

MATERIAL SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME: Lithium Battery

MODEL/SIZE: 3.7V 72Ah

MANUFACTURER: OSN POWER ENERGY LIMITED

ADDRESS: YuXing 2nd science and technology park, Bao'an District, Shenzhen, CHINA, P.C.518102

TELEPHONE: 86-755-25609940

2. COMPOSITION/INFORMATION ON INGREDIENTS

Common Chemical Name	Concentration (%)	CAS Number	EC No.
Aluminum Foil (Al)	≈ 13.63	7429-90-5	231-072-3
Copper Foil (Cu)	≈ 10.11	7440-50-8	231-159-6
SBR (CF ₂ -CF ₂) _n	≈ 0.59	9003-55-8	N/A
PVDF	≈ 1.15	24937-79-9	N/A
Graphite (C)	≈ 18.35	7782-42-5	231-955-3
Electrolyte(proprietary)	≈ 15.53	21324-40-3	244-334-7
		96-49-1	202-510-0
		616-38-6	210-478-4
		623-53-0	613-014-2
LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂	≈ 36	N/A	N/A
Carboxymethyl Cellulose	≈ 0.29	9004-32-4	618-378-6
Separator	≈ 2.75	N/A	N/A
S-0	≈ 0.69	N/A	N/A
Super-P	≈ 0.94	N/A	N/A

3. HAZARDS/HEALTH IDENTIFICATION

Emergency Overview (including Signs and Symptoms, Route(s) of Entry, etc.):

Intact batteries present no specific hazards.

Acute Health Hazards (e.g., Inhalation, Eye Contact, Skin Contact, Ingestion, etc.):

Burning batteries: AVOID inhalation of toxic fumes. Burning batteries emit toxic fumes, which are irritating to the lungs.

Leaking batteries: AVOID exposure to leaking electrolyte, it can cause severe irritation and/or damage to the skin, mucous membrane or eyes.

Chronic Health Effects (e.g., Carcinogenicity, Teratology, Reproduction, Mutagenicity, etc.):

Cobalt: Suspected human carcinogenic agent.

Medical Conditions Generally Aggravated by Exposure: None.

4. FIRST-AID MEASURES

Inhalation: If battery is burning, leave the area immediately. If exposed to fumes, seek medical attention promptly.



Skin Contact: If battery electrolyte leaks on to the skin flush the affected area for at least 15 minutes with clean water. DO NOT attempt to neutralize. Seek medical attention promptly.

5. FIRE-FIGHTING AND EXPLOSION HAZARD DATA

Flammable Properties: N/A

Flashpoint: Method:

Autoignition Temperature:

Flammable Limits: N/A

Lower flammable limit: Upper flammable limit:

Hazardous Combustion Products: Burning batteries may emit acrid smoke irritating fumes, and toxic fumes of fluoride.

Extinguishing Media: Carbon dioxide (CO₂) or dry chemical fire extinguisher, 10-B:C.

Fire Fighting Instructions:

Personnel: Fight the fire in a defensive mode, while exiting the area. When using a CO₂ fire extinguisher, DO NOT re-enter the area until it has been thoroughly ventilated (i.e., purged) of the CO₂ extinguishing agent.

Firefighters: Use a self-contained breathing apparatus (SCBA).

6. ACCIDENTAL RELEASE MEASURES

Small Spill: If batteries show signs of leaking, AVOID skin or eye contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean-up. Coordinate disposition with the Installation Environmental Office.

7. HANDLING&STORAGE

Handling: Recharge batteries IAW methods specified in applicable technical manuals.

DO NOT:

- Overcharge this battery.
- Abuse, mutilate or short circuit the battery.

Storage: Gain approval for storage areas from the Installation Fire Department. Store batteries in a cool (i.e., <130°F), dry and well ventilated area.

DO NOT:

- Store batteries in direct sunlight or under hot conditions.
- Smoke and keep batteries away from open flame or heat.
- Store batteries in the same stacks with hazardous materials.
- Store batteries in office areas, or other areas where personnel congregate.

Work/Hygienic Practices: Thoroughly wash hands after cleaning-up a battery spill (i.e., leaking or venting batteries). NO eating, drinking or smoking in battery storage areas.

8. PERSONAL PROTECTION

Personal protective equipment:

Respiration protection: Self-contained breathing apparatus

Eye protection: Safety glasses

Skin protection: Rubber gloves

9. PHYSICAL & CHEMICAL PROPERTIES

Boiling Point @ 760 mm Hg (°C): NA

Vapor Pressure (mm Hg @ 25°C): NA

Vapor Density (Air = 1): NA

Density (grams/cc): NA

Percent Volatile by Volume (%): NA

Evaporation Rate (Butyl Acetate = 1): NA

Physical State: NA



Solubility in Water (% by Weight): NA

PH: NA

Appearance and Odor: geometric solid object

10. STABILITY & REACTIVITY

Stable or unstable: Stable

Incompatibility (Materials to avoid) : NA

Hazardous decomposition products: NA

Decomposition temperature (0°F): NA

Hazardous polymerization: Will Not Occur

Condition to Avoid: Avoid electrical shorting

Watt Hour:

11. TOXICOLOGICAL INFORMATION

Acute toxicity: None

12. ECOLOGICAL INFORMATION

NA

13. DISPOSAL CONSIDERATION

Lithium Ion rechargeable cells and batteries contain no toxic metals, only naturally occurring trace elements. Lithium Cells and batteries are exempted from hazardous waste standards under the Universal Waste Regulations, therefore, it is advisable to consult with local state or federal authorities as disposal regulations may vary dependent on location..

14. TRANSPORT INFORMATION

This report applies to by sea, by air and by land;

The Li-ion Battery tested according to the requirements of the 5th revised edition of the UN manual of tests and Criteria, Part III, subsection 38.3;

Lithium ion battery was protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to short circuit;

The LITHIUM ION BATTERY according to Section II of PACKING INSTRUCTION 965-967 of the 2024 IATA Dangerous Goods regulations 65th Edition may be transported and applicable U.S.DOT regulations for the safe transport of Li-ion Battery.

More information concerning shipping, testing, marking and packaging can be obtained from label master at <http://www.labelmaster.com/>.

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

The package must be handled with care and that a flammability hazard exists if the package is damaged; Each package must be labeled with a Li-ion Battery handling label or in addition to the Class 9 hazard label. With regard to transport, the following regulations are cited and considered:

hazard class): Non dangerous;

Marine pollutant (Y/N): N;

- The International Maritime Dangerous Goods (IMDG) Code.

For lithium-ion batteries by sea, provided that packaging is strong and prevent the products from short-circuit. UN number of lithium battery: UN3480;

UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment;

UN Classification (Transport hazard class): Non dangerous; Marine pollutant (Y/N): N;



Special Provision: International maritime dangerous goods code (IMDG) 188, 230, 310, 348, 957;

- The US Hazardous Materials Regulation (HMR) pursuant to a final rule issued by RSPA

15. REGULATORY INFORMATION

None

16. OTHER INFORMATION

The information contained herein is furnished without warranty of any kind. Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.