



POLYTRON EP-2 LITHIUM COMPLEX GREASE (P / N PG1735)

Features:

- Outstanding wide temperature range grease
- Exceptionally low start-up resistance Outstanding water washout resistance
- Resists bearing leakage at higher temperatures
- Excellent shock load-carrying ability.
- Rust and corrosion inhibited to protect metal surfaces
- Excellent EP (extreme pressure) protection against high loads and wear.
- NLGI Certified GC-LB in wheel bearing and chassis applications.
- Recommended for all types of bearings including plain bearings, heavily loaded journal bearings, ball and roller bearings, needle bearings and couplings.
- Recommended for wheel bearings, fifth wheels, U-joints, steering linkage, and chassis.
- Suitable for use in electric motors meeting NEMA standards.
- Excellent grease for most sealed-for life bearings.

Polytron EP-2 Grease:

- Eliminates metal wear more than 90% and thus extends equipment service life by more than 300%.
- Extend greasing intervals by more than 3-4 times.
- Reduces maintenance & operational costs by more than 50% and down time by more than 90%

<i>Typical Specifications</i>	
Grade , NLGI	2
Penetration @ 25 °C (ASTM Worked)	265-295
Dropping Point, ASTM, °C	270
Soap Type	Lithium Complex
Color	Amber Brown
Appearance	Buttery
Timken OK Load, Kg	40
4 Ball Weld Load, ASTM D2596, Kg	800
Base Oil Viscosity:	
cSt @ 40 °C	227
cSt @ 100 °C	15.0
Rust Test, ASTM D1743	Pass
Water Washout Loss %	5
4 Ball Wear Test, ASTM D2266	
10 kg @ 1800 rpm, 75 °C, 1 hr	0.15
40 kg @ 1200 rpm, 75 °C, 1 hr	0.16



Material Safety Data Sheet. (MSDS)

Trade name: Polytron EP - 2 Lithium Complex Grease

Printing Date: January 30, 2018

Identification of substance

Product details

Product Description: Polytron Lithium Complex EP - 2 Grease Industrial Grade

Application of the substance: Automotive, machine and gear grease

Manufacturer / Supplier:

Eptech Corporation, USA

Informing department: Laboratory

Emergency information:

e-mail: agranimicrolubes@gmail.com, tech@agranimicrolubes.com

Composition / Data on components

Chemical characterization

Description: Dark brown, viscous and semi - viscous mixture of based chemicals and lithium complex thickener.

Ingredient	CAS Number	Concentration %	Index R-phrases
Canola oil	120962-03-0	<5	
Decanedioic Acid	000111-20-6	<3	
Fatty acids, vegetable oil, polymers with C>10 alpha - alkenes and lard oil, sulfurized	068153-70-8	<5	
Hydroxyl with saturated fatty acids	Proprietary or N/A	<5	
Lithium hydroxide monohydrate	001310-66-3	<3	
Oxidation inhibitor & detergent	Proprietary or N/A	<3	
Petroleum distillates, hydro treated heavy naphthenic	064742-52-5	<50	
Petroleum naphtha, light aromatic	064742-95-6	<20	
Polyol Ester of saturated fatty acids	Proprietary or N/A	<20	
Zinc Alkyldithiophospate	Proprietary or N/A	<20	
Mixture of 647-42547 & 647-42558 EINECS: 265-158-7 & 265-157-1 The mixture contains DMSO< 3%		30-45%	
1310-65-2 EINECS: 215-183-4	Lithium - Hydroxide,	5-7%	
106-14-9	12-Hydroxystearic	27-39%	
EINECS: 203-366-1	acid		
61788-90-7 EINECS: 263-016-9		15-20%	
Oxidation Inhibitor & Detergent		<20%	

**Hydro treated Distillate, Heavy Paraffin 64742-54-7**

(The petroleum base oils contained in this product have been highly refined by a variety of processes including severe hydro cracking/hydro processing to reduce aromatics and improve performance characteristics. All of the oils meet the IP-346 criteria of less than 3 percent PAH's and are not considered carcinogens by NTP, IARC, or OSHA.)

Hydro treated Distillate, Light Paraffin 647-42558

(The petroleum base oils contained in this product have been highly refined by a variety of processes including severe hydro cracking/hydro processing to reduce aromatics and improve performance characteristics. All of the oils meet the IP-346 criteria of less than 3 percent PAH's and are not considered carcinogens by NTP, IARC, or OSHA.) R38 Irritating to skin

Hazards identification**Hazard designation: Xi Irritant****Information pertaining to particular dangers for man and environment:**

R22 Harmful if swallowed R36 Irritating to eyes

Classification system:

The classification is in line with current EC lists. Refer to no. 11 and 12

First aid measures**After Inhalation:**

Remove exposed person to fresh air. If breathing is labored, administer oxygen and obtain immediate medical attention. If irritation persists, get medical attention.

After skin contact:

Wash immediately with soap and water. Remove soiled clothing. Get medical attention if irritation develops. Launder contaminated clothing.

After eye contact:

Rinse eyes for several minutes under running water with eyelids held open. Get medical attention if eye irritation develops or persists.

After Ingestion:

DO NOT INDUCE VOMITING. Rinse out mouth and then drink plenty of water. Seek immediate medical attention.

Fire fighting measures**Flash Point: greater than 200°C**

Slightly Combustible. May release flammable vapors when heated above flash point.

Extinguishing Media:

Carbon Dioxide, dry chemical, or foam. Avoid using water.

Protective equipment:

Refer to sections 8 and 16

General Advice:

Use water only for cooling container. Water may cause splattering, or transport the flame.

Accidental release measures**Personnel-related safety precautions:**

Evacuate all non-essential personnel. Personal Protective clothing must be worn, see PPE section 8 & 16. Remove sources of ignition.

Measures for environmental protection:

Prevent entry into sewers and waterways

Measures for cleaning/collecting:

Contain release, pick up free grease for recycling or disposal. Residual grease can be wiped with cloth soaked with degreaser

Additional information:

No dangerous materials are released.

Handling and storage**Handling:**

Avoid prolonged skin contact, breathing vapors, and contaminated clothing. Use with adequate ventilation. Wear recommended protective clothing. Practice good personal hygiene after handling. Empty containers retain material residue. Do not cut, weld, braze, solder or expose containers to other ignition sources.

Storage:

Store in closed containers of proper construction. Store away from ignition sources and in areas of good ventilation

Exposure controls and personal protection

Components with critical values that require monitoring at the workplace:

CAS-No.	Designation of material	Value	Unit
106-14-9 EINECS: 203-366-1		TLV (US) 5	mg/m ³
61788-90-7 EINECS: 263-016-9		TLV (US) 5	mg/m ³
Mixture of 647-42547 & 647-42558 EINECS: 265-158-7 & 265-157-1		TLV (US) 5	mg/m ³

Additional information:

Use in areas of adequate ventilation.

Personal protective equipment:
General protective and hygienic measures:

The usual precautionary measures should be adhered to in handling the chemicals.

Respiratory Protection:

Use approved respirator with organic vapor/mist cartridge is recommended if exposure limit is exceeded. Self-contained breathing apparatus is recommended for confined space entry.

Gloves:

Nitrile or neoprene gloves are recommended.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Wear safety glasses, goggles or face shield when working above eye level if there is danger of splashing.

Clothing:

Long sleeve shirt and apron when potential for skin contact. Wear neoprene or nitrile rubber boots when necessary to avoid contaminating shoes.

Physical and chemical properties:

Form: Viscous and semi viscous Color:

Brownish

Smell: Odorless

Specific Gravity: 0.901 - 0.919

pH-value (T=23 °C) Not determined

Melting point ; Not determined **Boiling**
point/ Boiling range: Not determined **Flash point (open cup):**
> 200^o
Self-in flammability: Not determined

Vapor density (T=20°C) Heavier than air

Vapor pressure (T=20°C) negligible

Water solubility (T=20°C) negligible

Evaporation Point: Higher than ether

Stability and reactivity
Stability:

Material is normally stable at ambient temperature and pressure.

Conditions to be avoided:

Do not store with strong oxidizing agents. Keep away from heat, sparks, open flame, or all sources of ignition.

Dangerous reactions: Will not occur.

Dangerous products of decomposition:

**Toxicological information****Primary irritant effect:****On the skin:**

Not expected to be a primary skin irritant. Prolonged or repetitive contact may cause irritation.

On the eye:

Not expected to cause eye irritation. Prolonged or repetitive contact may cause irritation.

Sensitization:

No sensitizing effect known.

Oral Toxicity:

Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea.

Carcinogenicity:

None.

Ecological information**General notes:**

Due to very negligible solubility of this product in water it is impossible to assess the effect of this product on marine and plant life, although large spills in water or soil are expected to have adverse effects on marine and plant life.

Disposal considerations**Recommendation:**

Recycle used grease. Do not contaminate used grease with solvents or other chemicals.

Unclean packaging:

Disposal must be made according to official regulations.

Transport information

Not classified as dangerous goods as per above regulations.

Stability and reactivity**Stability:**

Material is normally stable at ambient temperature and pressure.

Conditions to be avoided:

Do not store with strong oxidizing agents. Keep away from heat, sparks, open flame, or all sources of ignition.

Dangerous reactions: Will not occur.

Dangerous products of decomposition:

Carbon dioxide, carbon monoxide, hydrocarbons.

Not classified as dangerous goods as per above regulations.

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Other information

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Regulatory information**Designation according to EC-guidelines:**

This substance is not listed in the Annex I of Regulation (EC) No 689/2008.

EU REACH: Anex XVII

Not applicable

Hazard-determining components for labeling:

ELINCS: None

R-phrases:

None

S-phrases:

S 24 When handling, avoid contact with skin and eyes
S 25 In case of massive contact with eyes rinse immediately with plenty of water and seek medical advice.
S 37/39 When risk of splash, wear suitable gloves and wear safety glasses.