

Material Safety Data Sheet

Report No. : FULLYMAX-MSDS-FB1110(REV A)

Samples : Lithium-ion Polymer Batteries (Rechargeable)

Models : Lithium-ion Polymer Batteries (Rechargeable)

Applicant : Fullymax Battery Co., Ltd

Address : District B,Dongjiang Industrial Park,Shuikou Sub-district, huizhou,
Guangdong

Manufacturer : Fullymax Battery Co., Ltd

Address : District B,Dongjiang Industrial Park,Shuikou Sub-district, huizhou,
Guangdong

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Section 1- Chemical Product & Company Identification

Product name	Lithium-ion Polymer Batteries (Rechargeable)
Manufacture	Fullymax Battery Co., Ltd
Address	District B,Dongjiang Industrial Park,Shuikou Sub-district, huizhou, Guangdong
Emergency Telephone No.	+86-752-2322549
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Section 2- Composition/ Information on ingredients

Chemical composition	Molecular Formula	CAS No.	Weight(%)
Graphite		7785-42-5	24%
Lithium Cobalt Oxide		12190-79-3	36%
Aluminum Foil		7429-90-5	3%
PVDF(Polyvinylidene Fluoride)		24937-79-9	2%
Copper Foil		7440-50-8	6%
Electrolyte	DMC	616-38-6	3%
	PC	108-32-7	1%
	EC	96-49-1	3%
	EMC	623-53-0	3%
	LiPF6	21324-40-3	7%
Separator	PE	9002-88-4	3%
Conductive Carbon		7440-44-0	3%
Aluminum Packing Foil	Nylon	32131-17-2	0.50%
	Al	7429-90-5	2%
	PP	9003-07-0	0.50%
Al Tab	7429-90-5	7429-90-5	0.90%
	9003-07-0	25038-54-4	0.10%
Ni Tab	Ni	7440-02-0	1.90%
	PP	9003-07-0	0.10%



Section 3- Emergency and First Aid Procedures

Inhalation

Not a health hazard

Eye contact

Not a health hazard

Skin Contact

Not a health hazard.

Ingestion

If swallowed, obtain medical attention immediately.

<Caution>

IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER CASING, THE FOLLOWING ACTIONS ARE RECOMMENDED:

Inhalation

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth and seek medical attention.

Eye & Skin contact

In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes; seek medical attention.

Ingestion

Drink milk / water and induce vomiting; seek medical attention.

Section 4- Fire Fighting Measures

General Hazard

Cell is not flammable but internal organic material will burn if the cell is incinerated. Combustion products include, but are not limited to hydrogen fluoride carbon monoxide and carbon dioxide.



Extinguishing Media

Use extinguishing media. Suitable for the materials that are burning.

Special Firefighting Instructions

If possible, remove cell(s) from fire fighting area. If heated above 130°C, Cell(s) may explode/swell or leak.

Firefighting Equipment

Use NISH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

Section 5- Accidental Release Measures

On Land

Place material into suitable containers. Dispose of waste according to local and Federal laws and regulations.

In water

If possible, remove from water. Dispose of water according to local and Federal laws and regulations.

Section 6- Handling and Storage

Handling

No special protective clothing required for handling individual cells.

Storage

Keep away from heat and open flame.

Store in a cool and dry place

Section 7- Personal Protection



Respirator

Not required during normal operation. SCBA required in the event of a fire.

Eye/face protection

Not required beyond safety practices of employer.

Foot protection

Steel toed shoes recommended for large container handling.

Gloves

Not required for handling of cells.

Section 8- Physical/ Chemical Characteristics

Appearance	Solid
Odor	N/A
Vapor Pressure(mmHg)	N/A
Vapor Density (air=1)	N/A
Boiling Point	N/A
Solubility in water	insoluble
Specific Gravity	N/A
Density	N/A

Section 9- Exposure Controls, Personal Protection

Respiratory Protection

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting batteries. Respiratory Protection is not necessary under conditions of normal use.

Ventilation

Not necessary under conditions of normal use.

Protective Gloves

Not necessary under conditions of normal use.

Other Protective Clothing Of Equipment

Not necessary under conditions of normal use.



Personal Protection is recommended for venting batteries: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

Section 10- Reactivity and Stability Data

Reactivity

None during normal operating or handling conditions.

Hazardous decomposition

None during normal operating conditions. If cells are leaked, hydrogen fluoride, carbon monoxide and carbon dioxide may be released.

Incompatibilities

None during normal operation. Avoid exposure to heat, open flame and corrosives

Conditions to avoid

- Don't short terminals and immerse in water or pour.
- Don't heat or throw in fire and solder.
- Don't attempt to crush or drop.
- Don't put it in microwave oven, oven or pressure container.
- Don't attempt to modify

Section 11- Toxicological Information

This product does not elicit toxicological properties during routine handling and use.

Sensitization	No
Teratogenictiy	No
Reproductive toxicity	No
Acute toxicity	No

If the cells are leaked through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.

Section 12- Ecological Information

Some materials within the cell are bio-accumulative.



Under normal conditions, these materials are contained and pose no risk to persons or the surrounding environment.

Section 13- Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

If batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amount of not creation, or unconsumed lithium remaining in the spent battery. The batteries must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste. Recycling of battery can be done in authorized facility, through licensed waste carrier.

Section 14- Transport Information

Lithium-ion that is compliant with UN38.3 Test Requirements and this consignment is classified as not restricted cargo and compliant with packing instruction PI965-Section II of IATA DGR 61th edition, the special provision 188 of IMDG, and can be ship for air transportation in any nature. The maximum lithium equivalent of each Lithium-ion Polymer in this shipment is less than 100Wh. The Lithium-ion Polymer battery does not contain any recall or defective batteries and packed Individually in proper pattern that is effective to prevent short circuit, accidental activation and is be packed in strong outer packing constructed of suitable material adequate strength together with proper “ Lithium cells/ batteries handling” label . Lithium-ion Polymer content in Gram (g) AND the less than 5kg gross per package is passed UN3480 (PI965) . If Lithium-ion Polymer battery is used to construct battery packs, the assembler of that pack is responsible to ensure the battery has been tested in accordance with the requirement contained in the UN Manual of Test and Criteria and shipped in accordance with applicable regulations.

Batteries must be packaged and offered for transportation in a manner that prevents the dangerous evolution of heat (for example, by the effective insulation of exposed terminals) and protects against short circuits.

Transport Fashion: By air, by sea, by railway, by road.



Section 15- Regulatory Information

Law Information

- 《Dangerous Goods Regulation》
- 《Recommendations on the Transport of Dangerous Goods Model Regulations》
- 《International Maritime Dangerous Goods》
- 《Technical Instructions for the Safe Transport of Dangerous Goods》
- 《Classification and code of dangerous goods》
- 《Occupational Safety and Health Act》 (OSHA)
- 《Toxic Substances Control Act》 (TSCA)
- 《Consumer Product Safety Act》 (CPSA)
- 《Federal Environmental Pollution Control Act》 (FEPCA)
- 《The Oil Pollution Act》 (OPA)
- 《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》
(SARA)
- 《Resource Conservation and Recovery Act》 (RCRA)
- 《Safety Drinking Water Act》 (CWA)
- 《California Proposition 65》
- 《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and Local laws.

Section 16- Additional Information

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.

