



Safety Data Sheet

Section 1 Identification

Product Name: Li-ion Battery pack BT12 12VDC 4Ah 44.4Wh

Supplier by: Fiskars Finland Oy Ab, Keilaniementie 10, P.O box 91, Fi-02151 Espoo, Finland

Emergency phone Number: +358 (0)204 3910

Section 2 Hazard Identification

Primary Routes of Entry:

Skin contact, Skin absorption, Eye contact, Inhalation, and Ingestion: NO

Symptoms of Exposure: N/A

Skin contact: No effect under routine handling and use.

Skin absorption: No effect under routine handling and use.

Eye contact: No effect under routine handling and use.

Inhalation: No effect under routine handling and use.

Reported as Carcinogen: N/A

This product described in this Product Safety Data Sheet are sealed units which are not hazardous when used according to the recommendations of the manufacturer and as long as their integrity is maintained.

Do not open, puncture, incinerate, crush, deform, disassemble, force discharge, expose to water, or expose to temperatures above the declared operating temperature range of the product. Fire, explosion and severe burn hazards may occur in such abuse conditions.

Keep this product away from small children. International Standard IEC 60086-4 contains more detailed information on safety of lithium batteries.

Section 3 Composition/Information on Ingredients

Component	CAS Number	Weight %
Nickel cobalt manganese lithium oxide	182442-95-1	41%
Graphite	7782-42-5	22%
Electrolyte (Lithium hexafluorophosphate)	21324-40-3	16%
Copper	7440-50-8	11%
Aluminum	7429-90-5	5%
Dissepiment(polyethylene)	9002-88-4	1%
Binder (PVDF)	24937-79-9	1%
Binder (Carboxymethyl cellulose)	9004-32-4	1%
Binder (Styrene-butadiene rubber 1500)	9003-55-8	1%
Conductive agent (Carbon Black)	1333-86-4	1%

Section 4 First-aid Measures

Eye Contact:

Immediately flush with plenty of water for at least 15 minutes. In severe cases obtain medical attention

Skin Contact:

Immediately wash off skin with plenty of water for at least 15 minutes. Remove contaminated clothing and wash before reuse. In severe cases obtain medical attention.

Inhalation:

Leave area immediately and move to fresh air. If need to given oxygen.

Ingestion:

Drink two cups of milk/water and unconscious of vomiting is prohibited. In severe cases obtain medical attention.

Section 5 Fire-fighting Measures

Flash point:

Don't involve.

Ignition point:

No data.

Extinguishing Media:

CO₂, dry chemical extinguisher.

Fire extinguishing process methods:

Wearing a self-service breathing machine.

Combustion hazard:

Excessive heat can cause inclusions overflow.

Combustion products:

CO₂, CO, lithium metal oxide, excitant gas and toxic gas.

Section 6 Accidental Release Measures

Leakage processing:

When housing of cells contained in this product is damaged, small amounts of electrolyte may leak, evacuees until the smoke clears. If the battery heat, away from the scene, cooling battery, dissipate steam, adequate ventilation. Avoid skin or eyes contact with steam.

Waste disposal methods:

Battery discharge should be well, the battery will be discarded due to relevant departments, all waste must refer to the United Nations, the national and local regulations for disposal. With reference to national environmental protection bureau or federal EPA.

Section 7 Handling and Storage

Battery banned apart, damaged or burning, and forbidden to damage out of electrolyte.

Should be stored in an airtight container. Ban on short circuit, over charge, forced discharge, or into the water. Extrusion or puncture the battery is prohibited. Forbidden to battery into the liquid.

Operation and storage:

Mechanical or electrical damage battery is prohibited. Store this product in dry, cool, ventilated environment without temperature changed or high temperature. Away from heat source, avoid sunlight for a long time.

The battery in the open, extrusion, in case of fire or high temperature conditions, will cause a fire or explosion, it is forbidden to short-circuit or improper operation.

Section 8 Exposure Controls/Personal Protection

Respirator:

If the battery leaks, need to fully ventilated.

Hand protection:

None required under normal use conditions.

Personal protection:

None required under normal use conditions.

Other protection:

None required under normal use conditions.

Use respirator, butyl gloves, work overalls, chemical goggles when handling leaked product.

Section 9 Physical and Chemical Properties

Lithium Batteries Standard voltage : 12V

The rated capacity : 4.0Ah

Electricity : 44.4Wh

Appearance and shape: Black and white Plastics cement shell

Chemicals USES: Li-ion Battery pack

Section 10 Stability and Reactivity

Stability:

Good stability under normal use.

Taboo thing:

High temperature, mechanical or electrical damage.

Decomposition product:

N/A

Polymerization product:

N/A

If leakage avoid contact with strong oxidant acid, alkali, halogen.

Section 11 Toxicological Information

When the battery damaged, inhalation of skin or eye contact may produce stimulation. Excitant steam can damage the skin, eyes and respiratory mucosa.

Section 12 Ecological Information

Ecological Information :

The correct use and disposal of batteries will not cause harm to the environment.

The disposal of waste battery, away from water, rain and snow.

Section 13 Disposal Considerations

If the lithium battery is not completely discharge or only under the condition of partial discharge, partial without running out of lithium exists in the battery, the battery will be treated as hazardous waste has certain harm. It must be approved by the relevant institutions to deal with shall be abandoned. Under the relevant laws and regulations permit, the battery can be recycle.

Section 14 Transport Information

Maritime transport IMDG (41-22)

These products are not subject to other provisions of *IMDG Code (41-22)* according to special provision 188.

Note: The battery should be transport in packaging box, it also should prevent violent vibration, shock, extrusion, and weathered in the process of transportation. Each package is capable of withstanding a 1.2m drop test in any orientation cell contact and without release of contents, Report No. DQ2500010978. Each battery is of a type proved to meet the Requirement of each test in the UN MANUAL OF TESTS AND CRITERIA, Part III, sub-section 38.3, Report NO. DQ2500006308.

Section 15 Regulatory Information

China :

The substance is classed as division 9 hazardous chemicals according to Classification and code of dangerous goods (GB 6944-2012, GB 12268-2012).

Section 16 Other Information

The information is to the best of our knowledge and is just used for health, safety and environmental purpose. It shall not be treated as any form of warranty. Please provide a proper training to the person who may use, manage of this material and those safety-handling persons.

Abbreviation : N/A= Not available or Not applicable

Declaim: The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

The period of validity of the safety data:

The safety data sheet is based on GHS, TDG, IMDG, IATA-DGR, and "dangerous chemical safety management regulations" and the national standards and other related dangerous chemicals management laws and regulations and standards. The laws and regulations and standards are regularly updated and change. For the transport of dangerous goods in line with the requirements of the new management, the product safety data sheets should be review and update before August 20, 2026.

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