventory;
 TRGS - Technical Rule for Hazardous Substances;
 TSCA - Toxic Substances Control Act (United States);
 UN - United Nations;
 vPvB - Very Persistent and Very Bioaccumulative

Classification of the mixture:

Repr. 2	H361f
Aquatic Chronic 3	H412

Classification procedure:

Calculation method
Calculation method

The first creation date : 11.02.2015

The number of times, and the final revision date : Revision times 05

The final revision date : 07.07.2023

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.