Report No.ATSM250605911

Material Safety Data Sheet

Sample name : LiFePO4 BATTERY

Consignor : Zhuhai Ruixu Electronic Technology CO., LTD

东莞市全测电子科技有限公司
ATS Electronic Technology Co., Ltd.

ATS Electronic Technology Co., Ltd.
3/F. of Building A, 1/F. of Building B &1/F. of
Building C, No.1, Hedong 3rd Road, Jinxia Community,
Chang'an, Dongguan, Guangdong, China

Tel: +86-769-38975958
Fax: +86-769-38975968

Web: www.dgats.com

Material Safety Data Sheet

1. Identification of the product and supplier	
Name of goods	LiFePO4 BATTERY
Type/Model	Lithi2-16 51.2V, 314Ah, 16kWh
Commissioned by	Zhuhai Ruixu Electronic Technology CO., LTD
Commissioner address	Building 1 4th Floor, No. 6, Chuangye North Road, Shuanglin Area, Liangang Industrial Zone, Hongqi Town, Jinwan District Zhuhai, Guangdong
Factory	Zhuhai Ruixu Electronic Technology CO., LTD
Factory's address	Building 1 4th Floor, No. 6, Chuangye North Road, Shuanglin Area, Liangang Industrial Zone, Hongqi Town, Jinwan District Zhuhai, Guangdong
Australian Importer	Business Name: The Trustee for Wysedata Trust Address: 8 Siggies Place, Upper Coomera, Queensland 4209, Australia Phone: +61 493 720 193 Email: chris@geckosolarvault.com.au Emergency Contact Phone: Felicity Addison +61 493 720 193
Inspection according to	EEC Directive 93/112/EC 联合国《关于危险品货物运输的建议书》 UN "Recommendations on the TRANSPORT OF DANGEROUS GOODS"
Emergency telephone call	+86-15019934220
Receiving date: 2025-06-06	Issue date: 2025-06-12

Tested by: **Reviewed by:** **Approved by:**

2. Composition/Information on Ingredient

Hazardous Ingredients (Chemical Name)	Concentration or concentration ranges (%)	CAS Number
Lithium Iron Phosphate	39.6	15365-14-7
Graphite	20.1	7782-42-5
Aluminum Alloy	7.0	--
Ethylence carbonate (EC)	6.0	96-49-1
Dimethyl carbonate(DMC)	6.0	616-38-6
Copper Foil	5.4	7440-50-8
Ethyl methyl carbonate (EMC)	4.9	623-53-0
Aluminum Foil	3.8	7429-90-5
Polyethylene	2.3	9002-88-4
Lithium hexafluorophosphate	2.3	21324-40-3
Styrene-butadiene rubber (SBR)	0.8	9003-55-8
Carbon black	0.8	1333-86-4
Poly (vinylidene fluoride)(PVDF)	0.7	24937-79-9
Sodium carboxymethylcellulose	0.3	9004-32-4

3. Hazards Identification

Explosive risk	This article does not belong to the explosion dangerous goods
Flammable risk	This article does not belong to the flammable material
Oxidation risk	This article does not belong to the oxidation of dangerous goods
Toxic risk	This article does not belong to the toxic dangerous goods
Radioactive risk	This article does not belong to the radiation of dangerous goods
Mordant risk	This article does not belong to the corrosion of dangerous goods
Other risk	This article is LiFePO4 BATTERY, Watt hour rate 16kWh, which belong to the Class 9 - Lithium Battery hazard goods.

4. First aid measures

Eye

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin

Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

Inhalation

Remove from exposure and move to fresh air immediately. Use oxygen if available.

Ingestion

Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

5. Fire-fighting measures

Flash Point: N/A.

Auto-Ignition Temperature: N/A.

Extinguishing Media: Water, CO_2.

Special Fire-Fighting Procedures:

Self-contained breathing apparatus.

Unusual Fire and Explosion Hazards:

Cell may vent when subjected to excessive heat-exposing battery contents.

Hazardous Combustion Products:

Carbon monoxide, carbon dioxide, lithium oxide fumes.

6. Accidental release measures

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

7. Handling and storage

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container.
Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire.
Do not crush or puncture the battery, or immerse in liquids.

Precautions to be taken in handling and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

8. Exposure controls/personal protection

Respiratory Protection

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

Ventilation

Not necessary under conditions of normal use.

Other Protective Clothing or Equipment

Not necessary under conditions of normal use.

Personal Protection is recommended for venting battery

Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

9. Physical and chemical properties

Appearance: Cuboid shape

Ref. No.: ATSU240410611

Odour: If leaking, smells of medical ether.

pH: Not applicable as supplied.

Flash Point: Not applicable unless individual components exposed.

Flammability: Not applicable unless individual components exposed.

Relative density: Not applicable unless individual components exposed.

Solubility (water): Not applicable unless individual components exposed.

Solubility (other): Not applicable unless individual components exposed.

10. Stability and reactivity

Stability: Product is stable under conditions described in Section 7.

Conditions to avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

Materials to avoid: Oxidising agents, alkalis, water.

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

Hazardous Polymerization: N/A.

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

11. Toxicological information

Signs & symptoms: None, unless battery ruptures.

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

Inhalation: Lung irritant.

Skin contact: Skin irritant

Eye contact: Eye irritant

Ingestion: Poisoning if swallowed

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

12. Ecological information

Mammalian effects: None known at present.

Eco-toxicity: None known at present.

Bioaccumulation potential: Slowly Bio-degradable.

Environmental fate: None known environmental hazards at present.

13. Disposal consideration

Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

14. Transport information

Label for conveyance: Class 9 lithium battery hazard label

UN Number: UN3480

EmS No: F-A, S-I

Marine pollutant: No

Packing Group: II

Land transport (ADR/RID): Class 9

Sea transport (IMDG): Class 9

Air transport (ICAO-TI/IATA DGR): Class 9

Proper Shipping name: Lithium ion batteries;

Hazard Classification: The goods shall be complied with the requirements of the UN38.3 test. And also complies with the P903 of IMDG CODE (Amdt 42-24) Edition.

15. Regulation information

Major applicable regulations for the transportation of lithium-ion cells and batteries are as follows:

The UN Model Regulations: United Nations ST/SG/AC.10/1/Rev.23. Recommendations on the Safe Transport of Dangerous Goods

The International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air Transport

The International Air Transport Association (IATA) Dangerous Goods Regulations (66th Edition 2025)

International Maritime Organization (IMO): International Maritime Dangerous Goods Code. (P903 of IMDG CODE (Amdt 42-24) Edition)

OSHA Hazard communication standard (29 CFR 1910)

√	Hazardous		Non-hazard

16. Other information

This file is only effective to the batteries provided by Zhuhai Ruixu Electronic Technology CO., LTD.The client provides the composition information of batteries, and promises its integrity and curacy. Users should read this file carefully, and use the batteries in correct method. ATS Electronic Technology Co., Ltd. doesn’t assume responsibility for any damage or loss cause of misuse of batteries.