

Safety Data Sheet (SDS)

For

Xianning Times China Energy Li-ion Battery Co, Ltd.
1F-3F, Development Road ,Yuyue Town, Jiayu County, Xianning City, Hubei, China
And for their product

RECHARGEABLE LI-ION BATTERY PACK

Model / type referenceLI5208BM

Trademark.....ZnB

Voltage 14.8V
Nominal

Capacity 5200mAh, 76.96Wh
Typical

Number of V1.0
version: Date
of preparation.....: December 19, 2023
Date of
revision: N/A.
Effective
date: January. 01 2024

Laboratory: Dongguan ZRLK Testing Technology Co., Ltd.

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1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY /ENTERPRISE

Product identification

Product name: RECHARGEABLE LI-ION BATTERY PACK

Model: LI5208BM

Other means of identification

Synonyms: none

Recommended use of the chemical and restrictions on use

Recommended use: Used in portable electronic equipment; Not recommended:

- a) Do not disassemble, open or remove batteries.
- b) Do not expose batteries to heat or fire, and avoid direct sunlight when storing.
- c) Do not short-circuit a battery. Do not store batteries randomly in a box or drawer where they can short-circuit each other or be short-circuited by other metal objects.
- d) Do not remove a battery from its original packaging until you are ready to use it.
- e) Do not subject batteries to mechanical shock.
- f) In the event of a cell leak, do not allow the liquid to come into contact with skin or eyes. In case of contact, flush affected area with copious amounts of water and seek medical advice.
- g) Observe the plus (+) and minus (-) signs on the cell, battery and equipment to ensure correct use.
- h) Children should be supervised when using the battery.
- i) Seek immediate medical attention if a cell or battery is swallowed.
- j) Keep batteries clean and dry
- k) Whenever possible, remove the battery from the equipment when it is not in use.
- l) Lay it out correctly.

Information concerning the supplier of the safety data sheet:

Supplier's name: Xianning Times China Energy Li-ion Battery Co., Ltd.

Address: 1F-3F, Development Road ,Yuyue Town, Jiayu County, Xianning City, Hubei, China

Supplier's telephone number: +86-715-6345999

24h emergency number: +86-715-6345999 Fax:

/

Postal code: /

E-mail address: 1349447362@QQ.COM

E m e r g e n c y n u m b e r

Company emergency telephone number: +86-715-6345999

2. HAZARD IDENTIFICATION

Classification

No risk in normal use. In the event of contact with the electrolyte liquid in the lithium-polymer battery, the references are as follows:

Classification of substance or mixture

GHS classification

Acute toxicity, Oral (Category 4 hazard) Acute toxicity, Dermal (Category 3 hazard) Irritating to skin (Category 1B)

Irritating to eyes (Category 1 hazard)

GHS label elements, including precautionary statements:



GHS02



GHS05



GHS06

Signal word: Warning Hazard statement(s):

H242: Heating may cause fire;

H311: Toxic in contact with skin;

H314: Causes severe skin burns and eye damage;

H302: Harmful if swallowed;

Safety advice:

Prevention:

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

Answer:

P312: Call a poison control center or doctor if you feel unwell.

P302+P350- IF ON SKIN: Rinse and wash skin.

skin with soap and water.

P301+P330+P331- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting P305+P351+P338 -

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if easy to do,

continue rinsing. **Storage:**

No

Layout

P501: Dispose of contents / container in accordance with local / national regulations.

Hazards not otherwise classified (DNCA)

Not Applicable

Other information

No information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description:

Product: Composed of the following elements.

Common Chemical Name	Concentration (%)	CAS Number
Nickel cobalt manganese lithium oxide	35-40	182442-95-1
Artificial Carbon	12-15	7440-44-0
Copper	7-10	7440-50-8
Graphite	8	7782-42-5
1,1-Difluoroethylene polymer	6	24937-79-9
Aluminum	5	7429-90-5
Ethylene carbonate	5	96-49-1
Nickel	2-5	7440-02-0
Dimethyl Carbonate	2-5	616-38-6
Lithium metal	2-3	7439-93-2

Note: The CAS number is the Chemical Abstracts Service registry number.

N/A=Do not apply

4. FIRST AID MEASURES

First aid measures

Eye contact Flush with plenty of water, including under eyelids. If symptoms persist, call a doctor.
 Skin contact Remove contaminated clothing and shoes. Wash skin with soap and water. In case of skin irritation or allergic reactions, seek medical attention. If symptoms persist, call a physician.
 If swallowed, DO NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.
 Most important symptoms and effects are acute and delayed at the same time. If swallowed, do not induce vomiting, seek medical attention.

Most important symptoms/effects No information available.

Indication of any immediate medical attention and special treatment needed Note to physicians symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

CO₂, dry chemical powder, water spray.

Unsuitable extinguishing media: no information available.

Specific hazards caused by the chemical

Toxic gas is probably formed during the heating process or in the event of fire. In the event of fire, the following may be released:

Carbon monoxide (CO) Carbon dioxide

Other toxic and irritating gases.

Hazardous Combustion Products

Carbon oxides.

Explosion data

Sensitivity to mechanical impact No

Electrostatic discharge sensitivity No

Protective equipment and precautions for firefighters

As in all fire situations, wear a pressure-demand, MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus (SCBA) and full protective gear. For example: Wear self-contained breathing apparatus. Wear appropriate protective clothing and eye/face protection.

Special hazards arising from the substance or mixture:

The battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium-ion batteries contain flammable electrolyte which can burst, ignite and spark when subjected to high temperatures (> 150 °C), damage or abuse (e.g. mechanical damage or electrical overload); this can burn very quickly with the torch burning and ignite other batteries in the vicinity.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

Refer to section 8 for personal protective equipment. Ensure adequate ventilation.

Eliminate all sources of ignition.

Evacuate personnel to safe areas.

Environmental precautions

Environmental precautions Refer to protective measures in sections 7 and 8.

Absorb with liquid-binding material (sand, diatomite, acid binder, universal binder, sawdust). Dispose of contaminated material as waste in accordance with point 13.

Methods and equipment for containment and clean-up



Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment. Dike. Cover liquid spill with sand, earth or other non-combustible absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good safety practice and industrial hygiene. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Wash thoroughly after handling. Use this material with adequate ventilation. Product is non-explosive.

Safe storage conditions, including possible incompatibilities

If the lithium-ion battery is subjected to long-term storage for more than 3 months, we recommend periodic charging of the lithium-ion polymer battery.

3 months: -10°C~+40°C, 45 to 85%RH

And for long-term storage, 0°C~+35°C is recommended.

The rate of recovery to delivery condition (50% of full load capacity) after storage is assumed to be 80% or more.

Do not store lithium-ion batteries in any box or drawer where they can short-circuit each other or be short-circuited by other metal objects.

Keep out of reach of children.

Do not expose batteries to heat or fire, and avoid direct sunlight when storing.

Do not store with oxidizing materials or acids.

Avoid sources of ignition - do not smoke. Store in a cool, dry, well-ventilated place. **Incompatible**

productsNone known.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters none

The other Exposure Guidelines Limits released
revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Technical

measure

sDouches

Eye showers

Ventilation systems

Use adequate general or local ventilation capable of maintaining airborne concentrations below permissible exposure limits. Ensure adequate ventilation.

Personal protective measures, such as personal protective equipment Eye/face protection:



Hermetically sealed safety goggles

Body protection:

Protective work clothing.

Skin protection:



Protective gloves

Glove material:

The choice of suitable gloves depends not only on the material, but also on other quality criteria that may vary from one manufacturer to another. As the product is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before application.

Penetration time of glove material:

The exact penetration time is to be found out by the protective glove manufacturer and must be observed.

Respiratory protection No protective equipment is required under normal conditions of use. If exposure limits are exceeded or irritation is observed, ventilation and evacuation may be necessary.

Hygiene measures Handle in accordance with industrial hygiene standards and safety instructions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical condition	Shape: Prismatic
	Color: Silver
	Odour: Odourless
	Olfactory threshold: no information available
Change according to conditions:	
pH, with concentration indication	Not determined
Melting point / freezing point	Not determined.
Initial boiling point and range boiling:	Not determined.
Flash point	Not determined.
Evaporation rate	Not determined.
Flammability (solid, gas)	Not determined.
Higher/lower flammability or explosion limits	Not determined.
Vapor pressure::	Not determined.

Vapour density:	Not determined.
relative density:	Not determined.
Solubility in water:	Not determined.
Solubility in other solvents	Not determined.
water / n-octanol partition coefficient	Not determined.
Auto-ignition temperature	The product is not self-flammable.
Decomposition temperature	Not determined.
Odour threshold	Not determined.
Evaporation rate	Not determined.
Viscosity	Not determined.
Other information	No other relevant information available.

10. STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage and handling conditions (see section 7, Handling and storage).

Chemical stability: Stable under normal conditions of use, storage and transport. **Thermal decomposition / conditions to avoid:** No decomposition if used in accordance with specifications.

Possibility of hazardous reactions: None under normal processing conditions.

Hazardous polymerization: Hazardous polymerization does not occur. **Conditions to avoid:** Extreme heat, fire, incompatible materials.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Carbon oxides, Other irritating and toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: No data available.

LD/LC50 values applicable to classification:

Not available.

Corrosion / skin irritation: No irritant effect.

Serious eye damage/irritation: Causes severe eye irritation. **Respiratory or skin sensitization:** No sensitizing effects known. **Organ system toxicity:**

No information available.

CMR effects (carcinogenic, mutagenic and toxic for reproduction): No information available.

12. Ecological information

Toxicity:

Aquatic toxicity:

No other relevant information available.

Persistence and degradability: No relevant information available.

Bioaccumulative potential: No relevant information available. **Mobility in soil:**

No relevant information available.

PBT results and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation: Do not dispose of in household waste.

Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be carried out in accordance with official regulations.

14. TRANSPORT INFORMATION

Ground transportation

ADR/RID class: Not regulated.

Maritime transport

Non-Hazardous for sea transport: Non-hazardous for sea transport.

Air transport

his report applies to by sea, by air and by land;

The Rechargeable Li-ion Polymer Battery must be of a design type proved to meet the testing requirements of the Manual of test and criteria, Part III, subsection 38.3;

The Rechargeable Li-ion Polymer Battery according to Section II of PACKING INSTRUCTION 966-967 and 965 IB of the 2023 IATA Dangerous Goods regulations 64th Edition may be transported. and applicable U.S. DOT regulations for the safe transport of Lithium-ion Battery. Rechargeable Li-ion Polymer 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;

Cell and batteries offered for transport must be packed in inner packaging's that completely enclose the cell or battery; to provide protection from damage or compression to the batteries, the inner packaging's must be placed in a strong rigid outer packaging;



The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

The package must be handled with care and that a flammability hazard exists if the package is damaged;

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

- The International Civil Aviation Organization (ICAO) Technical Instructions.
- The International Air transport Association (IATA) Dangerous Goods Regulations.

UN number of lithium battery: UN3480;

UN Proper shipping name/Description (technical name): Lithium ion batteries;

Marine pollutant(Y/N): N;

- The International Maritime Dangerous Goods Code 2022 Edition (Amdt.41-22)

For lithium-ion batteries by sea, provided that packaging is strong and prevent the products from short-circuit.

UN number of lithium battery: UN3481;

UN Proper shipping name/Description (technical name): Lithium ion batteries

Marine pollutant(Y/N): Y;

Special Provision: International maritime dangerous goods code (IMDG) 188, 230, 310, 348, 957;

- The US Hazardous Materials Regulation (HMR) pursuant to a final rule issued by RSPA
- The Office of Hazardous Materials Safety within the US Department of Transportations' (DOT) Research and Special Programs Administration (RSPA)

15. REGULATORY INFORMATION

Specific safety, health and environmental regulations/legislation for the substance or mixture

EU regulations:

Approvals: No information available **Restrictions on use:**

No information available **Regulatory information**

CAS number	EU (EINECS)	United States (TSCA)	Japan (ENCS)	Canada (DSL/ NDSL)	Austria (AICS)	Korea (ECL)	China (IECSC)
12031-65-1	Listed	Not listed	Not listed	NDSL	Not listed	Not listed	Not listed
7429-90-5	Listed	Listed	Listed	DSL	Listed	Listed	Listed
7782-42-5	Listed	Listed	Listed	DSL	Listed	Listed	Listed
7440-50-8	Not listed	Listed	Not listed	DSL	Listed	Listed	Listed
623-53-0	Not listed	Listed	Not listed	DSL	Listed	Listed	Listed
105-58-8	Listed	Listed	Listed	DSL	Listed	Listed	Listed
96-49-1	Listed	Listed	Listed	DSL	Listed	Listed	Listed
Chemical safety assessment	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

carried out.

16. OTHER INFORMATION

This information is based on our current knowledge. However, it does not constitute a guarantee of product properties and does not give rise to a legally valid contractual relationship.

Relative sentences:

R20/22: Harmful by inhalation and if
swallowed. R36: Irritating to eyes.

H302: Harmful if swallowed. H332:
Harmful if inhaled.

*****FIN DE FDS*****