



SAFETY DATA SHEET

According to GHS 3rd Revised Edition

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

1.1. GHS product identifier

Product name: **LITHIUM COMPLEX EP # 3**

Other means of identification: Grease

1.2. Recommended uses of the chemical and restriction on uses

Recommended use

As lubricant for extreme pressure applications

Restrictions on use

None specified

1.3. Details of the manufacturer / supplier of the safety data sheet

Manufacturer

P.S.P. Specialties Co., Ltd.

1 Boromrachachonanee Rd.,
Arun-Amarin, Bangkoknoi,
Bangkok, 10700,
Thailand.

Tel: +662 4340540

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E-mail: Info@psp.co.th

1.4 Emergency telephone number

Tel: +662 4340540

SECTION 2: HAZARDS IDENTIFICATION

2.1. GHS classification of the substance or mixture

2.1.1. According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) 3rd Revised Edition":

Product: Mixture

Physical Hazards	Not classified
Health Hazards	Not classified
Environmental Hazards	Not classified

2.1.2. Additional information:

None

2.2. Label elements

Labelling according to GHS 3rd Revised Edition

Hazard Pictogram

Not applicable

Signal word

Not applicable

Hazard statements

Not applicable

Precautionary statements

Not applicable

2.3. Other hazards which do not result in GHS classification

None known

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS**3.1 Mixtures or substances**

Mixtures of base oil and additives.

Chemical identity	CAS Number	Concentration (% weight)	Ingredients hazard code
2-ethyl hexanoic acid	149-57-5	0.1 - 0.6	H361d

* Remaining ingredients which within the current knowledge of the supplier are not classified as hazardous to health or the environment, or below the applicable cut-off concentration, and hence do not require disclosure in this section as according to GHS.

SECTION 4: FIRST AID MEASURES**4.1. Description of first aid measures**

General advice:

Treat according to symptoms.

Skin contact:

Rinse with soap and plenty of water and remove contaminated clothing and shoes. Get medical treatment if symptoms prolong.

Inhalation:

Remove to fresh air. No specific first aid measures are required.

Eye contact:

Rinse immediately with running water, also under the eyelids for 15 minutes. Check for and remove any contact lenses. See a medical doctor or ophthalmologist for treatment.

Ingestion:

Wash out mouth with water. Remove dentures if any. Drink glasses of water or milk to dilute. If any symptoms appear get medical treatment. Do not induce vomiting.

Protection of first-aiders:

Wear personal protective equipment.

4.2. Most important symptoms and effects, both acute and delayed

No effect expected.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media:

Alcohol resistant foam. Water fog. Carbon dioxide (CO₂). Dry chemical powder, sand or earth may be used for small fires.

Unsuitable extinguishing media:
Do not use water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such carbon monoxide, carbon dioxide, other pyrolysis products typical of burning organic material and lithium hydroxide dust.

5.3. Special protective equipment and precautions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Put on appropriate personal protective equipment. Do not touch or walk through spilled material because it is slippery.

6.2. Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Collect spillage. Report spills to local authorities as appropriate or required.

6.3. Methods and materials for containment and cleaning up

Stop leak if without risk. Spills can be reused or recycled if possible. Absorb spills in special absorbents or inert materials such as diatomite or vermiculite and collect in suitable container for disposal. Dispose of as special waste in compliance with local and national regulations. Prevent further leakage or spillage if safe to do so.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Use and handle in well ventilated areas. Use personal protective equipment as required. Keep away from heat and ignition sources. Handle in accordance with good industrial hygiene and safety practise. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

Empty containers retain product residue and can be hazardous. Do not reuse container. Empty containers should be completely drained, properly closed, and disposed of properly.

Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.2. Conditions for safe storage, including any incompatibilities

Store under cover away from moisture and sources of ignition. Do not overheat in storage. Keep container tightly sealed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

National occupational exposure limits / Biological occupational exposure limits

Components	TWA
2-ethylhexanoic acid	US-ACGIH : 5 mg/m ³ (Inhalable fraction and vapor)

Recommended monitoring procedures

Not required under sufficient ventilation.

8.2. Appropriate engineering controls

General ventilation should be designed to prevent accumulation and recirculation in the workplace.

8.3 Individual protection measures, personal protective equipment

Handle in accordance with good industrial hygiene and safety practise.

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Eye protection:

Wear safety glasses with side shields, goggles or face shield.

Protective clothing:

Wear suitable protective clothing and chemical resistant gloves which includes nitrile rubber gloves, Viton, etc.

Ventilation:

Provide adequate ventilation when processing material at elevated temperatures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	Semi solid
Colour:	Yellow
Odour:	Characteristic
Odour Threshold:	No data available
pH:	Not applicable
Melting point/ freezing point (°C):	No data available
Boiling point (°C):	No data available
Flash point (°C):	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Lower explosion limit:	Not applicable
Upper explosion limit:	Not applicable
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	No data available
Solubility:	Not soluble in water
Partition coefficient: n-octanol/water:	No data available
Autoignition temperature (°C):	No data available
Decomposition temperature (°C):	No data available
Viscosity:	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

May react with oxidizing agents.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

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

10.4. Condition to Avoid

Acids.

10.5. Incompatible materials:

Oxidizing agents.

10.6. Hazardous Decomposition Products

Incomplete combustion will generate smoke, toxic fume, carbon dioxide and hazardous gases, including carbon monoxide and sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on the likely routes of exposure

11.2 Symptoms related to physical, chemical and toxicological characteristics

Skin contact

No effect expected.

Eye contact

Discomfort.

Inhalation

No effect expected.

Ingestion

Mild discomfort.

Carcinogenic effects

Based on available data, the classification criteria are not met.

Mutagenic effects

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

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.

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

No effect expected.

11.4 Numerical measures of toxicity

Components	LD50/oral/rat	LC50/inhalation/rat	LD50/dermal/rabbit
Base oil	>5,000 mg/kg	>5.53 mg/l	>5,000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

12.1. Eco-Toxicity (aquatic and terrestrial)

Components	Type	Freshwater Fish Species	Test Method
Base oil	96 hr LL ₅₀	>100 mg/l	-

Components	Type	Crustacea	Test Method
Base oil	96 hr EL ₅₀	>10,000 mg/l	-

Components	Type	Algae	Test Method
Base oil	Acute NOEL 72 hr	>100 mg/l	-

12.2. Persistence and degradability

Expected to be readily biodegradable but the product contains components that may persist in the environment.

12.3. Bioaccumulative potential

Product is not likely to accumulate in biological organisms.

12.4. Mobility in soil

The product will absorb to the soil particles and will not be mobile.

12.5. Other adverse effects

Films formed on water may affect oxygen transfer and damage organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products:

Reuse or recycle whenever possible. If not, dispose of in accordance with hazardous waste management regulations of the country of use.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal in accordance with hazardous waste management regulations of the country of use.

Relevant regulation:

Hazardous waste management regulations of the country of use.

SECTION 14: TRANSPORTATION INFORMATION

14.1. UN-Number

Not regulated

14.2. UN proper shipping name

Not regulated

14.3. Transport hazard class

Not regulated

14.4. Packing group

Not regulated

14.4.1. Further information for transport

IMDG
Not regulated

ADR/RID
Not regulated

ICAO/IATA
Not regulated

14.5. Environmental hazards:
None.

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
Not evaluated.

14.7. Special precautions for user
None required.

SECTION 15: REGULATORY INFORMATION

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

This product is not considered as hazardous according to the classification criteria of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) 3rd Revised Edition.

Further Information:

This SDS is prepared for the purpose of providing safety information for transportation and occupational handling conditions.

SECTION 16: OTHER INFORMATION

This safety data sheet has been prepared according to following regulations:

Local regulations adopting Globally Harmonized System of Classification and Labelling of Chemicals (GHS) 3rd Revised Edition.

Hazard statements:

H361d - Suspected of damaging the unborn child

Revision 1

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SDS prepared by: P.S.P. Specialties Co., Ltd.

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