

# MATERIAL SAFETY DATA SHEET

## Section1-Chemical Product &Company Identification

Product Identification: Lithium ion Rechargeable Battery

Issued Date:2023/01/04

Manufacturer:

Gallopwire Technology Inc.(Kunshan).

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## Section2-Hazards Identification

Hazard Description: Not dangerous with normal use, open or shred the battery ingredients contained within or their ingredients products could be harmful

Primary Route of Exposure: Inhalation, Ingestion, Skin contact and Eye contact

Potential Health Effects: No effect under routine handling and use.

## Section 3-Composition/Information on Ingredients

### A. Lithium Ion battery Matrix

#### 1. Lithium Ion Cell Composition:

Manufacture	Type	Capacity (mAh)	Cell Weight(g)
LG	INR18650MH1	3200	45

#### 2. Chemical Name:

Chemical Name	Molecular formula	CAS No	Weight percentage(%)
Aluminum Foil	AL	7429-90-5	2-10
Nickel compound	---	1313-99-1	0-25
Manganese compound	---	1313-13-9	0-15
Cobalt compound	---	1307-96-6	4-50
Polyvinylidene Fluoride (PVDF)	---	24937-79-9	<5
Copper Foil	CU	7440-50-8	2-10

Carbon	---	7440-44-0	10-30
Electrolyte (Ethylene carbonate)	---	96-49-1	10-20
Styrene-Butadiene-Rubber	---	27288-99-9	<1
Lithium hexafluorophosphate	---	21324-40-3	<5
Stainless steel,Nickel and inert materials	---	N/A	Remainder

## B. Battery Product Matrix:

### 1.Customer Name: Zylux

### 2. Battery Pack Information:

Customer P/N	Battery Name	Nominal voltage	Pack Weight(g)	Typical capacity
1032-0000095	BS1	3.7V	65	3000mAh/11.1Wh
1032-0000095-3	BS1	3.7V	65	3000mAh/11.1Wh

## Section 4-First Aid Measures

**Ingestion:** If swallowed. Obtain medical attention immediately.

**Inhalation:** Leave area immediately and seek medical attention.

**Eye Contact:** Rinse eyes with water for 15 minutes and seek medical attention.

**Skin Contact:** Wash area thoroughly with soap and water and seek medical attention.

**Ingestion:** Drink milk/water and induce vomiting; seek medical attention

## Section 5-Fire Fighting Measures

**Characteristics of Hazard:** Toxic fumes, gases or vapors may evolve on burning

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes and so on

**Fire-extinguishing Methods and Extinguishing Media:** Please use water, dry sand and other proper fire extinguishing media

**Attention in Fire-extinguishing:** The firemen should put on antigas masks and full fire-fighting suits

## Section 6-Accidental Release Measures

**On Land:** Place material into suitable containers and call local fire/police department.

**In water:** If possible. Remove from water and call local fire/police department

## Section 7-Handling and Storage

**Handling:** No special protective clothing required for handling individual cells.

**Storage:** Store in a cool, dry place.

### Section 8-Exposure Controls / Personal Protection

**Engineering Controls:** Keep away from heat and open flame. Store in a cool and dry place.

**Personal Protection:**

**Respirator:** Not required during normal operations. SCBA required in the event of a fire.

**Eye/Face Protection:** Not required beyond safety practices of employer.

**Gloves:** Not required for handling of battery

**Foot Protection:** Steel toed shoes recommended for large container handling.

### Section 9-Physical and Chemical Properties

State	solid
Odor	N/A
PH	N/A
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

### Section 10-Stability and Reactivity

**Reactivity:** None

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

**Conditions To Avoid:** Avoid exposure to heat and open flame. Don not puncture, crush or incinerate.

### Section 11-Toxicological Information

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

### Section 12-Ecological Information

Lead and its compounds can pose a threat if released to environment. See waste disposal method in 13.Disposal Considerations.

### Section 13-Disposal Considerations

**Waste Disposal Method:** This battery is recyclable. It is illegal to dispose of lead-acid batteries by any means other than recycling.

**Battery electrolyte (acid):** Neutralize as above for a spill, collect residue, and place in a drum or suitable container. Dispose of as hazardous waste. Do not flush lead contaminated acid to sewer.

**Batteries:** Send to lead smelter for reclamation following applicable Federal, state and local regulations. Product can be recycled along with batteries

### Section 14-Transport Information

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

The Rechargeable Li-ion Battery tested according to the requirements of the UNITED NATIONS "Manual of Tests and Criteria" Part III, subsection 38.3

The Rechargeable Li-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 Rechargeable Li-ion Battery can be shipped by air in according to Section IB of PACKING INSTRUCTION 965, or Section II of PACKING INSTRUCTION 966~967 of the 2023 IATA Dangerous Goods regulations 64<sup>th</sup> Edition

With regard to transport, the following regulations are cited and considered:

1. The International Civil Aviation Organization(ICAO) Technical Instructions
2. The International Air transport Association(IATA) Dangerous Goods Regulations
3. UN number of lithium battery: UN3480 or UN3481
4. UN Proper shipping name/Description(technical name):Lithium ion batteries or Lithium ion batteries, contained in equipment or Lithium ion batteries packed with equipment
5. UN Classification(Transport hazard class):Class 9(PI965 Section IB) or N/A (PI965~967 Section II)

The International Maritime Dangerous Goods(IMDG) Code

1. UN number of lithium battery: UN3480 or UN3481
2. UN Proper shipping name/Description(technical name):Lithium ion batteries or Lithium ion batteries, contained in equipment or Lithium ion batteries packed with equipment
3. UN Classification(Transport hazard class):N/A
4. Marine pollutant(Y/N):N
5. The battery is not restricted according to IMO IMDG Code(inc Amdt 40-20)
6. Need to meet the Special Provision: International maritime dangerous goods code (IMDG)188,230,348,384

EmS No. :F-A,S-I

### Section 15-Regulatory Information

1. 《Dangerous Goods Regulations》

2. 《Recommendations on the Transport of Dangerous Goods Model Regulations》
3. 《International Maritime Dangerous Goods》
4. 《Technical Instructions for the Safe Transport of Dangerous Goods》
5. 《Classification and code of dangerous goods》
6. 《Occupational Safety and Health Act》 (OSHA)
7. TSCA/CPSA/FEPCA/OPA/SARA/RCRA/CWA/REACH/(2006/66/EC,2013/56/EU).....

### Section 16-UN Test Result

There is no hazards in accordance with the UN recommendations tests (Manual of Test sand Criteria, Part III, sub-section 38.3)

No	Items	Result	Remark
1	Altitude Simulation	Pass	
2	Thermal Shock	Pass	
3	Vibration	Pass	
4	Shock	Pass	
5	External Short	Pass	
6	Impact	Pass	
7	Overcharge	Pass	
8	Forced Discharge	N/A	For cell only

