

## Section 1 - Identification of The Material and Supplier

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**Chemical nature:** Lithium-ion phosphate chargeable batteries.  
**Trade Name:** **Lithium-Ion Phosphate Chargeable Battery**  
**Product Codes:** A verity of codes – see table at the end of this SDS.  
**Product Use:** Chargeable battery for powering a wide range of equipment.  
**Creation Date:** **August, 2020**  
**This version issued:** **April, 2026** and is valid for 5 years from this date.  
**Poisons Information Centre: Phone 13 1126 from anywhere in Australia**

## Section 2 - Hazards Identification

### Statement of Hazardous Nature

Not classified as hazardous according to the Globally Harmonised System for classification and labelling of chemicals (GHS). No effect on skin contact, skin absorption, eye contact and inhalation under routine handling and use.

Potentially hazardous materials are sealed and contained in equipment. Equipment is packed in strong outer packaging to withstand normal handling and use. Exposure could occur if the equipment has been exposed to high temperatures, battery or cell have been opened, crushed, disassembled or burned. Keep away from heat.

### Handling and operational Safety

LFP batteries are always to be handled in accordance with the manufacturer's specifications. This is true particularly for complying with the limits for maximum current load, charging and end-pint voltages, and mechanical and thermal loads.

Usually, product packages are marketed that have always been matched. Such products are not modified or tampered with, since that could result in substantial safety hazards. Use only the charging process tailored to the respective cell type of a rechargeable battery.

### Safety Disposal

Store in a dry place. Store in a closed container. If they cannot be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

## Section 3 - Composition/Information on Ingredients

Physical Description & Colour: Black cuboid batteries.

Odour: No odour

Ingredients	CAS No	Conc, wt %
Lithium iron phosphate	15365-14-7	20-40
Lithium hexafluorophosphate	21324-40-3	10-20
Aluminium	7429-90-5	10-20
Graphite	7782-42-5	10-20
Copper	7440-50-8	7-13
Poly vinyl chloride	9002-86-2	1-5
Other non-hazardous ingredients	various	To 100

## Section 4 - First Aid Measures

**General Information:** You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Gently brush away excess particles. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

**Eye Contact:** Quickly and gently brush particles from eyes. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

## Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both) gases. Fire decomposition products from this product are likely to be toxic and corrosive if inhaled. Take appropriate protective measures.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, then evacuate personnel and call Fire Rescue emergency services on 000. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

## Section 6 - Accidental Release Measures

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC or Nitrile. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable dust mask.

Stop leak if safe to do so and contain spill. Because of the environmentally hazardous nature of this product, special care should be taken to restrict release to waterways or drains. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. Do not allow battery contents to come into contact with water due to the risk of dangerous reactions. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Although this is classed as a Dangerous Good, you may not need a license to store it. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

## Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: AS/NZS 1715, Protective Gloves: AS 2161, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS2210.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used where there is ventilation that is adequate to keep explosive gas partial pressures below the lower explosive limit (LEL). If passive ventilation is not adequate, use forced ventilation.

**Eye Protection:** Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

**Skin Protection:** We suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when lengthy skin contact is likely.

**Protective Material Types:** There is no specific recommendation for any protective material type.

**Respirator:** If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable dust mask

## Section 9 - Physical and Chemical Properties:

<b>Physical Description &amp; colour:</b>	Black Cuboid Batteries.
<b>Odour:</b>	No odour.
<b>Boiling Point:</b>	Not available.
<b>Freezing/Melting Point:</b>	No specific data. Solid at normal temperatures.
<b>Volatiles:</b>	No data.
<b>Vapour Pressure:</b>	No data.
<b>Vapour Density:</b>	Not applicable.
<b>Specific Gravity:</b>	No data.
<b>Water Solubility:</b>	Insoluble.
<b>pH:</b>	No data.
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	Not applicable.
<b>Coeff Oil/water Distribution:</b>	No data
<b>Viscosity:</b>	Not applicable.
<b>Autoignition temp:</b>	No data.

## Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to decompose under normal storage conditions. The self-discharge rate is ~3% per month. If you have any doubts, contact Battery Energy for advice on shelf-life properties.

Conditions to Avoid: Containers should be kept dry. Keep away from heat, flames and sparks.

Incompatibility: water, strong acids, strong bases, strong oxidizing agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Other explosive gasses may include ethylene and hydrogen. May form highly corrosive hydrofluoric acid, which can be fatal if inhaled, if swallowed, or in contact with skin.

**Polymerization:** This product will not undergo polymerization reactions.

## Section 11 - Toxicological Information

### Inhalation:

**Short Term Exposure:** Available data indicates that this product is not harmful. In addition, product is unlikely to cause any discomfort or irritation.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

### Skin Contact:

**Short Term Exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition, product is unlikely to cause any discomfort in normal use.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

### Eye Contact:

**Short Term Exposure:** This product is believed to be not irritating to eyes.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

### Ingestion:

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. Available data shows that this product is not harmful. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

### Carcinogen Status:

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

## Section 12 - Ecological Information

Insufficient data to be sure of status.

### Section 13 - Disposal Considerations

**Disposal:** This product may be recycled if unused, or if it has not been contaminated to make it unsuitable for its intended use. Disposal by untrained personnel may cause a dangerous incident, we recommended you can contact in Australia: Environmental Treatment Solutions: ([Home | Environmental Treatment Solutions](#)) Tel: 1300 133 583. If you are not in Australia, please contact with your local recycling site.

### Section 14 - Transport Information

**Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.**

**UN Number:** 3480, LITHIUM-ION BATTERIES

**Hazchem Code:** 4W

**Special Provisions:** 188, 230

**Limited quantities:** ADG 7 specifies a Limited Quantity value of NONE for this class of product.

**Dangerous Goods Class:** Class 9: Miscellaneous Dangerous Goods.

**Packing Group:** II

**Packing Instruction:** P903

Class 9 Miscellaneous Dangerous Goods shall not be loaded in the same vehicle or packed in the same freight container with Dangerous Goods of Class 1 (Explosives).

**NOTE:** The above applies to batteries shipped as separate items. UN Number 3481 applies to these batteries when installed inside equipment and devices as a power source.

### Section 15 - Regulatory Information

**AICS:** This product is compliant with NICNAS regulations.

### Section 16 - Other Information

**This SDS contains only safety-related information. For other data see product literature.**

#### Acronyms:

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

#### Product Codes:

Item Codes	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Normal Capacity
BE-LFP 48V115Ah Gen 4	545	442	133	52	115 Ah
BE-LFP 48V100Ah Gen 3	530	167	320	47	100 Ah
BE-LFP 48V20Ah	245	442	88	13.4	20 Ah
BE-LFP 48V105Ah	509	222	280	47	105 Ah