
# Material Safety Data Sheet

Energy Storage Battery System
B5000 Series

Version: V1.0
2025-08-23

## Section 1-Chemical Product and Company Identification

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|---|---|---|---|---|---|---|
| Product Name： | Energy Storage Battery System ( contain lithium ion batteries ) | | | | | |
| Model： | B5000-2S | B5000-3S | B5000-4S | B5000-5S | B5000-6S | B5000-7S |
| Trade Mark： | BLUETTI | | | | | |
| Ratings： | 14.75 kWh | 22.12 kWh | 29.50 kWh | 36.87 kWh | 44.24 kWh | 51.61 kWh |
| Weight： | 163 kg | 235 kg | 307 kg | 379 kg | 451 kg | 523 kg |
| Manufacturer： | SHENZHEN POWEROAK NEWENER CO., LTD | | | | | |
| Manufacturer Address： | F19, BLD No.1, Kaidaer Tongsha Rd No.168, Xili Street, Nanshan Shenzhen China | | | | | |
| Emergency Telephone： | +86-752-5192099 | | | | | |
| Importer： | BLUETTI ENERGY PTY LTD | | | | | |
| Importer Address: | Unit 15, 25 Gibbes Street, Chatswood NSW 2067 | | | | | |
| Contacts： | Tiger Han | | | | | |
| Telephone | 0488801566 | | | | | |
| Email： | tiger.han@bluetti.com | | | | | |
| Other information | B700 is the battery module for the B5000-2S, B5000-3S, B5000-4S, B5000-5S, B5000-6S and B5000-7S | | | | | |

## Section 2- Hazards Identification

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| Hazard label | Class 9- Lithium batteries |
| 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. |

## Section 3 – Composition and information on ingredients

| Material or ingredient | Chemical Formula | CAS No. | Weight (%) |
|---|---|---|---|
| Lithium Iron Phosphate | $LiFePO_4$ | 15365-14-7 | 38.4 |
| Graphite | C | 7782-42-5 | 19.4 |
| Separator | $(C_2H_4)_n$ | 9003-07-0 | 2.6 |
| Aluminum Foil | Al | 7429-90-5 | 3.7 |
| Copper | Cu | 7440-50-8 | 6.5 |
| Aluminum Alloy | Al | 7429-90-5 | 5.6 |
| Styrene-butadiene rubber（SBR） | $(C_8H_8.C_4H_6)_n$ | 9003-55-8 | 0.4 |
| Carbon black | C | 1333-86-4 | 0.3 |

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| Poly（vinylidene fluoride）(PVDF) | $(CH_2CF_2)n$ | 24937-79-9 | 0.8 |
| Ethylene carbonate(EC) | $C_3H_4O_3$ | 96-49-1 | 5.4 |
| Ethyl methyl carbonate(EMC) | $C_4H_8O_3$ | 623-53-0 | 12.8 |
| Vinylene Carbonate(VC) | $C_3H_2O_3$ | 872-36-6 | 0.2 |
| Lithium Difluorophosphate | $LiPO_2F_2$ | 24389-25-1 | 0.2 |
| 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**

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

**Section 5 – Firefighting measures**

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| Flash Point | Not applicable |
| Auto-Ignition Temperature | Not applicable |
| Extinguishing Media | $H_2O$, $CO_2$ |
| 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. |

**Section 6 – Accidental release measures**

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| Personal precautions, protective equipment and emergency procedures: | If the battery is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The preferred response is to leave the area and allow the vapors to dissipate, Avoid skin and eyes contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerated. If leakage of the battery happens, liquid could be absorbed by using sand, earth or other inert substance and contaminated area should be ventilated meantime. |
| Environment precautions: | Do not allow product to reach sewage system or any water source. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water. |
| Methods and material for containment and | If battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose of |

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| cleaning up: | according to the local law and rules, avoid leached substances to get into the earth, canalization or waters. |

**Section 7– Handling and storage**

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| Handling | 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.<br>Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire.<br>Do not crush or puncture the battery, or immerse in liquids. |
| Storage | 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.<br>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 |

**Section 8 – Exposure controls and personal protection**

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| Engineering Controls | Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.<br>Keep away from heat and open flame. Store in a cool, dry place. |
| Personal Protective Equipment | Respiratory Protection: Not necessary under normal conditions.<br>Skin and body Protection: Not necessary under normal conditions, Wear suitable protective clothing and gloves if handling an open or leaking battery.<br>Personal Protective Equipment<br>Hand protection: Wear suitable gloves if handling an open or leaking battery.<br>Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery. |
| Other Protective Equipment | Have a safety shower and eye wash fountain readily available in the immediate work area. |
| Hygiene Measures | Do not eat, drink, or smoke in work area. Maintain good housekeeping. |

**Section 9 – Physical and chemical properties**

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| Physical state | Solid |
| Color | White and grey |
| Odour | If leaking, smells of medical ether. |
| Melting point/freezing point | Not applicable |
| Boiling Point and Boiling range | Not Applicable |
| Flammability | Not Applicable |
| Lower and upper explosion limit/flammability limit | Not Applicable |
| Flash point | Not Applicable |
| Auto-ignition temperature | Not applicable |

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| Decomposition temperature | Not applicable |
| pH | Not applicable |
| Kinematic viscosity | Not applicable |
| Solubility in water | Not applicable |
| Partition coefficient: n-octanol/water (log value) | Not applicable |
| Vapour pressure | Not applicable |
| Density and/or relative density | Not applicable |
| Relative vapour density | Not applicable |
| Particle characteristics | Not applicable |

**Section 10 – Stability and reactivity**

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| Stability | The product is stable under conditions described 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. |
| Incompatible Materials | Oxidants, acids, bases Oxidizing agents, acid, base. |
| Hazardous Decomposition Products | Carbon monoxide, carbon dioxide, lithium oxide fumes. |
| Possibility of Hazardous Reaction | Not applicable |
| Other information | If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated Hydrocarbons |

**Section 11 – Toxicological information**

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| Irritation | Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur. |
| Sensitization | Not applicable |
| Neurological Effects | Not applicable |
| Teratogenicity | Not applicable |
| Reproductive Toxicity | Not applicable |
| Mutagenicity (Genetic Effects) | Not applicable |
| Toxicologically Synergistic Materials | Not applicable |

**Section 12 – Ecological information**

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| Ecological Toxicity | None known at present |
| Mammalian effects: | None known at present |

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| Mobility in soil | None known at present |
| Persistence and Degradability | None known at present |
| Bioaccumulation potential | Slowly Bio-degradable |
| Other Adverse Effects | None known at present |

**Section 13 – Disposal considerations**

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| Product disposal recommendation | Do not incinerate, or subject cells to temperatre in excess of 70℃, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations . |
| Packaging disposal recommendation | Disposal must be made according to official regulations |

**Section 14 – Transport information**

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| Label for conveyance | Lithium Battery Label | |
| UN Number | UN 3480 | |
| Marine pollutant | No | |
| Transport hazard class | 9 | |
| Packing group number | 965 or 956 | II |
| | 967 | -- |
| UN Proper shipping name | Lithium ion Batteries (Including lithium ion polymer batteries)<br>Lithium ion Batteries packed with equipment (Including Lithium ion polymer batteries)<br>Lithium ion Batteries contained in equipment (Including lithium ion polymer batteries) | |
| ICAO/IATA | Can be shipped by air in accordance with international Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA) DGR 64th Packing Instructions Section IA of 965 or Section I of 966～967 appropriately. | |
| IMDG CODE | International Maritime Dangerous Goods Code IMDG CODE (Amdt 41-22) | |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road | |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail | |
| Regulations concerning the International Carriage of Dangerous Goods by Rail | | |

**Section 15 – Regulatory information**

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| Dangerous Goods Regulations |
| Recommendation on the Transport of Dangerous Goods Model Regulations |
| International Maritime Dangerous Goods |
| Technical Instructions for the Safe Transport of Dangerous Goods |
| Classification and code of dangerous Goods |
| Consumer Product Safety Act |

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| Federal Environmental Pollution Control Act |
| Resource Conservation and Recovery Act |
| European Agreement concerning the International Carriage of Dangerous |
| Regulations concerning the International Carriage of Dangerous |
| In according with all Federal, State and local laws. |

**Section 16 – Any other relevant information**

The information above is believed to be accurate and represents the best information currently available to us. However, concorde makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. This material safety data sheet provides guidelines for the safe handling and use of this product.It does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.