

SAFETY DATA SHEET

Prepared in accordance with the GHS / OSHA HCS 29 CFR 1910.1200 format



AERO-JOLT

Portable Ground Power Unit, Model AJ-2026

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SECTION 1. IDENTIFICATION

Product Identifier	Aero-Jolt™ Portable Ground Power Unit
Product Code	AJ-2026
Product Type	Sealed lithium-ion battery integrated in a portable ground power unit (finished article)
Cell Chemistry	Lithium iron phosphate (LiFePO ₄), Nanophosphate®
Recommended Use	Aircraft engine starting and avionics support on the ground
Use Restrictions	Not for continuous-duty power supply. Not for consumer or general-purpose battery use. Use only with the supplied AC charger.
Manufacturer	Air Mount Technic Co., Ltd.
Address	168/1 Moo 12, Bueng Kham Phroi, Lumlukka, Pathum Thani 12150, Thailand
Telephone (General)	+66 (0) 61-131-1301
Email	info@airmount-technic.com
Emergency Telephone	Contact local emergency services first. For chemical / transport emergency, refer to the carrier or country emergency response number (e.g., CHEMTREC +1-703-527-3887 outside the U.S.).

SECTION 2. HAZARD IDENTIFICATION

Under normal conditions of use, the Aero-Jolt is a sealed finished article and the internal materials are not accessible. It is not classified as a hazardous substance or mixture under GHS / OSHA HCS. The hazards described below apply if the battery is mechanically damaged, opened, exposed to fire, or otherwise abused.

GHS Classification (Sealed Article in Normal Use)

Not classified.

Potential Hazards if Damaged or Abused

WARNING — IF THE BATTERY IS DAMAGED

Risk of fire, thermal runaway, and rupture if mechanically deformed, punctured, short-circuited, overcharged, or exposed to temperatures above 60 °C.

Risk of skin and eye irritation from leaked electrolyte.

Risk of inhalation hazard from vented gases (carbon monoxide, hydrogen fluoride, organic carbonate vapors).

High-current short circuit may cause arcing, sparks, and ejection of hot fragments.

Pictograms (if hazards realized)

GHS02 (flame) · GHS05 (corrosion, for leaked electrolyte) · GHS07 (exclamation mark, irritation)

Signal Word

Warning**Hazard Statements (applicable only if integrity is compromised)**

- H315 — Causes skin irritation (from leaked electrolyte).
- H319 — Causes serious eye irritation (from leaked electrolyte).
- H335 — May cause respiratory irritation (from vented gases).
- H400 — Very toxic to aquatic life (if released to waterways).

Precautionary Statements

- P210 — Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
- P234 — Keep only in original container. Do not disassemble.
- P260 — Do not breathe vapors from a damaged unit.
- P273 — Avoid release to the environment. Recycle through authorized channels.
- P301 + P310 — IF SWALLOWED: Immediately call a POISON CENTER / doctor.
- P370 + P378 — In case of fire: Use copious water to cool, CO₂, or dry chemical to extinguish.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

The Aero-Jolt is a finished article containing a sealed lithium-ion battery pack and electronic components. The constituents below are listed for reference; they are not normally accessible to the user. Percentages by mass are approximate and refer to the battery pack only.

COMPONENT	CAS NO.	APPROX. % W/W	FUNCTION
Lithium iron phosphate (LiFePO ₄)	15365-14-7	25–35%	Cathode active material
Graphite (natural / synthetic)	7782-42-5	15–20%	Anode active material
Aluminum foil	7429-90-5	3–6%	Cathode current collector
Copper foil	7440-50-8	6–10%	Anode current collector
Lithium hexafluorophosphate (LiPF ₆)	21324-40-3	1–3%	Electrolyte salt
Ethylene carbonate (EC)	96-49-1	3–7%	Electrolyte solvent
Dimethyl carbonate (DMC)	616-38-6	3–7%	Electrolyte solvent
Ethyl methyl carbonate (EMC)	623-53-0	3–7%	Electrolyte solvent
Polyolefin separator (PE / PP)	Mixture	2–4%	Cell separator
Steel / nickel-plated steel casing	7439-89-6 / 7440-02-0	12–18%	Cell housing
Engineering thermoplastic (case)	Proprietary	5–10%	Outer enclosure
Electronic components (PCB, BMS, display)	Mixture	2–5%	Control and monitoring

Constituent concentrations are characteristic of commercial LiFePO₄ 26650 cells (Lithium Werks ANR26650M1B class) and may vary by production lot. The Aero-Jolt pack contains approximately 56–64 individual cells in an 8-series configuration.

SECTION 4. FIRST-AID MEASURES

First-aid measures apply only if the battery is damaged, ruptured, or burning and the user is exposed to leaked electrolyte or vented gases.

Inhalation

Remove the affected person to fresh air. Keep them at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash the affected skin thoroughly with soap and large amounts of water for at least 15 minutes. Seek medical attention if irritation persists.

Eye Contact

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.

Ingestion

Do not induce vomiting. Rinse the mouth with water. If the person is conscious, give plenty of water to drink. Seek immediate medical attention.

Most Important Symptoms

- Skin and eye irritation, redness, and burning from electrolyte contact.
- Coughing, headache, dizziness, and nausea from inhalation of decomposition gases.
- Thermal burns from contact with a venting or burning cell.

Note to Physician

In case of electrolyte exposure, consider hydrogen fluoride (HF) exposure protocols. Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

- Copious quantities of water (recommended for cooling the cells and preventing thermal-runaway propagation).
- Carbon dioxide (CO₂), dry chemical, or foam for small incipient fires.

Unsuitable Extinguishing Media

- Class D extinguishers intended for lithium metal are not required for lithium-ion (LiFePO₄) batteries.
- Limited amounts of water on a hot, intact cell may be insufficient — use enough water to cool the pack thoroughly.

Specific Hazards Arising from the Battery**DECOMPOSITION PRODUCTS**

Hydrogen fluoride (HF) — corrosive, toxic by inhalation.
Carbon monoxide (CO) and carbon dioxide (CO₂).
Lithium oxide and metal-oxide fumes.
Organic carbonate vapors and combustion products.
Burning cells may vent or eject hot fragments.

Special Protective Equipment for Firefighters

- Self-contained breathing apparatus (SCBA) with full-face mask in positive-pressure mode.
- Full structural firefighting protective clothing.

Fire-Fighting Procedures

- Move the unit to a safe location only if it can be done without risk.
- Cool affected and surrounding batteries thoroughly with water; continued cooling may be required for an extended period after visible flame is suppressed (re-ignition risk).
- Avoid direct contact and inhalation of smoke and vapors.
- Contain runoff to prevent contamination of waterways.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

- Evacuate non-essential personnel from the area.
- Wear appropriate PPE (see Section 8) before approaching a damaged unit.
- Eliminate sources of ignition; ventilate the area.
- Do not touch leaked electrolyte with bare skin.

Environmental Precautions

- Prevent runoff of leaked electrolyte to drains, waterways, or soil.
- Notify authorities in accordance with local regulations if a release reaches the environment.

Containment and Clean-Up

- Place the damaged unit in a non-combustible, non-conductive container (e.g., metal drum lined with sand or vermiculite). Do not seal a venting unit — use a vented container.
- Absorb leaked liquid with an inert dry material (vermiculite, sand, or earth). Do not use combustible absorbents (sawdust, paper towels).
- Place absorbed material in a sealed, labelled container for disposal by a licensed hazardous-waste handler.
- Decontaminate surfaces with a solution of sodium bicarbonate followed by water.

SECTION 7. HANDLING AND STORAGE**Precautions for Safe Handling**

- Do not drop, puncture, crush, disassemble, modify, or short-circuit the unit.
- Do not expose to fire, sparks, or temperatures above 60 °C (140 °F).
- Do not immerse in water or other liquids.
- Use only with the supplied AC deep-cycle charger. Third-party chargers may damage the battery management system.
- Keep terminals clean and free of conductive debris.
- Inspect the case, cable, and connector before each use; remove from service if damage is found.

Conditions for Safe Storage

- Store indoors in a dry, ventilated space, ideally at 10–30 °C (50–85 °F).
- For storage longer than 30 days, charge the unit to approximately 60% before storing; top up to 60% every 3 months thereafter.
- Do not store in a vehicle in summer heat, in an unheated hangar in winter, or in any environment where the temperature may fall outside the operating range.
- Keep away from sources of ignition and strong oxidizers.
- Do not stack heavy objects on the case; prolonged compression can damage the display.

Incompatible Materials

Open flames, hot surfaces, conductive materials at the terminals, strong oxidizers, water immersion.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

In normal use the Aero-Jolt is a sealed article and there is no foreseeable exposure to its internal constituents. Exposure controls and PPE listed below apply when handling a damaged, leaking, or burning unit.

Engineering Controls

- General mechanical ventilation is adequate for normal handling.
- Use local exhaust ventilation or work outdoors when handling a damaged unit.

Personal Protective Equipment (for Damaged Units)

- Eye/Face: chemical safety goggles, face shield.
- Hands: chemical-resistant gloves (nitrile or neoprene).
- Body: long sleeves, lab coat, or chemical-resistant apron.
- Respiratory: NIOSH-approved respirator with organic-vapor and acid-gas cartridges if vapors are detected; SCBA in fire conditions.
- Footwear: closed-toe, non-conductive safety footwear.

Occupational Exposure Limits

No occupational exposure limits are established for the article. For individual constituents (e.g., LiPF₆, organic carbonates), refer to authoritative SDS data from the cell manufacturer and applicable national OEL tables.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid finished article (sealed enclosure containing battery and electronics)
Appearance	Rectangular yellow case with black accents, integrated handle, touchscreen display

Odor	None under normal conditions
pH	Not applicable for the sealed article; leaked electrolyte is acidic (pH < 3)
Melting / Freezing Point	Not applicable for the assembled article
Flash Point	Not applicable for the sealed article; individual electrolyte solvents are flammable (flash points typically 18–40 °C)
Density	Approximately 0.55 g/cm ³ (calculated from total volume and mass)
Water Solubility	Insoluble (sealed article); leaked electrolyte solvents are partially miscible with water
Vapor Pressure	Not applicable for the sealed article
Auto-Ignition Temperature	Cell thermal runaway onset: ≥ 210 °C (LiFePO ₄ chemistry)
Nominal Output Voltage	28 V DC, regulated
Pack Capacity	19 Ah (approximately 500 Wh)
Operating Temperature	–20 °C to 60 °C

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions of use.

Chemical Stability

The sealed battery pack is chemically stable under recommended handling, storage, and transport conditions.

Possibility of Hazardous Reactions

Thermal runaway, venting, or fire may occur if the unit is subjected to mechanical abuse, overcharge, external short circuit, immersion in water, or temperatures above 60 °C. LiFePO₄ chemistry exhibits a higher thermal-runaway onset temperature (≥ 210 °C) and lower energy-release characteristic than cobalt- or nickel-based lithium-ion chemistries.

Conditions to Avoid

- Mechanical damage, crushing, puncture, or disassembly.
- Overcharge above the BMS's safe envelope; use only the supplied charger.
- External short circuit of the output connector or charging port.
- Exposure to temperatures above 60 °C or below –20 °C.
- Immersion in water, fuel, or solvents.
- Direct exposure to open flame.

Incompatible Materials

Oxidizing agents, conductive materials at terminals, open flames.

Hazardous Decomposition Products

Thermal decomposition can produce hydrogen fluoride (HF), carbon monoxide (CO), carbon dioxide (CO₂), lithium oxides, and organic vapors derived from electrolyte solvents.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicological data for the sealed article are not available. Information below summarizes the hazards of the major internal constituents that would be released only if the article is damaged.

Likely Routes of Exposure (Damaged Unit Only)

Inhalation of vented gases, skin contact with leaked electrolyte, eye contact, accidental ingestion.

Acute Health Effects

- Skin: leaked electrolyte (LiPF₆ in carbonate solvents) is irritating and corrosive on prolonged contact.
- Eyes: severe irritation and potential corneal injury on direct contact.

- Inhalation: cough, sore throat, headache, dizziness. HF exposure from heated cells can cause delayed pulmonary damage.
- Ingestion: irritation of the gastrointestinal tract, nausea.

Chronic Effects

No chronic toxicity data are available for the sealed article. Repeated exposure to leaked constituents may cause sensitization.

Carcinogenicity / Mutagenicity / Reproductive Toxicity

No constituents of this product are classified as carcinogens by IARC, ACGIH, NTP, or OSHA at levels present in the sealed pack.

Aspiration Hazard

Not applicable to the sealed article.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

The constituents of the battery may be harmful to aquatic life if released to the environment in concentrated form. Damaged units must not be discarded with general refuse and must not be allowed to enter drainage, soil, or water.

Persistence and Degradability

Metals (lithium, iron, copper, aluminum) are persistent. Organic carbonate electrolyte solvents are biodegradable in low concentrations. The plastic enclosure persists in the environment.

Bioaccumulative Potential

Some metal constituents have the potential to bioaccumulate if released as soluble compounds.

Mobility in Soil

Mobility from the sealed article is negligible. Leaked electrolyte is mobile in soil and water.

Other Adverse Effects

No additional adverse environmental effects are known.

SECTION 13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

- Do not dispose of the Aero-Jolt or its internal battery as general waste.
- Do not incinerate. Do not crush, puncture, or otherwise damage prior to disposal.
- Return to Air Mount Technic, an authorized service center, or a licensed lithium-battery recycler.
- In the United States, follow EPA Universal Waste regulations (40 CFR 273) for end-of-life lithium-ion batteries where applicable.
- In the European Union, return through a registered take-back scheme under the EU Battery Regulation.
- Insulate exposed terminals (e.g., with non-conductive tape) before transport to a collection point.

Contaminated Packaging

Dispose of contaminated packaging in accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

The Aero-Jolt contains a lithium-ion battery and is regulated as a Class 9 dangerous good for transport. The unit has been tested in accordance with the United Nations Manual of Tests and Criteria, Part III, Section 38.3.

UN Number	UN 3480
Proper Shipping Name	Lithium ion batteries
Transport Hazard Class	9 (Miscellaneous dangerous substances and articles)
Packing Group	Not assigned (Class 9 lithium batteries)
Hazard Label	Class 9A (lithium battery)

Watt-Hour Rating	Approximately 500 Wh (19 Ah × 26.4 V nominal pack)
UN 38.3 Test Status	Tested and compliant
IATA (Air)	PI 965 — Section I. Cargo aircraft only when shipped alone. Refer to current IATA Dangerous Goods Regulations.
IMDG (Sea)	Class 9, packed in accordance with IMDG Code.
ADR / RID (Road / Rail)	Class 9, special provision 188, 230, 376 as applicable.
49 CFR (U.S. DOT)	Hazardous Material Class 9, UN 3480.

Damaged, defective, or recalled batteries (including units involved in incidents) must be shipped under UN 3171 / UN 3480 special provisions for damaged batteries (e.g., IATA PI 956). Consult a qualified dangerous-goods specialist before shipping any compromised unit.

SECTION 15. REGULATORY INFORMATION

United States

- TSCA (Toxic Substances Control Act): all intentional ingredients listed on the TSCA inventory or exempt as components of an article.
- CPSC: not a consumer product subject to the Federal Hazardous Substances Act for the article in normal use.
- DOT: see Section 14 (Transport).

European Union

- REACH (EC 1907/2006): the article does not intentionally release substances under normal conditions of use; ingredient suppliers are responsible for registration where applicable.
- EU Battery Regulation: end-of-life return through registered take-back scheme.
- RoHS (2011/65/EU): compliant at cell and pack level.

Canada

- WHMIS / HPR: not classified for the sealed article in normal use.

China

- GB/T 31485 and related lithium-battery standards apply to cell-level certification.

Cell-Level Certifications (Source: Lithium Werks 26650 Data Sheet)

- UL 1642, UL 1973, IEC 62133-2 (safety).
- UN 3480 / UN 38.3 (transport).
- REACH, RoHS, ISO 14001 (environmental).

SECTION 16. OTHER INFORMATION

Date of Issue	2026
Revision Number	1 (initial release)
Prepared By	Air Mount Technic Co., Ltd.
SDS Format	GHS 16-section / OSHA HCS 29 CFR 1910.1200

Abbreviations

BMS — Battery Management System. CAS — Chemical Abstracts Service. GHS — Globally Harmonized System. HCS — Hazard Communication Standard. IATA — International Air Transport Association. IMDG — International Maritime Dangerous Goods. LFP / LiFePO₄ — Lithium iron phosphate. NIOSH — National Institute for Occupational Safety and Health. PI — Packing Instruction. PPE — Personal Protective Equipment. SCBA — Self-Contained Breathing Apparatus. SDS — Safety Data Sheet. SOC — State of Charge. UN — United Nations.

Key References

- Lithium Werks 26650 Nanophosphate® Power Cell Data Sheet (ANR26650M1B), Rev. 3, December 2025.

- UN Manual of Tests and Criteria, Part III, Section 38.3 (current revision).
- OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- IATA Dangerous Goods Regulations (current edition).

DISCLAIMER

The information in this Safety Data Sheet has been compiled from sources believed to be reliable and represents the best information currently available to Air Mount Technic Co., Ltd. on the safety and handling of this product. It is intended to describe the product for the purposes of safety in handling, use, storage, transport, and disposal, and is not to be considered a warranty or quality specification.

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