SAFETY DATA SHEET

Product Name : Lithium-ion battery

Applicant : NINGBO AOSHENG MACHINE CO.,LTD

Address : No.77 Nantang Rd,Linshan Town,Yuyao City,Zhejiang

Signed by Shanghai ICTS Group

Written by : **Star Gao**

Date: 23rd Nov. 2020

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(Material) SAFETY DATA SHEET

OSHA - Hazard Communication Standard **Created: 23rd Nov. 2020**

This Safety Data Sheet Complies with directives from the United States Occupational Safety and Health Administration (OSHA). The information contained within is provided as a service to our customers and for their information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation or revision. AOSHENG makes no warranty expressed or implied, and disclaims all liabilities from reliance on it

Section 1: Identification

1.1 Product name and Description

Battery:	Lithium-ion, Rechargeable
Electro-chemistry:	Lithium-ion (Li-ion)
Model/Description:	Power for garden tools

1.2 Supplier

Manufacturer:	NINGBO AOSHENG MACHINE CO.,LTD
Address:	No.77 Nantang Rd,Linshan Town,Yuyao City,Zhejiang
Post Code:	315462
Telephone:	+86 0574-62037812
Fax Number:	+86 0574-62037810
Emergency Contact Number:	+86 0574-62037812 / 13858298150

Section 2: Hazard(s) Identification

The lithium ion cell/battery covered in this Data Sheet is hermetically sealed in an aluminum alloy or metal case and not hazardous if used as recommended by the manufacturer.

The hazardous component in battery packs is the lithium-ion cell. Under normal use the battery cells present no physical danger of ignition or explosion and chemical danger of hazardous materials leakage. Battery cells are designed to vent gas to prevent explosion, if exposed to a fire, added mechanical shocks, electrically abused or physically damaged. This leaked gas could contain material classified as hazardous.

Warning: the cells/batteries should not be short circuited, punctured, incinerated, crushed, immersed in water, over-discharged, or exposed to a temperatures above the declared operation temperature range of the cell or battery.

Risk of fire or explosion may occur in the above condition of abuse.

Section 3: Composition/Information on Ingredients

Chemical name	CAS No.	% by Weight
Iron	7439-89-6	5-10
Copper	7440-50-8	5-10
Aluminium	7429-90-5	5-10
Lithium nickel oxide	12031-65-1	10-20
Carbon, activated	7440-44-0	10-20
Lithium cobaltate	12190-79-3	10-20
Dimethyl carbonate	616-38-6	10-20
Lithium manganate	12057-17-9	10-20

Section 4: First-Aid Measures

In case of battery rupture, major leakage or explosion, evacuate all workers and quarantine the contaminated area. Provide good ventilation to clear out any evacuate fumes, gases or the pungent odor.

Skin contact: Rinse affected area with plenty of water and soap or take a shower for 15 min.

Eyes contact: Rinse eyes with plenty of water for 15 minutes; Seek immediate medical attention.

Inhalation: Expose the person to fresh air and use artificial respiration if needed; Seek medical attention if necessary

Ingestion: Consult a physician or local poison control center immediately.

Section 5: Fire-Fighting Measures

Extinguishing Media:

1.Dry chemical or water type extinguishers are the most effective means to extinguish a cell or battery fire.

2.A carbon dioxide (CO_2) extinguisher is also effective.

Special hazards arising from the chemical:

Respiratory protection: In all fire situations, wear self-contained breathing apparatus (SCBA) and chemical apron.

Skin protection: Wear full firefighting protective clothing and equipment to prevent body contact with electrolyte solution.

Eye protection: Safety glasses are recommended.

During water application, caution is advised as burning pieces of flammable particles may be ejected from the fire.

Causes of unusual fire or explosion hazard:

Cells or batteries that are damaged, opened or exposed to excessive heat/fire may flame or leak potentially hazardous organic vapors.

Section 6: Accidental Release Measures

Procedures to contain and clean up leaks and spills:

Under a normal condition of use, a battery is hermetically sealed and not hazardous. Leakage or release of hazardous materials contained within a battery would be possible under abusive conditions.

In the event of battery rapture and leakage: contain the spills and cover the spills or leakage with dry sand or 1:1 mixture of soda ash and slaked lime.

Rubber gloves must be used to handle all battery components.

Avoid inhalation of any vapors that may be emitted.

Damaged batteries that are not hot or burning should be placed in a sealed plastic bag or container.

Section 7: Handling and Storage

Precautions for safe handling:

Consumption of food and beverage should be avoided in work areas. Wash hands with soap and water before eating, drinking. Ground containers when transferring liquid to prevent static accumulation and discharge.

Information about fire and explosion protection:

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

Conditions for safe storage and incompatibility:

Requirements to be met by storerooms and receptacles. Store in a cool, dry, well-ventilated place. Keep away from heat, avoiding the longtime of sunlight.

Section 8: Exposure Controls/Personal Protection

Occupational exposure limit:

Ingredients with limit values that require monitoring at the workplace:

Lithium Cobalt Oxide: 0.02mg/m^3 (TLV-USA); 0.1mg/m^3 (MAK-Germany)

Engineering controls and work practices:

Under conditions of normal use, batteries do not emit hazardous or regulated substances.

No engineering controls are required for handling batteries that have not been damaged.

Personal protective equipment:

Personal protective equipment should include chemical resistant gloves and safety glasses.

In the event of a fire, SCBA should be worn along with thermally protective outer garments.

Section 9: Physical and Chemical Properties

Appearance	Small Battery Pack.
Form	Sealed Solid.
Odor	If leaking, smells of medical ether.
pH	Not applicable as supplied.
Flash point	Not applicable unless individual components exposed.
Flammability	Not applicable unless individual components exposed.
Relative density（water=1）	Not applicable unless individual components exposed.
Solubility(water)	Not applicable unless individual components exposed.
Solubility(other)	Not applicable unless individual components exposed.

Section 10: Stability and Reactivity

Stability:	The batteries are stable under normal operation and storage conditions.
Conditions to Avoid:	Short-circuiting, disassembling, over-discharging, heating over the declared operation temperature range of the product.
Materials to Avoid:	Water, strong acid or alkalis solutions, oxidizing agent.
Hazardous Decomposition Products:	Carbon Monoxide (CO) and other VOC's.
Hazardous Polymerization:	Will not occur.

Section 11: Toxicological Information

The toxicological properties of this product have not been investigated. Information for components is provided below.

Acute toxicity

Iron:
Oral(rat)LD50=750mg/kg
Copper:
Dermal(rat) LD50>2000mg/kg; Inhalation(rat) LC50=0.73mg/L-4h; Oral(rat)LD50=300~500gm/kg
Aluminum:
Oral(rat) LD50>2000mg/kg

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin May cause skin irritation.
Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.
Other: May cause cancer.
Target organs: Lungs

Section 12: Ecological Information

Ecotoxicity:	No data available.
Biodegradable:	No data available.
Non-biodegradable:	No data available.
Bioconcentration or biological accumulation:	No data available.
Other harmful effects:	No known significant effects or critical hazards.

Section 13: Disposal Considerations

Do not dispose in fire or submerge in water.
Battery disposal regulations vary on national, state/provincial and local bases.
Disposal must be conducted in accordance with the applicable laws and regulations.
These batteries contain recyclable materials and recycling is encouraged over disposal.

Section 14: Transport Information

The regulations that govern the transport of rechargeable lithium ion (including polymer) cells and batteries include the International Civil Aviation Organization (ICAO) Technical Instructions and International Air Transportation Association (IATA) Dangerous Goods Regulations and International Maritime Dangerous Goods (IMDG) Code.

UN Number and Proper Shipping Name:

3480 LITHIUM ION BATTERIES (including lithium ion polymer batteries)

Hazard classification:

Miscellaneous Class 9

Shipping information:

Lithium battery is of a type proved to meet the Requirements of each test in the UN Manual of Tests And Criteria, Part III, sub-section 38.3.

Packing Instructions:

Packing of lithium ion cells/batteries and batteries contained in or packed with equipment for transportation are regulated by IATA/ICAO, the 57th Edition of IATA Dangerous Goods Regulations (DGR), Packing Instructions PI965, PI966 and PI967, IMDG and ADR Code SP188, and P903/908/909, SP230/376/377.

Label requirements:

Identification and proper labeling should comply with the applicable regulations.

Section 15: Regulatory Information

Safety, Health and Environmental Regulations/ Legislation:
OSHA: These products do not meet criteria as per Part 1910.1200, manufactured article.
Chemical Safety Assessment:
Not applicable.

Section 16: Other Information

The information contained herein is made in good faith and believed to be accurate by the best knowledge available to us and furnished without warranty of any kind. Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. BIPOWER CORP makes no warranty expressed or implied, and disclaims all liabilities from reliance on it.

Photo attachment
LITHIUM-ION BATTERY


END OF REPORT

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