

SECTION 1— Identification

1.1 Product identifier

Trade name: Rechargeable lithium ion battery

1.2 Sample Model

ZR-FC48100-1630J2, ZR-FC48100-1630J2-H,

ZR-FC48100-1530J2, ZR-FC48100-1530J2-H

1.3 Details of importer

Company: Sealed Performance Batteries Pty Ltd

Name: Ryan Hammond

Title: Director

Telephone: +61 447 567 962

Email: ryanh@spb.net.au

Address: 1 Ant Road YATALA QLD 4207 Australia

Details of manufacturer

Company: Zhongrui Green Energy Technology (Shenzhen) Co., Ltd.

Name: Sunny Wang

Title: Sales manager

Telephone: +86 13602589231

Email: sunny@zruipower.com

Section 2—Hazard(s) identification

3.1 Classification of the hazardous chemical

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

3.2 GHS Label elements

No signal word, pictograms, hazard or precautionary statements have been allocated.

3.3 Other hazards

Section 3—Composition and information

Chemical Name	Percent of Content	CAS No
Lithium iron phosphate	24%	15365-14-7
Graphite	10%~30%	7782-42-5
Lithium hexafluorophosphate	23%	21324-40-3
Aluminum	5%~10%	7429-90-5
Copper	7%~13%	7440-50-8
Nickel	1%~5%	7440-02-0
Iron	22%~30%	7439-89-6

Do not short circuit, recharge, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the declared operating temperature range of the product.

Risk of fire or explosion. The Lithium batteries described in this Safety Data Sheet are sealed units which are not hazardous when used according to the recommendations of the manufacturer.

Under normal conditions of use, the electrode materials and liquid electrolyte they contain are not exposed to the outside, provided the battery integrity is maintained and seals remain intact. Exposure may occur as a result of external environmental conditions or in cases of abuse (mechanical, thermal, electrical) which lead to the activation of safety pressure relief

Section 4—First aid measures

4.1 Description of necessary first aid measures

•Eye

Exposure is considered unlikely unless casing is damaged. Flush gently with running water. Seek medical attention if irritation develop.

•Inhalation

Exposure is considered unlikely. Due to product form / nature of use, an inhalation hazard is not anticipated.

•Skin

Exposure is considered unlikely unless casing is damaged. Gently flush affected areas with water. Seek medical attention if irritation develops.

•Ingestion

For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form.

•First aid facilities

Eye wash facilities should be available.

4.2 Most important symptoms and effects, both acute and delayed

Adverse effects not expected from this product. Exposure to battery contents may cause irritation and potential burns.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

Section 5—Firefighting measures

5.1 Suitable extinguishing equipment

Cold water and dry powder in large amount are applicable. Use metal fire extinction powder or dry sand if only few cells are involved.

5.2 Special hazards arising from the chemical

Contents react with water. May explode if exposed to high temperatures due to pressure build up in battery casing. Lithium may burn in a fire situation and may be ejected from the battery. Damaged cells may evolve toxic and flammable vapours.

5.3 Special protective equipment and precautions for firefighters**Protective equipment:**

- Wear self-contained respiratory protective device.
- Wear fully protective suit.

Additional information.

If possible, remove cell(s) from fire fighting area. If heated above 125 ° C, cell(s) can explode/vent. Cell is not flammable but internal organic material will burn if the cell is incinerated.

Section 6—Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
- Keep unauthorized personnel away. Stay upwind. Keep out of low areas.
- Ventilate closed areas before entering.
- Wear adequate personal protective equipment as indicated in Section 8.

6.2 Environment protection measures:

- Absorb spilled material with non-reactive absorbent such as vermiculite, clay or earth.
- Prevent from migration into soil, sewers and natural waterways – inform local authorities if this occurs.

6.3 Methods and materials for containment and cleaning up

Evacuate spill area immediately and remove sources of ignition. Do NOT touch spilled material. Cleanup personnel must be trained in the safe handling of this product. Spills may be absorbed on non-reactive absorbents such as vermiculite. Place cells or batteries into individual plastic bags and then place into appropriate containers and close tightly for disposal. Ensure that cleanup procedures do not expose spilled material to any moisture. Immediately transport closed containers outside. Lined steel drums are suitable for storage of damaged cells or batteries until proper disposal can be arranged.

Section 7—Handling and storage**7.1 Precautions for safe handling :****Advice on safe handling:**

- Avoid short circuiting the cell.
- Avoid mechanical damage of the cell.
- Do not open or disassemble.

Advice on protection against fire and explosion:

Keep away from open flames, hot surfaces and sources of ignition.7.2 Conditions for safe storage, including any incompatibilities

7.2 Conditions for safe storage, including any incompatibilities

Store tightly sealed in a cool, dry, well ventilated area, removed from water, incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Store below 50 ° C.

Section 8—Exposure controls and personal protection**8.1 Exposure control measures**

- **Exposure Limit Values:** Airborne exposures to hazardous substances are not expected when the cells or batteries are used for their intended purposes. Exposure standards are not applicable to the sealed articles.
- **DNELs:** No further relevant information available
- **DMELs:** No further relevant information available
- **PNECs:** No further relevant information available
- **Additional information:** No further relevant information available

8.2 Biological monitoring

Not applicable.

8.3 Control Banding

Not applicable

8.4 Engineering controls

Special ventilation is not required when using these products in normal use scenarios. Ventilation is required if there is leakage from the cell or battery

8.5 Individual protection measures, for example personal protective equipment (PPE)**•Eye and Face protection:**

Eye protection is not required when handling cells or batteries during normal use. Wear safety glasses/goggles if handling a leaking or ruptured cell or battery

•Skin (Hand) protection:

Hand protection is not required when handling the cell or battery during normal use. PVC gloves are recommended when dealing with a leaking or ruptured cell or battery.

•Skin (clothing) protection:

Skin protection is not required when handling the cell or battery during normal use. Wear long sleeved clothing to avoid skin contact if handling a leaking or ruptured cell or battery. Soiled clothing should be washed with detergent prior to re-use.

•Respiratory protection:

During routine operation, a respirator is not required. However, if dealing with an electrolyte leakage and irritating vapors are generated, an approved half face inorganic vapor and gas/acid/particulate respirator is required.

•Other Protective Equipment:

Have a safety shower or eye wash station readily available.

Section 9—Physical and chemical properties

Physical state: Solid

Colour: Various

Odour: Odourless

Melting point/freezing boiling: Not available

Boiling point or initial boiling point and boiling range: Not available

Flammability: Not available

Lower and upper explosion limit/flammability limit: Not relevant

Flash point: Not relevant

Auto-ignition temperature: Not available

decomposition temperature: Not available

PH: Not available

Kinematic viscosity: Not available

Solubility: Not available

Partition coefficient:Not available

Vapour pressure: Not available

Density and/or relative density: Not available

Relative vapour density: Not available

Particle characteristics: Not available

Section 10—Stability and reactivity**10.1 Reactivity**

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization will not occur.

10.4 Conditions to avoid

Heat above 70°C or incinerate. Deform. Mutilate. Crush. Pierce. Disassemble. Recharge. Short circuit. Expose over a long period to humid conditions.

10.5 Incompatible materials

Battery contents are incompatible with water (evolving flammable gas), oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources.

10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition

Section 11—Toxicological information

11.1 Acute toxicity

No specific acute toxicity data exists for this product. Batteries consist of a hermetically sealed metallic container containing a number of chemicals and materials of construction that may be hazardous upon release. Over exposure considered unlikely unless battery ruptures and contact with contents occurs. Contents may be harmful.

11.2 Skin

Not classified as a skin irritant unless the battery ruptures.

Contact with contents may cause irritation redness, dermatitis and possible burns with prolonged contact.

11.3 Eye

Not classified as an eye irritant unless the battery ruptures.

Contact with contents may cause irritation, redness and possible burns with prolonged contact.

11.4 Sensitisation

Not classified as causing skin or respiratory sensitisation.

11.5 Mutagenicity

No evidence of mutagenic effects.

11.6 Carcinogenicity

No evidence of carcinogenic effects.

11.7 Reproductive

No relevant or reliable studies were identified.

11.8 SToT - single exposure

Not classified as causing organ damage from single exposure. Due to the product form and nature of use. Exposure to internal contents is not anticipated unless the battery ruptures. Exposure to contents may cause respirator irritation.

11.9 STOT - repeated exposure

Not expected to cause organ effects from repeated exposure. Due to the product form and nature of use. Exposure to internal contents is not anticipated unless the battery ruptures.

11.10 Aspiration

Not relevant

Section 12—Ecological information

12.1 Toxicity

This product may be hazardous to the environment if not properly used or disposed of. Do not let internal components enter the marine environment. Avoid release to waterways, wastewater or ground water.

12.2 Persistence and degradability

This product is not readily biodegradable.

12.3 Bioaccumulative potential

Limited information was available at the time of this review.

12.4 Mobility in soil

This product has low mobility in soil.

12.5 Other adverse effects

No information provided.

Section 13—Disposal considerations**13.1 Waste treatment methods**

Waste disposal: Contact your state EPA or the manufacturer for additional information.

Legislation: Dispose of in accordance with relevant local legislation.

Section 14—Transport information

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	3480	3480	3480
14.2 Proper Shipping Name	LITHIUM ION BATTERIES (including lithium ion polymer batteries)	LITHIUM ION BATTERIES (including lithium ion polymer batteries)	LITHIUM ION BATTERIES (including lithium ion polymer batteries)
14.3 Transport hazard class	9A	9A	9A
14.4 Packing Group	None allocated.	None allocated.	None allocated.

14.5 Environmental hazards for transport purposes

Not a Marine Pollutant

14.6 Special precautions for user

GTEPG: REFER

EmS: F-A, S-I

14.7 Additional information

If this battery is to be packed in or with equipment UN 3481 LITHIUM ION BATTERIES CONTAINED

14.8 Hazchem or Emergency Action Code

No information provided.

Section 15—Regulatory information

15.1 Safety, health and environmental regulations

Poison schedule

A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications

Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

Section 16—Other information

16.1 Date of preparation or review

16.2.1 Version: 2025020601

Data:02.18.2025

16.2 Key abbreviations or acronyms used

EMS

Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)

GHS

Globally Harmonized System

GTEPG

Group Text Emergency Procedure Guide

IARC

International Agency for Research on Cancer

pH

Relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

SUSMP

Standard for the Uniform Scheduling of Medicines and Poisons

SWA

Safe Work Australia