



MATERIAL SAFETY DATA SHEET
P-620 LITHIUM EP COMPLEX
(DROP POINT 280°C-300°C)

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Revised edition no : 01

Effective Date: 12-7-2014

1 Identification Of The Product And The Company

Chemical Name : Lithium EP Complex
Type of product chemical family : Petroleum Grease
Use : Lubrication
Producer : TLC-KOYA CHEMICAL MANUFACTURING SDN BHD
No. 22 & 23, Jalan Maju 1,
Cemerlang Industrial Estate,
81800. Ulu Tiram, Johor, Malaysia.
Tel: 607-8675798 Fax: 607-8675799
Website: www.koyachemicals.com Email: admin@koyachemicals.com
Emergency phone nr : See producer

2 Composition / Information On Ingredients

Product Composition : Thickened by lithium 12-hydroxystearate, it is made from deeply refined mineral oil with rust and oxidation inhibitors and other additives. It can substitute calcium and sodium base grease. Adaptable to different lubricating device. No.1 grease can be used in centralized lubricating system and No.2 and No.3 can be used by hand tools.
Cas No. : From the known information, this product doesn't have dangerous properties.

3 Composition / Information On Ingredients

Fatalness : Not expected to be harmful to health.
Invasive Approach : Contact with the skin and eye, swallowed.
Harmful to health : Not expected to be harmful to health.
Harmful to Environment : Not easily decomposed by biology.
Flammable or Combustible : Not classified by OSHA as flammable or combustible.

4 First Aid Measures

Skin Contact : Wash with soap and water, then wash skin with clean water thoroughly. If the dermal irritant occurs, get medical advice.
Eye Contact : Wash eyes with clean water or physiological brine for at least 15 minutes. If the dermal irritant occurs, get medical advice.
Inhalation : No volatile substance occurs at normal temperature. Not expected to be harmful if inhaled the high temperature steam.
Ingestion : Not expected to be harmful if swallowed. Do not induce vomiting. As a precaution, get medical advice.

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5 Fire Fighting Measures

- Fire Classification : Not classified by OSHA as flammable or explosive.
- Combustion Products : A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.
- Extinguishing Method and Medium : Use water fog, foam, dry chemical, carbon dioxide (CO²), sand or earth to extinguish flames.
- Fire Fighting Instructions : Do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

6 Accidental Release Measures

- Accidental Release Measures : Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in personal protection. Use appropriate techniques such as applying non-combustible absorbent materials to absorb the scrap. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

7 Handling and Storage

- Handling Information : When you remove this product into cylinder, please wear exposure suit. Use proper handling tool, and prevent overflowing.
- Storage Notation : Storage in the place of cool, dry and fresh air, storage temperature: 0 - 50. Don't storage near with hot fountain, keep away from flammable material and strong oxidizing agents; don't storage in the opened or non-label container.

8 Exposure Controls / Personal Protection

- Engineering Controls : Use in a well-ventilated area.
- Respiratory Protection ; No special eye protection is normally required.
- Eye Protection : No special eye protection is normally required.
- Skin Protection : Prevent from contacting skin to the best of your abilities, wear exposure suit, and wash your work clothes in time.
- Hand Protection : Suggested materials for protective gloves include; Neoprene, Nitrile Rubber.
- The Other Protection : Wash hands before eating, smoking and toileting.

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9 Product Quality Text Report

Lithium Complex P-620 <Blue Colour>

| No. | Text Item | Text Result | Text Method |
|-----|---|---|---------------|
| 1 | Appearance | Uniform Ointment | By Eye |
| 2 | Worked Cone Penetration 1/10mm | 226 | GB/T 269 |
| 3 | Dropping Point °C | 280°C - 300°C | BG/T 4929 |
| 4 | Oil Separation (100°C,24h) | 1.2 | SH/T 0324 |
| 5 | Corrosion (T ² Copper Strip) 100°C, 24h) | No black or Green appears on sheet copper | GB/T 7326 2ed |
| 6 | Prolonged Worked Penetration for 10 5/2 times | 250 | GB/T 269 |
| 7 | Evaporation Loss (99°C,22h) % | 0.418 | GB/T 7325 |
| 8 | Leakage (104°C,6h),g | 0.3 | SH/T 0326 |
| 9 | Oxidation Stability (99°C,100h, 0.76MPa)Mpa | 0.025 | SH/T 0325 |
| 10 | Similar Viscosity (-15°C, 10S-1) Pa, s | 1080 | SH/T 0048 |
| 11 | Water Washout Loss (38°C,1h)% | 0.5 | SH/T 0109 |
| 12 | Anti-corrosive Properties (52°C,48h), grade | 1 | GB/T 5018 |
| 13 | Extreme Pressure Performance (Four-ball Machine)PB Value, N | 3089 | SH/T 0202 |
| 14 | Product Use Life (148°C),h | 400 | SH/T 0428 |

10 Stability and Reactivity

Incompatibility With Other Other Materials

: Strong acid,strong alkali, strong oxidizing agents.

Avoiding Contact Condition

: High temperature, insolate.

Hazardous Polymerization

: Hazardous polymerization will not occur.

Hazardous Decomposition Products

: Hazardous decomposition will not occur at the normal storage period.

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11 Toxicological Information

| | |
|---------------------------|---|
| Contact Limitation | : No correlative data. |
| Acute Oral Toxicity | : Innocuous (LD50>15g/kg (rat)). |
| Acute Inhalation Toxicity | : Nearly no irritation (LD50>5.0mg/1). The acute inhalation toxicity hazard is based on evaluation of data for similar materials or protect components. |
| Eye Irritation | : Nearly no irritation (grade:0 or <6>. The eye irritation is based on evaluation of data for similar materials or product components. |
| Skin Irritation | : Nearly no irritation (main irritation index 0.5~3). The eye Irritation is based on evaluation of data for similar materials or product components. |
| Skin Sensitization | : Not expected to be skin sensitive substance |
| Carcinogenic Property | : None |
| The Other | : Prevent from contacting skin to the best of your abilities. Under the condition of your bad personal sanitation, the dermatitis may occur. |

12 Ecological Information

| | |
|---|--|
| Ecological Toxicity | : Expected to be innocuous to aquatic organisms. |
| Biodegradable Property | : Not easily to be decomposed by biology. |
| Non-Biodegradable Property | : At the dropping point, the thickening agent and oil are divided. |
| Biology Enrichment or Biology Accumulate Property | : The product is semisolid in most condition. It floats on the water or contact soil, can be adsorbed by soil. |

13 Disposal Considerations

| | |
|------------------|---|
| Disposal Methods | : Grease collection service are available for used grease recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations; you'd better select a unit who has callback and disposal aptitude. |
| Notation | : The grease that are used or scrap may have some harmful impurity in the process of use; it may do harm to environment and health. : Prevent from contacting skin to the best of your abilities. Don't put into the nature; don't pollute the soil water. : The disposal of product is the same with the offal. The wrapping barrel will be turn to the manufacturer to repair when it's cleaned up. The wrapping barrel which is used up may have some scrap or steam, avoid jointing incision etc. One-off metallic or plastic packaging should be call backed if possible; or disposed as industrial garbage. |

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14 Transport Information

Hazardous Goods Number : In standard of P-620, Lubricant grease doesn't belong to hazardous goods.
UN Number : The transportation of this product is innocence.
Packing Method : 4 kg, 15 kg, 180 kg
Transportation Notation : Don't ship with hazardous goods, commodity, food and cigarette. There're no other specific requirements.

15 Regulatory Information

Regulatory Information : In P-620 <The Classification and Sign of Hazardous Chemical in Common Use> is divided into eight kinds, lubricant grease doesn't belong to this category.
USE DOT doesn't have regulatory
IMO doesn't have regulatory.
IATA doesn't have regulatory.

16 Other Information

Further information : None
Print Date : 12-7-2014

N/A - Not Applicable N/D - Not Determined

All recommendations for the use of our products, whether given by us in writing, orally, or to be implied from data or test results obtained by us, are based on the current state of our knowledge at the time such recommendations are made. When additional information is obtained, these recommendations may be updated. They may also be influenced by circumstances outside our control. Notwithstanding such recommendations, the user is responsible to determine that the product as supplied by us, is suitable for the process or purpose he intends to use it. The user of the product is solely for compliance with all laws and regulation applying to the use of the product. Since we cannot control the application, use or processing of the products, we do not accept responsibility therefore. The user shall ensure that the intended use of the products will not infringe in any party's intellectual property rights.

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