
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

Lithium Ion Rechargeable Battery/Receiver Pack for Hobby Use

COMPANY NAME

GreatCells Systems

ADDRESS & PHONE NUMBER

**1001 Bukit Merah Lane 3 Alexandra Village Industrial Estate #01-59
Singapore 159718**

**TEL: 65-62720863 (Daytime Weekdays),
65-82828008 / 65-97621270 (Night and Weekends)**

FAX: 65-62768232

EMERGENCY CONTACT

65-82828008 / 65-97621270

2. **PRODUCT INFORMATION**

Product Name	SKU	Voltage (V)	Capacity (mAh)	Watt Hour (wH)	Weight (g)	Packaging Dimension (LxBxH) [mm]
Flash 25	GC-8108-F25	7.2	2500	18	109	128 x 64 x 36
Flash 33	GC-8108-F33	7.2	3300	23.75	109	128 x 64 x 36
Flash 34	GC-8108-F34	7.2	3400	24.48	120	128 x 64 x 36
z-30	GC-8108-Z30	7.2	3000	21.6	108	128 x 64 x 36
z-42	GC-8108-Z42	7.2	4200	30.24	139	128 x 64 x 36

3. HAZARDS IDENTIFICATION

For the battery cell, chemical materials are stored in a hermetically sealed metal or metal laminated plastic case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there is no physical danger of ignition or explosion and chemical danger of hazardous materials leakage.

However, if exposed to a fire, added mechanical shocks, decomposed, added electrical stress by misuse, the gas release vent will be operated. The battery cell case will be breached, hazardous materials may be released.

If overheated by the surrounding fire, acrid gas may be emitted.

Primary routes of entry

Skin contact, eye contact, inhalation or ingestion: No

Symptoms of exposure

No effect under routine handling and use.

Skin contact

No effect under routine handling and use.

Eye contact

No effect under routine handling and use.

Report as carcinogen

Not applicable.

4. FIRST AID MEASURES

In case of exposure to internal material of the cell due to damage on the outer casing, the following actions are recommended.

Ingestion

If swallowed, induce vomiting. Obtain medical attention if possible.

Inhalation

The steam of the electrolyte has an anesthesia action and stimulates the respiratory tract. Leave area immediately and go to an open area. Seek medical attention if necessary.

Eye contact

Do not rub the eye. Flush eyes with water continuously for 15 minutes and seek medical attention.

Skin contact

The steam of the electrolyte stimulates the skin and may cause a sore. Wash area thoroughly with soap and plenty of water. Remove contaminated clothes and shoes immediately. Seek medical attention if unwell.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Plenty of water, carbon dioxide gas, nitrogen gas, chemical powder fire extinguishing medium and fire foam.

Specific hazards: Corrosive gas may be emitted during fire.

Specific methods of fire-fighting: When the battery burns with other combustibles simultaneously, take fire-extinguishing method which correspond to the combustibles.

Special protective equipment for firefighters:

Respiratory protection: Respiratory equipment of a gas cylinder style or protection-against-dust mask .

Hand protection: Protective gloves .

Eye protection: Goggle or protective glasses designed to protect against liquid splashes.

Skin and body protection: Protective clothes.

6. ACCIDENTAL RELEASE MEASURES

Spilled internal cell materials, such as electrolyte leaked from a battery cell, must be carefully dealt with according to the followings:

Precautions for human body: Remove spilled materials with protective equipment (protective glasses and protective gloves). Do not inhale the gas as much as possible. Avoid contacting the material with bare skin.

Environmental precautions: Do not throw out into the environment. Dispose according to local the laws.

Method of cleaning up: Place spilled solids into a container meant for this type of waste. The leaked area should be cleaned with dry cloth and washed with soap and water.

Prevention of secondary hazards: Avoid re-scattering. Do not bring the collected materials close to fire.

7. APPEARANCE AND PHYSICAL PROPERTIES

Physical state: Solid

Form: Oval cylindrical (laminated)

Color: Red/Grey/Black/White

Odor: No odor

Terminals: Protected and covered

8. STABILITY AND REACT

Stability: Stable under normal use.

Hazardous reactions occurring under specific conditions:

Conditions to avoid: External short-circuit, crushes, deformation, high temperature above 100 degree C, it will be the cause of heat generation and ignition. Direct sunlight and extremely high humidity.

Materials to avoid: Conductive materials, water, seawater, strong oxidizers and strong acids.

Hazardous decomposition products: Acrid or harmful gas is emitted during fire.

9. HANDLING AND STORAGE

Handling suggestions

- Do not connect the positive terminal to the negative terminal with electrical wire or chain.
- Avoid polarity reverse connection when installing the battery to an instrument.
- Do not wet the battery with water, seawater, strong acid or expose to strong oxidizer.
- Do not damage or remove the external protector/covering.
- Keep the battery away from heat and fire.
- Do not disassemble or reconstruct the battery.
- Do not give battery a mechanical shock or deformation.

Storage

- Do not store the battery with metalware, water, seawater, strong acid or strong oxidizer.
- Store at room temperature or less (temperature= -20~35 degree C) in a dry (humidity: 45~85%) place. Avoid direct sunlight, high temperature, and high humidity.
- Use insulative and adequately strong packaging material to prevent short circuit between positive and negative terminal when the packaging breaks during normal handling. Do not use conductive or easy to break packaging material.

10. TRANSPORT INFORMATION

In the case of transportation, avoid exposure to high temperature and prevent the formation of any condensation. Take in a cargo of them without falling, dropping and breaking.

Prevent collapse of cargo piles and wet by rain. The container must be handled carefully. Do not give shocks that result in a mark of hitting on a cell. Please refer to Section 8 - HANDLING AND STORAGE also.

UN regulation

UN number: 3480 (3481 when the battery is contained in equipment or packed with equipment)

Proper shipping name: Lithium ion batteries (“lithium ion batteries contained in equipment” or “lithium ion batteries packed with equipment”)

Class: 9*

Packing group:

* Although this product meets the criteria of “dangerous goods” and are classified as “lithium ion batteries”, depending on the battery’s total capacity in the packaging, etc., they may not be subject to the fully regulated provisions.

Regulation depends on region and transportation mode.

Worldwide - Air transportation:

ICAO/IATA-DGR [packing instruction 965 section IB or II] (When shipping batteries “packed with” or “contained in” equipment, use packing instruction 966 or 967 as appropriate.)

Worldwide - Ocean transportation: IMO-IMDG Code [special provision 188]

11. OTHER INFORMATION

This safety data sheet is offered an agency who handles this product to handle it safely.

The agency should utilize this safety data sheet effectively (put it up, educate person in charge) and take proper measures.

The information contained in this Material 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.