

POWER-XTRA

MATERIAL SAFETY DATA SHEET

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This sheet is provided as technical information only. The information and recommendations set forth are made in good faith and are believed to be accurate as of the date of preparation. However, *Power-Xtra* makes no warranty expressed or implied.

Section 1 - Product and Company Identification

Product Name: 502030 250 mAh Li-Polymer Battery	TEL: +86-755- 82581455
Power-Xtra GROUPE INTERNATIONAL LTD.	FAX: (+86) 755-61624235

Section 2 – Composition / Information on Ingredients

Component	CAS#	Content (wt%)
Lithium Cobalt Dioxide (LiCoO ₂)	12190-79-3	less than 6wt%
Lithium Hexafluorophosphate	21324-40-38	less than 5wt%
Polyvinylidene fluoride	24937-79-9	less than 7wt%
Carbonate Organic solvent	-	less than 18wt%
Graphite (C)	7782-42-5	less than 32wt%
Lead (Pb)*	7439-92-1	less than 0.1wt%(1000ppm)
Mercury (Hg)*	7439-97-6	less than 0.0005wt%(5ppm)
Steel		less than 42wt%
seal ring		less than 6wt%

*: Content information of banned or restricted material.

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Section 3 – Hazards Identification Including Emergency Overview

A lithium ion cell is normally stable under appropriate handling and storage conditions. If a lithium ion cell generates abnormal heat, leave away from the cell to avoid inhaling internal-materials. Chemicals which are contained in lithium ion cells, have some toxicity and it may cause irritation.

Section 4 - First Aid Measures

First-aid method for different exposure routes:

Inhalation: Not anticipated. If battery is leaking, contents may be irritating to respiratory passages. Remove to fresh air. Contact physician if irritation persists.

Skin: Not anticipated. If battery is leaking, immediately flush skin with plenty of water for at least 15 minutes. If irritation, injury or pain persists, consult a physician.

Eyes :Immediately flush eye with plenty of water for at least 15 minutes. Consult a physician

Ingestion: If swallowing a battery, consult a physician immediately.

If contents come into mouth, immediately rinse by plenty of water and consult a physician.

Section 5 - Fire Fighting Measures

Extinguishing Media: Plenty of water, Water fog spray, Dry chemical powder or Carbon dioxide. For incipient fires, carbon dioxide extinguishers are more effective than water.

Flammable Limits: N/A

Section 6 - Accidental Release Measures

Steps to be taken in case material is released or spilled:

Leave from contaminated area.

Near ignition source should be promptly removed.

Remove spilled electrolyte and batteries with absorbent not to contact with electrolyte.

Section 7- Handling and Storage

Never swallow. Never charge. Never heat. Never expose to open flame. Never disassemble. Never reverse the positive and negative terminals when mounting. Never short-circuit the battery. Never weld the terminal or wire to the body of the battery directly. Never use different batteries together. Never touch the liquid leaked out of battery. Never bring fire close to battery liquid. Store in cool, dry place.

Section 8 - Exposure Controls, Personal Protection

Respiratory Protection: SCBA(fire); Full-face respirator with particulate/organic cartridge(spill).

Ventilation: In p Natural or Butyl rubber gloves.

Eye Protection: Chem workers goggles

Work Hygienic Practices: Avoid exposure, wash hands after handling.

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Section 9 – Physical/Chemical Characteristics

Physical phase: Solid

Density (water=1): 1.5-2

Melting Point(°C): LiCoO₂(about 1100°C), Polyvinylidene fluoride (38°C), Carbonate Organic solvent(<0

Boiling Point(°C): Polyvinylidene fluoride (240°C) , Carbonate Organic solvent(100-130°C) Flash

Point(°C): Polyvinylidene fluoride (151°C) , Carbonate Organic solvent(21-33°C)

Specific Gravity: LiCoO₂ (5g/cm³),

Graphite(2.1g/cm³) Appearance: LiCoO₂ and

Graphite are black powder.

Section 10 - Stability and Reactivity

Stability	Stable
Incompatibility	Water
Hazardous Polymerization	Will not occur
Condition to avoid	See section 7
Hazardous Decomposition or Byproducts	Hydrogen

Section 11 - Toxicological Information

N/A

Section 12 - Ecological Information

Lithium ion cells and batteries can be disposable in accordance with appropriate federal, state and local regulations. However, we recommend recycling, since these cells and batteries contain recyclable material (LiCoO₂).

Section 13 - Disposal Consideration

Do not incinerate or subject cells and batteries to temperatures in excess of 100°C(212°F). Such handling may cause heat generation, explosion, or fire.

Section 14 - Transportation Information

Based on a United Nations recommendation, the regulation for lithium/lithium ion cells and battery has been revised in the International Air Transport Association (IATA) dangerous goods regulations (DGRRev. 59th.2018).

Packaging and transportation are formally regulated according to the watt-hour rating of the lithium ion batteries. Transportation of lithium ion batteries must conform to this regulation. All Power-Xtra lithium ion cell(Batteries)s meet packing instructions 965 Section II of IATA GDR and Special Provision 188 of the IMDG Code.

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Section 15 - Regulatory Information

Lithium battery international transportation rules. Based on a United Nations recommendation, the regulation for lithium/lithium ion cells and batteries has been revised in the ICAO technical Instructions for the safe transport of dangerous goods. Each cell or battery pack meets the requirements of each test in the UN Manual of Tests and Criteria III, sub section 38.3. The Cells / Batteries are "Not Restricted" Cargo.

IMO IMDG CODE according to special provision 188

IATA Dangerous Goods Regulations 59th Edition (2018)

Safety regulations for dangerous chemical goods.

Our products all follows above-mentioned regulations.

Section 16 - Other Information

For further information, please contact a Power-Xtra sales representative.