

GP Batteries

Material Safety Data Sheet

Model No.: 18650-33FP

Document Number: MSDS-18650-33FP-1

Revision:1

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IDENTITY (As Used on Label and List)
Lithium ion battery equipment

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.

Section 1- Identification

Product Name / Type / Model	Li-ion 18650 Rechargeable Battery 3.63V 3350mAh 12.16Wh
Manufacturer's name, address, telephone number	GP Battery Marketing Limited Address: 7/F, Building 16W, 16 Science Park West Avenue, Hong Kong Science Park, New Territories, Hong Kong Tel: +852-24843111
Emergency phone number	Within USA and Canada: 1800-424-9300 Outside USA and Canada: +703-527-3887
Date of prepared and revision	Jan 1, 2021

Section 2 – Hazards Identification

Classification: N/A

The watt-hour rate of the battery is 12.16Wh, which belong to the Lithium-ion batteries.

Section 3 – Composition/Information On Ingredients

INGREDIENT NAME	Chemical Formula	Cas No.	Wt %
Aluminum	Al	7429-90-5	5-8
Carbon	C	7440-44-0	15-20
Copper	Cu	7440-50-8	7-13
Lithium Cobaltate (LiCoO ₂)	LiCoO ₂	12190-79-3	25-35
Lithium Manganate (LiMn ₂ O ₄)	LiMn ₂ O ₄	12057-17-9	10-15
Nickel	Ni	7440-02-0	0.1-5
Polyvinylidene fluoride (PVDF)	(CH ₂ -CF ₂) _n	24937-79-9	0.1-5
Carboxymethyl cellulose (CMC)	[C ₆ H ₇ O ₂ (OH)2CH ₂ COONa] n	9004-32-4	0.1-5
Ethyl methyl carbonate	C ₃ H ₄ O ₃	96-49-1	1-10
Dimethyl carbonate	C ₃ H ₆ O ₃	616-38-6	1-15
Ethylene carbonate	C ₄ H ₈ O ₃	623-53-0	1-10
1,2-propaneslfone	C ₃ H ₆ O ₃ S	1120-71-4	0-0.5
Lead	Pb	7439-92-1	Not Detected
Cadmium	Cd	7440-43-9	Not Detected
Mercury	Hg	7439-97-6	Not Detected

Section 4 – First Aid Measures

a) Description of necessary measure, subdivided according to different routes of exposure, i.e., inhalation. Skin and eye contact, and ingestion

Inhalation	Fumes can cause respiratory irritation. Remove to fresh air and consult a physician.
Skin Contact	Immediately remove contaminated clothes, flush skin with soap and plenty of water. If itch or irritation by chemical burn persists, consult a physician.
Eye Contact	Immediately flush eye with flowing lukewarm water for a minimum of 15 minutes. Consult a physician immediately.
Ingestion	Take at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Consult a physician immediately.

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Section 5 – Fire-Fighting Measures

- a) Flash Point
N/A
- b) Auto-Ignition Temperature
N/A
- c) Suitable (and unsuitable) Extinguishing Media
Water, CO2
- d) Special Fire Fighting Procedures
Self-contained breathing apparatus.
- e) Unusual Fire and Explosion Hazards
Cell may vent when subjected to excessive heat-exposing battery contents.
- f) Hazardous Combustion Products
Carbon monoxide, carbon dioxide, lithium oxide fumes.

Section 6 – Accidental Release Measures

In case material is released or spills: if the battery material is released, remove operators from area until fumes dissipate. Provide maximum ventilation to clear our 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. 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. Use up the metal lithium inside the lithium metal battery, and delivered to professional institutions for further treatment.

Section 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 terminal, or over charger the battery, forced over-discharge, throw to fire.

Do not crush or puncture the battery or immerse in liquids.

Avoid mechanical or electrical abuse.

Storage preferably in cool, dry and ventilated area, which subject to little temperature change.

Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

The battery may explode or cause burns, if dissembled, crushed or exposed to fire or high temperature.

Section 8– Exposure Control / Person Protection

Respiratory protection:	In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Protection is not necessary under conditions of normal use.
Ventilation:	N/A
Protective Gloves:	N/A
Eye Protection:	N/A
Other Protective Clothing	N/A

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Section 9 - Physical / Chemical Properties

Appearance	Cylindrical		
Odour	If leaking, smells of medical ether		
Ref. No.	RZUN2019-2302		
Flash point	N/A	Flammability	N/A
Relative density	N/A	pH:	N/A
Solubility in Water	N/A	Solubility (Other)	N/A

Section 10 – Stability and Reactivity

Stable or Unstable:	Stable under condition described in section 7.
Material to avoid:	Oxidising agents, alkalis, water
Hazardous decomposition products:	Toxic fumes, and may form peroxides
Hazardous polymerization:	N/A
Conditions to avoid:	Avoid heat above 70°C or incinerate. Avoid electrical shorting, puncturing, deforming, mutilate, crushing, disassembling. Avoid expose over a long period to humid conditions.

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

Section 11 – Toxicological Information

Signs and 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.

Section 12 – Ecological Information

Mammalian effect: None known at present.

Eco-toxicity: None known at present.

Bioaccumulation potential: Slowly Bio-degradable.

Environmental fate: None known environmental hazards at present.

Section 13 – Disposal Considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

The battery may be regulated by national or local regulation. Please follow the instructions of proper regulation.

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.

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Section 14 – Transportation Information

Label for conveyance: Lithium Battery Mark, Class 9 – Lithium Battery hazard label, Cargo aircraft only label.

UN number: UN3480

Packaging Group: N/A

EmS No.: F-A, S-I

Marine pollutant: No

Proper Shipping name: Lithium ion batteries (Including lithium ion polymer batteries)

Hazard Classification: The goods are complied with the requirement of section IB of Packing Instruction 965 of 62th DGR Manual of IATA (20221 Edition), special provision 188 of IMDG CODE (Amdt. 40-20) 2016 Edition, including the passing of UN38.3 test.

Section 15 – Regulatory Information

Special requirement be according to the local regulations.

Section 16 – Other Information

The data in this Material Safety Data Sheet relates only to the specific material designated herein. However, the data is provided without any warranty; expressed or implied, regarding its correctness or accuracy. It is the user's responsibility to assume liability on loss, injury, damage, or expense resulting from improper use of this product. We urge you to make this information available as appropriate in your organization and to any others with whom you arrange to handle this product.