

# MSDS Report

Prepared For :	SHENZHEN CHENXI POWER SUPPLY TECHNOLOGY CO., LTD. NO.2108, Wen'An Center, Wenjin plaza, North Road Wenjin, Luohu District, Shenzhen
Sample Name:	Polymer Li-ion Battery
Sample Model :	601538, 061538, 051235, 051230, 062030, 083040, 053048, 052035, 303035, 042030, 051220, 041220, 606168, 503759
Trade Mark	N/A
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Inspected by: Zou Xia

Date :



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## Material Safety Data Sheet

### Section 1- Chemical Product & Company Identification

**Product Name:** Polymer Li-ion Battery

**Manufacture:** SHENZHEN CHENXI POWER SUPPLY TECHNOLOGY CO., LTD.

**Address:** NO.2108, Wen'An Center, Wenjin plaza, North Road Wenjin, Luohu District, Shenzhen

**Contact Person:** XiangNan OuYang

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### Section 2- Composition/Information on Ingredients

#### Polymer Li-ion Battery

**Ingredient Name:** Polymer Li-ion Battery

**The difference between the single product and mixture:** mixture

**Chemical Name:** Polymer Li-ion Battery

**Constitutes:**

Chemical Name	CAS No.	Wt %
Lithium	7439-93-2	25-40
Iron	7439-86-6	15-25
Aluminium foil	7429-90-5	2-6
Graphite	7782-42-5	10-20
Copper foil	7440-50-8	5-15
Organic electrolyte	--	10-20

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LiFePO4	--	10-20
Ni	7440-02-0	2-3

## Section 3- Hazards Identification

### Polymer Li-ion Battery

**Health Hazards Acute & Chronic:** Acute: Irritation Of Eyes, Skin Respirator G.I.Tract, Dizziness, Weakness, Nausea, Headache.

**Signs & Symptoms of Overexposure:**

**Eyes:** irritation. **Skin:** moderate irritation, defatting, dermatitis. **Inhalation:** respiratory irritation, effects, dizziness, weakness, nausea, headache **ingest:** g.i.tract irritation, nausea, vomiting & diarrhea.

## Section 4- First Aid Measures

### Polymer Li-ion Battery

**First Aid:**

**Eyes:** Flush with plenty of water, Get medical attention.

**Skin:** wash thoroughly with soap & water.

**Inhalation:** remove to fresh

**Air:** get medical attention.

**Ingestion:** Do not induce

**vomiting;** Keep warm. get medical attention.

**The most important symptom and harm effect:** acid burn

**The protection to the first aid person:** According to procedure to disposal

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## Section 5- Fire Fighting Measures

### Polymer Li-ion Battery

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, msha/niosh (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable liquid and vapor.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Flash Point:** 15 deg C ( 59.00 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** Not published.

## Section 6- Accidental Release Measures

### Polymer Li-ion Battery

#### Spill Release Procedures:

**Use Proper Personal Protection;** Remove All Ignition Sources. Use Suitable Absorbent Materials And Recover For Proper Disposal.

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## Section 7- Handling and Storage

### Polymer Li-ion Battery

**Handling:** Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.

**Operation and Storage:**

1. Do not remove the bolt when polymer Li-ion battery contained in equipment has not been recharged.
2. After cleaning the body and terminal of the polymer Li-ion battery contained in equipment with pure water, coat it with some Vaseline to prevent malfunction.
3. Keep the polymer Li-ion battery contained in equipment fully charged, and charge twice monthly. If necessary, add some pure water or distilled water.
4. Store the polymer Li-ion battery contained in equipment in a dry and cool place, away from the sun, rain, and heat.

## Section 8 - Exposure Controls/Personal Protection

### Polymer Li-ion Battery

**Respiratory Protection:**

Use NIOSH/MSHA Approved Respirator For Organic Vapors/Mist If Above TLV/PEL

**Ventilation:**

Keep the workshop well ventilated, accord with the current OSHA safety and health requirements. Local/General To Maintain To Maintain TLV/PEL Below The Limits.

**Protective Gloves:**

Nitrile Rubber

**Eye Protection:** Chemical Splash Goggles

**Other Protective Equipment:** Impervious Clothing & Boots.

**Work Hygienic Practices:** Avoid Contact With Skin And Eyes; Do Not Breathe Vapors/Mist

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## Section 9- Physical and Chemical Properties

### Polymer Li-ion Battery

**Substance estate:** mixture

**Shape:** solid

**Color:** N/A

**Smell:** thrill smell

**PH value:** N/A

**Boiling point/ boiling point scope:** N/A

**Decomposition temperature:** N/A

**Fire point:** N/A

**Test method:** cup-opening

**Self-ignite temperature:** non-combustible

**Explosion limit:** N/A

**Vapor tension:** N/A

**Vapor density:** N/A

**Density:** N/A

**Solubility:** Dissoluble in water

## Section 10 – Stability and Reactivity

### Polymer Li-ion Battery

**Chemical Stability:** Stable.

**Conditions to Avoid:** Incompatible materials, exposure to moist air or water.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, strong bases, alkali metals, metallic salts.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported

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## Section 11 – Toxicological Information

### Polymer Li-ion Battery

Inhalation, skin contact and eye contact are possible when the battery is opened. Exposure to internal contents, the corrosive fumes will be very irritative to skin、eyes and mucous membranes .Overexposure can cause symptoms of non-fibrotic lung injury and membrane irritancy.

## Section 12-Ecological Information

### Polymer Li-ion Battery

Persistence/degradability:

Since a batter cell and the internal material remain in the environment do not bury or throw out into the environment.

## Section 13 – Disposal Considerations

### Polymer Li-ion Battery

Recommended methods for safe and environmentally preferred disposal

Product (waste from residues)

Do not throw out a used battery cell. Recycle it through the recycling company.

Contaminated packaging

Neither a container nor packing is contaminates, dispose as industrial wastes subject to special control

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## Section 14 – Transport Information

### Polymer Li-ion Battery

The battery models listed have aggregate equivalent lithium content below the 10g. And shipment contains no item listed under IATA DGR Special Provision A154, and meets all requirements under UN Manual of Tests and Criteria Part III, subsection 38.3.

The product is not classified as dangerous under the current edition of the ICAO & IATA dangerous goods regulations and according PI965-PI967 all applicable Carriers. The product is safe for air transportation and not regulated by ICAO & IATA DGR.

Sea

IMO-IMDG code: inc Amdt 36-12

The UN classification number: class 9 3090

However, since it corresponds to IATA DGR 53rd, 2012 or inc Amdt 36-12 of IMOIMDG Code, this battery cell can be conveyed normally.

## Section 15 – Regulatory Information

### Polymer Li-ion Battery

Regulations specifically applicable to the product

IATA UN NO.: 3090 (air transportation)

IMO UN NO.: 3090 (sea transportation)

US department of transportation 49 codes of federal regulations (USA)

Waste disposal and public cleaning law (Japan)



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Other information:

The information contained in this safety data sheet is based on the present state of knowledge and current legislation. This safety data sheet provides guidance on health safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

## Section 16 – Additional Information

### **Polymer Li-ion Battery**

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

*End of report*