



EVB Technology (HK) Limited

超霸科技(香港)有限公司

Material Safety Data Sheet

Model No.: GP18EVLf

Document Number: ERS1031

Revision:01

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IDENTITY (As Used on Label and List) Lithium Ion Rechargeable Batteries (Lithium Ferro Phosphate)	Note: Blank spaces are not permitted if any item is not applicable or no information is available, the space must be marked to indicate that.
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Section I – Information of Manufacturer

Manufacturer's Name EVB Technology (HK) Limited	Emergency Telephone Number 852-2484-3447
Address (Number, Street, City State, and ZIP Code) 4/F Gold Peak Building, 30 Kwai Wing Road, Kwai Chung, N.T. H.K.	Telephone Number for information 852-2484-3447
	Date of prepared and revision Dec. 14, 2009
	Signature of Preparer (optional)

Section II - Hazardous Ingredients / Identity Information

Hazardous Components:

Description:	CAS No.
Lithium Iron Phosphate	15365-14-17
(Watt Hour)	57.6Wh (by calculation)
Graphite	7782-42-5
Dimethyl Carbonate	616-38-6
Poly(vinylidene difluoride) (PVDF)	24937-79-9

Section III - Physical / Chemical Characteristics

Boiling Point N.A.	Specific Gravity (H ₂ O=1) N.A.
Vapor Pressure (mm Hg) N.A.	Melting Point N.A.
Vapor Density (AIR=1) N.A.	Evaporation Rate (Butyl Acetate) N.A.
Solubility in Water N.A.	
Appearance and Odor	Prismatic shape (For detail please refer to the drawing), odorless

Section IV – Hazard Classification

Classification

N.A.



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Section V – Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	

Incompatibility (Materials to Avoid)

Hazardous Decomposition or Byproducts

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry	Inhalation?	Skin?	Ingestion?
	N.A.	N.A.	N.A.

Health Hazard (Acute and Chronic) / Toxicological information

- In case of electrolyte leakage, skin will be itchy when contaminated with electrolyte.
- In contact with electrolyte can cause severe irritation and chemical burns.
- Inhalation of electrolyte vapors may cause irritation of the upper respiratory tract and lungs.

Section VII – First Aid Measures

First Aid Procedures

- If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately.
- If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15) minutes, and contact a physician.
- If electrolyte vapors are inhaled, provide fresh air and seek medical attention if respiratory irritation develops. Ventilate the contaminated area.

Section VIII - Fire and Explosion Hazard Data

Flash Point (Method Used)	Ignition Temp.	Flammable Limits	LEL	UEL
N.A.	N.A.	N.A.	N.A.	N.A.

Extinguishing Media

Carbon Dioxide, Dry Chemical or Foam extinguishers

Special Fire Fighting Procedures

N.A.

Unusual Fire and Explosion Hazards

- Do not dispose of battery in fire - may explode.
- Do not short-circuit battery - may cause burns.



Section IX – Accidental Release or Spillage

Steps to Be Taken in Case Material is Released or Spilled

Batteries that are leakage should be handled with rubber gloves.

Avoid direct contact with electrolyte.

Wear protective clothing and a positive pressure Self-Contained Breathing Apparatus (SCBA).

Section X – Handling and Storage

Safe handling and storage advice

Batteries should be handled and stored carefully to avoid short circuits.

Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries.

Never disassemble a battery.

Do not breathe cell vapors or touch internal material with bare hands.

Keep batteries between -30°C and 35°C for prolong storage.

Section XI – Exposure Controls / Person Protection

Occupational Exposure Limits: LTEP	STEP
N.A.	N.A.

Respiratory Protection (Specify Type)	N.A.
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Ventilation	Local Exhausts	Special
	N.A.	N.A.
	Mechanical (General)	Other
	N.A.	N.A.

Protective Gloves	Eye Protection
N.A.	N.A.

Other Protective Clothing or Equipment
N.A.

Work / Hygienic Practices
N.A.

Section XII – Ecological Information

N.A.

Section XIII – Disposal Method

Dispose of batteries according to government regulations.



Section XIV – Transportation Information

The GP Lithium Ion Batteries comply with the necessary testing requirement under the UN Manual of Tests and Criteria as referenced in the following transportation regulations:

1. UN Recommendation on the Transport of Dangerous Goods Model Regulation
2. U.S. Department of Transportation hazardous materials regulation (HMR)
3. International Civil Aviation Organization (ICAO) Technical Instruction
4. International Air Transport Association (IATA) Dangerous Goods Regulations
5. International Maritime Dangerous Goods (IMDG) Code

The designated batteries can meet all UN Testing requirements but contain more than 20Wh (Actual value showed in P.1) (See 49 CFR 173.185 of the U.S. HMR, Guidance on the Transport of the Lithium Batteries of 2009 – 2010 edition of the ICAO Technical Instructions and consequently the 50th edition of the DGR and IATA Dangerous Goods Regulations, and Special Provision 188 of the IMDG Code and UN Model Regulations.)

The Watthour (Wh) Calculation:

Under the 2009 – 2010 edition of the ICAO Technical Instructions and consequently the 50th edition of the DGR, the unit Wh is equal to rated capacity (Ah) x nominal voltage (V)

Batteries should be packaged in accordance with these transportation regulations. It is especially important to ensure that batteries are packed in such a way to prevent short circuits

Sea (IMO/IMDG)

UN number: 3480 (Proper Shipping Name: Lithium Ion Batteries)

Labeling: 9 Miscellaneous dangerous goods

Class: 9

Packaging group: II

Packing instruction: PI 965

Air (ICAO-IATA)

UN number: 3480 (Proper Shipping Name: Lithium Ion Batteries)

Labeling: 9 Miscellaneous dangerous goods

Class: 9

Packaging group: II

Cargo Aircraft: Packing instruction: PI 965, Max. net Quantity per package: 35kg

****The commodity is met the UN manual of Tests and Criteria, Part III, Sub-section 38.3****

Section XV – Regulatory Information

Special requirement be according to the local regulatory.

Section XVI – Other Information

The data in this Material Safety Data Sheet relates only to the specific material designated herein.