

MATERIAL SAFETY DATA SHEET

Product Name : Rechargeable Polymer Li-ion Battery Module Model No. : BW7535
Document Number : MSDS Li-ion Issue Date : Jan 11, 2023

The batteries referenced herein are exempt articles and are not subject to the OSHA Hazard Communication Standard requirement. This sheet is provided as a service to our customers.

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Identification of the substance/preparation

Product Name	Rechargeable Polymer Li-ion Battery Module
Use of the substance/preparation	Battery
Company/Undertaking Identification Supplier	9/F., Sing Shun Centre, No. 495 Castle Peak Road, Lai Chi Kok, Kowloon, Hong Kong
Emergency telephone number	852-2314-0330

2. COMPOSITION / INFORMATION ON INGREDIENTS

Product Name : Rechargeable Polymer Li-ion Battery Module

INGREDIENTS	CAS#	Weight %
Aluminum	7429-90-5	18.50 – 19.80%
Graphite	7740-44-0	8.40 – 10.00%
Copper	7440-50-8	27.00 – 28.50%
Lithium Mixed Meal Oxide	N.A.	16.40 – 18.00%
Lithium Cobaltate	12190-79-3	16.40 – 18.00%
Electrolyte	N.A.	10.70 – 12.00%

3. HAZARDOUS AND TOXICITY CLASS

Class Name	: Not applicable for regulated class
Hazard	: The battery is a sealed which is not hazardous when used according to recommendations. Under normal conditions of use, the integrity of the battery casing and security vent are maintained, the ingredients are not expected to pose a significant risk to man or the environment.
Toxicity	: Vapor generated from burning batteries, may make Eyes, Skin and Throat irritate.

4. SUBSTANCE IDENTIFICATION

Substance : Lithium ion battery
CAS number : Not specified
UN Class : Even classified as Lithium ion batteries, if the packing can be fulfilled the either following case, the Product can be handled as Non-Dangerous Goods.
1, 2023 IATA dangerous Goods Regulations 64th Edition Packing Instruction 965 section IB is applied.

1.1 The batteries must be offered for transport at a state of charge (SoC) not exceeding 30% of the rated capacity.

2, 2023 IATA dangerous Goods Regulation 64th Edition Packing Instruction 966 section II is applied.

Lithium ion batteries offered for transport are not subject to other additional requirements of the UN 3481 regulations if they meet the following:

- 1) For battery, Watt-hour rating is not more than 2.7Wh.
- 2) For battery packed with equipment, Watt-hour rating is not more than 20Wh.
- 3) Each battery is of the type proven to meet the requirements of each test in the UN Manual of Test and Criteria Part III subsection 38.3.
- 4) And they are out of scope for Special provision A154 and comply with Special Provision A164.

Batteries must be packed in strong outer packaging.

5. FIRST AID MEASURES

General advice

Show this Safety Data Sheet to the Doctor in attendance.

The information below refers to exposure to the ingredients.

Inhalation

Immediate medical attention is required. Move to fresh air. If symptoms persist, call a physician.

Skin Contact

Immediate medical attention is required. Remove contact lenses.

Rinse immediately with plenty of water for at least 15 minutes.

Ingestion

Immediate medical attention is required. Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Call a physician or Poison Control Centre immediately.

6. FIRE-FIGHTING MEASURES

Suitable extinguishing media

CO₂, Dry Chemical, and Foam extinguishers are preferred for small fires. Water can be used to control all fires, which involved lithium ion batteries. However, hydrogen gas may be evolved which can foam an explosive mixture with air. LITH-X (powered graphite) or copper powder fire extinguishers, sand, dry ground dolomite or soda ash may also be used.

Special protective equipment for Firefighters

Fire fighters should wear Self-Contained breathing apparatus. Burning lithium polymer batteries can produce toxic fumes.

Hazardous decomposition products

Lithium compounds, Carbon oxides, Hydrogen fluoride

7. ACCIDENTAL RELEASE MEASURES

The information below refers to exposure to the ingredients.

Personal precautions

Use personal protective equipment. Avoid contact with Skin and Eyes. Caustic potassium hydroxide may be released from leakage or ruptured batteries.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Do not allow material to contaminate ground water system.

To avoid risks to man and the environment, comply with the instructions for use.

Methods for cleaning up

Pick up and transfer to properly labelled containers.

Dispose of in accordance with local regulations.

8. HANDLING AND STORAGE

Handling

Technical measures / Precautions

No Special technical protective measures required.

Safe handling advice

Do not expose the battery to excessive physical shock or vibration.

Do not disassemble or deform the battery.

Follow the instruction for use issued by the producer. If the leakage is occurred, use personal protective equipment, and avoid contact with skin and eyes.

Storage

Technical measures / Storage conditions

Keep in a dry, cool and well-ventilated place, preferably in the temperature range of +5 to +25°C at 65%(+/-5%) relative humidity

Keep away from heat and sources of ignition.

Keep away from water.

9. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupation exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Not required under normal use.

The information below refers to exposure to the ingredients.

Respiratory protection

Effective dust mask.

Hand protection

Neoprene gloves (EN 374) or equivalent.

Eye protection

Safety glasses with side-shields conforming to EN166 or equivalent.

Skin and Body protection

Boots, apron, long sleeved clothing

Hygiene measures

Do not allow material to contaminate ground water system.

Viscosity : Not applicable

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May cause sensitization by inhalation and skin contact. Limited evidence of a carcinogenic effect.

12. ECOLOGICAL INFORMATION

If used as directed, and if the integrity of the battery casing and security vent are maintained, the ingredients are not expected to pose a significant risk to the environment.

Mobility

No Data available

Persistence and degradability

Not readily biodegradable.

Ecotoxicity effects

No Data available

13. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Keep away from heat and sources of ignition

Materials to avoid

Exposure to moisture

Hazardous Decomposition Products

If burned or exposed to fire, Batteries may release toxic fumes including VOC's.

14. STABILITY AND REACTIVITY

Waste from residues / unused products

Dispose of in accordance with local regulations. It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Should not be released into the environment.

Further information

Never incinerate Li-ion batteries.

15. TRANSPORTATION INFORMATION

- Each battery is of the type proven to meet the requirements of each test in the UN Manual of tests and Criteria Part III subsection 38.3.
- Each packing only contains batteries, the packing must meet the requirement of 2023 IATA dangerous Goods Regulations 64th Edition Packing Instruction 965 section IB.
- Each packing contains the equipment with battery, the packing must meet the requirement of 2023 IATA dangerous Goods Regulations 64th Edition Packing Instruction 966 section II.
- During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the place of high temperatures and do not allow them to be exposed to condensation.
- Recommendations on the transport of dangerous goods – Model Regulations 21th revised edition, IATA Special Provision A154, A164 and package instruction Section IB of 965 and Section II of 966 for Lithium ion Batteries and IMDG Special Provision 188. We comply with above transportation requirements to ship the goods.

16. REGULATORY INFORMATION

- IATA DANGEROUS GOODS REGULATIONS 64rd Edition 2023
- IMDG DANGEROUS GOODS REGULATIONS
- ICAO Technical Instructions for the safe transport of dangerous goods by air

