SDS Safety Datasheet

LogiBatt 2460

Part no.: 986760

Revision

March 2025

www.milanordic.dk

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Product & Manufacturer Information

Product Name	LogiBatt 2460
Part Number	986760
Battery Type	Rechargeable Lithium Iron Phosphate ($LiFePO_4$) Battery Pack
Nominal Voltage	25.6 V
Nominal Capacity	60Ah
Nominal Energy	1.54 kWh
Battery Cell Type	EVE C40 $LiFePO_4$ Cell, 3.2 V, 20 Ah
Chemical System	LiFePO4 / Graphite / Organic Electrolyte
Battery Pack Manufacturer Address	Frederiksborgvej 399, Bygning 108, 4000 Roskilde, Danmark
Cell Manufacturer	EVE ENERGY CO.,LTD.
Cell Manufacturer Address	No.38, Huifeng 7th Road, Zhongkai Hi-tech Zone, Huizhou, Guangdong, China

Emergency Call:

- MILA Nordic: Available Mon–Fri 08:00–16:00 CET.
- Outside these hours, contact local emergency services.

Language availability:

This Safety Data Sheet is provided in English for general access. Please contact MILA Nordic at info@milanordic.dk for a local language copy.

Battery Chemistry & Composition

Constituent Materials (including hazardous components)	Chemical Formula	CAS No:	Weight (%)
Lithium iron phosphate	LiFePO4	15365 - 14 - 7	35 - 45
Graphite	C	7782 - 42 - 5	15 - 30
Ethylene Carbonate	EC	96 - 49 - 1	2 - 6
Dimethyl Carbonate	DMC	616 - 38 - 6	2 - 6
Lithium Hexafluorophosphate	LiPF6	21324 - 40 - 3	2 - 6
Aluminium	Al	7429 - 90 - 5	8 - 12
Copper	Cu	7440 - 50 - 8	8 - 11
Polyethylene	-[Ch2]n-	9002 - 88 - 4	3
Polyvinylidene Fluoride	PVDF	24937 - 79 - 9	0.2 - 5
Styrene-Butadiene Rubber (Binder)	SBR	9003 - 55 - 8	<1
Carboxymethyl Cellulose (Binder)	CMC	9004 - 32 - 4	<1

⚠️ Note: The electrolyte consists of $LiPF_6$ salt dissolved in a flammable solvent mixture of EC and DMC. Leakage may release hazardous vapors.

Hazards Identification

Not classified as hazardous under Regulation (EC) No 1272/2008 (CLP) when used as an article under normal conditions.

Other Hazards

- Internal components (e.g., electrolyte and electrode materials) are hazardous if released.
- The electrolyte contains flammable organic solvents and $LiPF_6$, which can decompose to form harmful gases (e.g., hydrogen fluoride) upon contact with water or humidity.
- If damaged, the battery may vent flammable vapors and present a fire or chemical burn hazard.
- Classified as UN3480, Class 9 Dangerous Goods, due to lithium content and energy capacity.

Under normal use conditions, the battery does not pose an explosion hazard. It is designed with integrated protection mechanisms to prevent thermal runaway and excessive pressure buildup.

Emergency First Aid Procedures

Eye	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention, especially if irritation or blurred vision persists.
Skin	Remove contaminated clothes and rinse skin with plenty of water. Electrolyte may cause chemical burns - seek medical attention for persistent redness or irritation.
Inhalation	Remove from exposure and move to fresh air immediately. Provide oxygen if needed and seek medical attention.
Ingestion	Rinse mouth with water, and seek medical attention. Do not induce vomiting unless instructed by medical personnel.

Fire Response & Extinguishing Methods

Flash Point	Not applicable to assembled battery.
Auto-Ignition Temperature	Not applicable.
Extinguishing Media	Dry chemical, Class D fire extinguisher, or CO_2. Use water only to cool surrounding equipment, not for direct extinguishing of battery fire.
Special Fire Fighting Procedures	Self-contained breathing apparatus, protective gloves, goggles or protective glasses. Protective clothing. Fight fire from a safe distance due to risk of vapor release or cell rupture.
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.

⚠️ *Note: Electrolyte solvents (ethylene carbonate and dimethyl carbonate) have flash points of 25°C and ~18°C, respectively, and may form flammable vapor-air mixtures if released.*

Spill or Leak Procedures

Steps to be Taken in case Material is Released or Spilled	• Evacuate the area and ventilate until all vapors have dissipated. • If safe to do so, place the battery in a fire-resistant container. • Use absorbent materials for spilled liquid. Collect residues in sealed metal containers. • Avoid inhalation of fumes and direct contact with any leaked material. • Do not attempt to reuse a damaged or leaking battery. • Notify appropriate hazardous materials personnel if leakage is extensive.
Waste Disposal Method	• Used or damaged batteries must be disposed of in accordance with local, national, and international environmental regulations. Do not incinerate, crush, or dispose of in general household waste or landfill. Batteries must be collected by an authorized recycling or hazardous waste facility. Fully discharge before disposal, if possible.

Handling, Usage, and Storage Guidelines

General Safety Instructions	• Do not open, disassemble, incinerate, or subject the battery to mechanical abuse (crushing, puncturing), as this may cause leakage, fire, explosion, or exposure to hazardous substances contained within the sealed cells. • Do not short-circuit the terminals, overcharge the battery, force over-discharge, or expose it to fire or high temperatures. • Do not immerse the battery in water or other liquids.
Handling and Storage Precautions	• Avoid mechanical or electrical abuse. • Store in a cool, dry, and well-ventilated area with minimal temperature fluctuations. • Avoid storage above 35°C or below 0°C. For long-term storage, maintain a temperature of 15°C ± 5°C and 80% State of Charge. • Do not place the battery near heating equipment or expose it to direct sunlight for extended periods.
Additional Precautions	• If damaged, the battery may release flammable gases or trigger a thermal runaway. Always handle with care and avoid any misuse that could cause mechanical or thermal stress. • Do not short-circuit the battery or install it with incorrect polarity. • Do not cover or remove safety markings, QR codes, or serial numbers. • Batteries showing signs of swelling, leakage, or corrosion should be taken out of service immediately and treated as hazardous waste.

Protective Measures & Safety Equipment

Respiratory Protection	• In case of battery venting, ensure maximum ventilation and avoid confined areas where venting cell cores may accumulate. • Respiratory protection is not required under normal use conditions.
Ventilation	• Not required under normal use conditions.
Protective Gloves	• Not required under normal use conditions. When handling damaged, leaking, or used batteries, use chemical-resistant gloves (e.g., nitrile or neoprene).
Other Protective Clothing or Equipment	• Protective clothing is not required during normal handling. • In case of leakage or fire risk, use long-sleeved chemical-resistant garments.
Personal Protection is recommended for venting battery	In the event of battery venting or thermal runaway, use the following personal protective equipment (PPE): • Respiratory protection (P2/OV filter) • Protective gloves (nitrile or neoprene) • Protective clothing • Safety goggles or glasses with side shields

Battery Specifications & Physical Properties

Appearance	Rectangular shape
Odors	None under normal conditions. If leaking, may emit a sweet or ether-like odor.
pH	Not applicable to sealed article
Flash Point	Not applicable (only relevant if electrolyte is exposed)
Flammability	Not applicable to sealed battery. Flammable components inside if damaged.
Relative density	Not applicable
Solubility (water)	Not applicable
Solubility (other)	Not applicable

Note: Refer to the product datasheet for detailed information on battery weight (approx. 12 kg), dimensions, terminal type, and IP rating.

Note: Properties such as pH, flammability, flash point, and solubility apply only if the internal electrolyte or cell contents are exposed (e.g., due to rupture or leakage).

Chemical Stability & Reactivity

Stability	The battery is stable under normal use and storage conditions. No hazardous reactions are expected if handled according to instructions.
Conditions to Avoid	• Prolonged exposure to temperatures outside the recommended storage and operating range. • Mechanical damage such as deformation, puncturing, or disassembly. • Electrical abuse, including overcharging or short-circuiting. • Prolonged exposure to high humidity.
Materials to avoid	Strong oxidizers, acids, alkalis (bases), and water - especially in the event of battery damage or leakage.
Hazardous Decomposition Products	Thermal decomposition of internal components may produce toxic gases such as carbon monoxide, carbon dioxide, hydrogen fluoride (HF), and phosphorus oxides.
Hazardous Polymerization	Hazardous polymerization is not expected under normal use or storage conditions.

Health Effects & Toxicology

Signs & symptoms	No adverse health effects are expected under normal use of the sealed battery. Exposure to internal components may cause irritation or injury to eyes, skin, and the respiratory system in the event of rupture, leakage, or combustion.
Inhalation	Inhalation of electrolyte vapors or thermal decomposition gases may cause respiratory tract irritation, coughing, or difficulty breathing. Seek medical attention if symptoms occur.
Skin contact	Contact with leaked electrolyte may cause redness, burning sensation, or chemical burns. Wash thoroughly with soap and water.
Eye contact	Exposure to internal components may cause redness, pain, or severe eye irritation. Rinse cautiously with water and seek immediate medical advice.
Ingestion	Ingestion of battery materials is harmful and may result in chemical burns, gastrointestinal distress, or systemic toxicity. Seek immediate medical attention.

Environmental Impact

Mammalian effects	No data available indicating adverse effects on mammals under normal use conditions.
Eco-toxicity	No emissions are expected during normal use. However, if released into the environment, electrolyte solvents and salts (e.g., EC, DMC, $LiPF_6$) may pose a hazard to aquatic organisms at high concentrations.
Bioaccuulation potential	The battery and its components are not biodegradable and have low bioaccumulation potential. Recycling through authorized channels is recommended.
Environmental fate	No specific data on environmental degradation. The battery should not be disposed of in the environment or in landfill.

Waste Management & Disposal

- Do not dispose of the battery in household waste, landfill, or by incineration. Batteries must be collected and recycled at authorized waste or recycling facilities, in compliance with Regulation (EU) 2023/1542 on batteries and waste batteries. Improper disposal may result in environmental harm and legal penalties. For guidance, contact MILA Nordic or your local environmental authorities.

Shipping & Regulatory Compliance

Label for conveyance	Lithium Battery Label, Class 9 Hazard Label.
UN Number	UN3480 – Lithium-ion batteries (not contained in or packed with equipment)
Marine pollutant	No.
Proper Shipping Name	Lithium-ion batteries (including lithium iron phosphate) – Proper Shipping Name under UN3480

In accordance with Regulation (EU) 2023/1542 on batteries and waste batteries

Other Information

This Safety Data Sheet was prepared using information provided by the battery cell manufacturer (EVE Energy Co., Ltd.), as well as recognized industry standards and regulatory guidance. It includes chemical and safety data relevant to the assembled battery pack, which may not be fully detailed in the cell-level SDS.

This SDS is intended to support safe handling, transportation, and disposal of the battery and does not replace the user manual.

Prepared in accordance with Regulation (EU) 2020/878 (Annex II of REACH).

CONTACT INFORMATION

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