中国认可
检验
INSPECTION
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SAFETY DATA SHEET

Product Name: Li-ion Battery Pack NIU-48N7A0 46.8V 7.8Ah 365Wh

Effective Date: 2021-08-04

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Shanghai Institute of Chemical Industry Testing Co., Ltd.

Jiangsu Niu Electric Technology Co., Ltd.

SAFETY DATA SHEET

Li-ion Battery Pack NIU-48N7A0 46.8V 7.8Ah 365Wh

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Li-ion Battery Pack NIU-48N7A0 46.8V 7.8Ah 365Wh

Company: Jiangsu Niu Electric Technology Co., Ltd.
Address: No. 387 Changting Road, West Taihu Science and Technology Industrial Park, Changzhou City, Jiangsu Province, 213100, P.R.China
Email: Zu.renzheng@niu.com

Fax: 86-519-68218077

Emergency Phone: 86-519-68218077

Recommend use of the chemical and restrictions on use: /

SDS Number: 2621070220

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SECTION2 HAZARDS IDENTIFICATION

The product is outside of the scope of GHS system.

Main Hazards:

Fire or Explosion Hazards:
Lithium ion battery contains flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperatures (>150℃), when damaged or abused (e.g., mechanical damage or electrical overcharging). May burn rapidly with flare-burning effect. May ignite other batteries in close proximity.

Health Hazards:
Contact with the electrolyte of battery may be irritating to skin, eyes and mucous membranes. Fire will produce irritating, corrosive and/or toxic gases. Fumes may cause dizziness or suffocation.

SECTION3 INFORMATION ON INGREDIENTS

Product name: Li-ion Battery Pack NIU-48N7A0 46.8V 7.8Ah 365Wh

Ingredient	Concentration	CAS No.	EC No.
Cobalt lithium manganese nickel oxide	<35%	182442-95-1	/

Graphite	<25%	7782-42-5	231-955-3
Copper	<15%	7440-50-8	231-159-6
Aluminum	<10%	7429-90-5	231-072-3
Dimethyl carbonate	<8%	616-38-6	210-478-4
Ethylene carbonate	<5%	96-49-1	202-510-0
Lithium hexafluorophosphate	<5%	21324-40-3	244-334-7
Carbon black	<5%	1333-86-4	231-153-3
Carboxymethyl cellulose sodium salt	<2%	9004-32-4	618-378-6
Polyvinylidene fluoride	<2%	24937-79-9	607-458-6

SECTION4 FIRST-AID MEASURES

Skin Exposure:

If in contact with the internal materials of battery, remove the contaminated clothing, shoes and socks, immediately flush with plenty of water for at least 20 minutes. Call a physician.

Eye Exposure:

If in contact with the internal materials of battery, lift your eyelids immediately and rinse them with running water for more than 20 minutes. Call a physician.

Inhalation Exposure:

If the internal materials of battery are inhaled, immediately remove to fresh air. If breathing is difficult give oxygen. If not breathing, give artificial respiration. Call a physician.

Oral Exposure:

Do not induce vomiting if the internal materials of battery are swallowed. Call a physician immediately.

Most Important Symptoms/Effects, Acute and Delayed:

No data available.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

No data available.

SECTION5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Suitable:Water spray or regular foam.

Specific Hazards Arising from the Chemical:

May decompose upon combustion to generate irritating, corrosive or toxic fumes. Fumes may cause dizziness or suffocation.

Special Protective Action for Fire-fighters:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fire-extinguishing work is done from the windward. Uninvolved persons should evacuate to a safe place.

SECTION6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Entry to noninvolved personnel should be controlled around the leakage area by roping off. Remove all sources of ignition.

Environmental Precautions:

Avoid leakage getting into the earth, ditches or waters. Avoid directly releasing the washing waste-water into the environment.

Methods and Materials for Containment and Cleaning up:

If the electrolyte leaks, use soil, sand or other non-combustible materials to absorb. The leaked batteries and dirty adsorbents should be placed in metal containers.

SECTION7 HANDLING AND STORAGE

Precautions for Safe Handling:

Operators should be trained and strictly abide by operating procedures. Wear appropriate protective clothing and safety gloves. Keep away from ignition sources, heat and flame. No smoking at working site. Handling is performed in a well ventilated place. Avoid disassembling the battery at will and reversing battery polarity within the battery assembly. The battery must be firmly packed in inner packaging so as to effectively prevent short circuits and short circuits caused by movement. If the electrolyte leaks, avoid directly contacting with eyes and skin. Avoid inhalation. Incompatibilities: Strong oxidizing agents, combustible materials and corrosives.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in a cool, dry, and well-ventilated area. Keep away from ignition sources, heat and flame. Incompatibilities: Strong oxidizing agents, combustible materials and corrosives. The battery must be firmly packed in inner packaging so as to effectively prevent short circuits and short circuits caused by movement. Storage place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

SECTION8 EXPOSURE CONTROL/PPE

Control Parameters:

GBZ 2.1-2019 Occupational Exposure Limits for Hazardous Agents in the Workplace - Part 1: Chemical Hazardous Agents:

Copper: Copper dust PC-TWA 1mg/m^3; Copper smoke PC-TWA 0.2mg/m^3

Aluminum metal and aluminum alloy dust: PC-TWA 3mg/m^3 (total dust)

Graphite dust: PC-TWA 4mg/m^3 (total dust) 2mg/m^3 (inhalable dust)

Manganese and its inorganic compounds (calculated as Manganese dioxide): PC-TWA 0.15 mg/m^3

Cobalt and compounds, as Co: PC-TWA 0.05 mg/m^3 PC-STEL 0.1 mg/m^3 Remark: G2B; Sensitization

Metallic nickel and insoluble nickel compounds: PC-TWA 1mg/m^3 Remark: G2B (Metals and alloys) Carbon black dust: PC-TWA 4 mg/m^3(total dust) Remark: G2B

ACGIH:

Copper: TLV-TWA 1 mg(Cu)/m^3, dust, mist TLV-TWA 0.2 mg(Cu)/m^3, fume

Aluminum: TLV-TWA: 1 mg/m^3

Graphite: TLV-TWA 2 mg/m^3

Carbon black: TLV-TWA: 3 mg/m^3 (inhalable dust)

Appropriate Engineering Controls:

Mechanical exhaust required. Safety shower and eye bath.

Individual Protection Measures:

Eye/Face Protection:

Wear chemical safety glasses if needed.

Skin Protection:

Hand Protection: Wear safety gloves.

Body Protection: Wear appropriate protective clothing.

Respiratory Protection:

Wear government approved respirator if needed.

Thermal Hazards:
No data available.

Other Protect:
No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Black plastics cement and metal shell
Odor:	Odorless
pH Value:	8-9
Solubility:	Partial soluble in water
Boiling Point, Initial Boiling Point and Boiling Range:	No data available
Melting Point/Freezing Point:	>300℃
Flash Point (Closed Cup):	No data available
Density/Relative Density:	No data available
Kinematic Viscosity:	No data available
Lower/Upper Explosion Limit/Flammability Limit:	No data available
Vapour Pressure:	No data available
Relative Vapor Density:	No data available
Partition Coefficient N-Octanol/Water(Log Value):	No data available
Autoingnition Temperature:	No data available
Decomposition Temperature:	No data available
Particle Characteristics:	No data available
Flammability (Solid, Gas):	No data available

SECTION10 STABILITY AND REACTIVITY

Reactivity:
No data available.

Chemical Stability:
Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions:
No data available.

Conditions to Avoid:

Avoid misoperation, exposure to heat and open flame. Avoid mechanical or electrical abuse and overcharge. Prevent short circuits and short circuits caused by movement.

Incompatible Materials:

Strong oxidizing agents, combustible materials and corrosives.

Hazardous Decomposition Products:

Carbon oxides, metal oxides, etc.

SECTION11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

No data available.

Skin Corrosion/Irritation:

The electrolyte in the battery causes skin irritation.

Serious Eye Damage/Irritation:

The electrolyte in the battery causes eye irritation.

Respiratory Sensitization:

No data available.

Carcinogenicity:

No data available.

Skin Sensitization:

No data available.

Germ Cell Mutagenicity:

No data available.

Reproductive Toxicity:

No data available.

Specific Target Organ Toxicity -Single Exposure:

No data available.

Specific Target Organ Toxicity -Repeated Exposure:

No data available.

Aspiration Hazard:

No data available.

SECTION12 ECOLOGICAL INFORMATION

Toxicity:

No data available.

Persistence and Degradability:

No data available.

Bioaccumulative Potential:

No data available.

Mobility in Soil:

No data available.

Other Adverse Effects:

No data available.

SECTION13 DISPOSAL CONSIDERATION

Disposal Methods: