

MSDS Report

ReportNo.:A001B20170328022

Samples NI-MH battery

Model AA

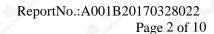
Client Shenzhen Huipu Energy Technology Co.,Ltd

Issue Date 2017-03-28



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Material Safety Data Sheet

According to ISO11014:2009 & GB/T16483-2008

Section 1 - Chemical Product and Company Identification

Chemical product information

Sample Description: NI-MH battery

Sample Model: AA

Sample Receiving Date: 2017-03-28

Sample Uses: ---

Company information

Manufacturer: Shenzhen Huipu Energy Technology Co.,Ltd

Address: NO.jili 6, pingdi town pingxi jixiang 2 road,longgang district ,Shenzhen,Guangdong province

Tel: 0755-28957948 **Fax:** 0755-28957948 **Post code:** 518000

Emergency telephone: 0755-28957948

E-mail:561901292@qq.com

Section 2 - Hazards Identification

Emergency overview: No information available

Classification according to GHS: Not a dangerous substance according to GHS.

A T	Label elements
Hazard pictogram(s)	No available
Signal word	No available
Hazard statement(s)	No available
Precau	ntionary statement(s)
Prevention	No available
Response	No available
Disposal	No available

Physical and chemical risk: No information available

Health hazard: No information available

Environmental hazards: No information available

Other hazards: No information available

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Section 3 - Composition, Information on Ingredients

Classification of the substance or mixture:

□ substance ⋈ mixture

Chemical Composition	CAS No.	EC#	Weight (%)	
Nickel hydroxide	12054-48-7	235-008-5	11-26	
Cobalt oxide	11104-61-3	/s	8-20	
Potassium hydroxide(liquid)	1310-58-3	215-181-3	5	
Sodium hydroxide	1310-73-2	215-185-5	1.8	
Fe	7439-89-6	231-096-4	12-19	

Note: CAS: Chemical Abstracts Service (Division of the American Chemical Society

EC#: European in ventry of Exisiting commercial Chemical Substances

"---": No Data

Section 4 - First Aid Measures

General information: No special measures required.

After inhalation: Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.

After skin contact: Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.

After eye contact: Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.

After swallowing: Do not induce vomiting. Get medical attention.

The main symptoms: No relevant details information.

Health effects: No relevant details information.

To protect the rescuers advice: No relevant details information.

To the doctor's advice: Need timely medical treatment and special symptoms, no relevant details

information.

Section 5 - Fire Fighting Measures

Suitable extinguishing agents: Use extinguishing agent suitable for local conditions and the surrounding environment. Such as dry powder, CO₂.

Special hazards arising from the substance or mixture: Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable

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electrolyte that may vent, ignite and produce sparks when subjected to high temperature(>150°C(302°F)), when damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.

Attention extinguishing method and protective measures: Wear self-contained respirator. Wear fully protective impervious suit.

Section 6 - Accidental Release Measures

Homework personnel protective measures, protective equipment and emergency disposal procedures:

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

Environmental precautions: Do not allow material to be released to the environment without proper governmental permits.

Steps to be taken in case material is spilled or released and Waste disposal method: Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water. All waste must refer to the United Nations, the national and local regulations for disposal.

To prevent the secondary disasters prevention measures:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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, including any incompatibilities: Requirements to be met by storerooms and receptacles. Store in a cool, dry, well-ventilated place. Keep away from heat, avoiding the long time of sunlight.

Section 8 - Exposure Controls, Personal Protection

Occupational exposure limit

Ingredients with limit values that require monitoring at the workplace:no relevant details information.

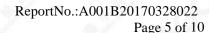
Biological limit: no relevant details information.

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Detection: no relevant details information.

Engineering control

General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work.

Respiratory Protection: Use suitable respirator when high concentrations are present.

Personal Protection

Protection of hands	Eye protection		
Protective gloves	Tightly sealed goggles		

Section 9 - Physical and Chemical Properties

Appearance	Sliver		
Form	Cylinder		
Odour	Odorless.		
Electrical proper	ties information		
Voltage	1.2V 300-2800mAh		
Electric capacity			
Watt-hour	43/		

Section 10 - Stability and Reactivity

Chemical stability: Stable in normal circumstances.

Possibility of hazardous reactions: Data not available.

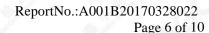
Conditions to Avoid: Flames, sparks, and other sources of ignition, incompatible materials.

Incompatibilities: Oxidizing agents, acid, base.

Hazardous Combustible Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

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Section 11 - Toxicological Information

Information on toxicological effects

Acute toxicity LD/LC50 Values relevant for classification:

Composition	CAS No.	LC50/LD50
Potassium hydroxide (liquid)	1310-58-3	LD50: 273mg/kg

Note: LC50: lethal concentration, 50 percent kill

LD50: lethal dose, 50 percent kill

Skin irritation/corrosion: No further relevant information available.

Eyes stimulus/corrosion: No further relevant information available.

Breathing or skin irritation: No further relevant information available.

Germ cell respectively: No further relevant information available.

Carcinogenicity: No further relevant information available. **Reproductive toxicity:** No relevant details information.

Specific target organ system toxicity disposable contact: No further relevant information available. **Specific target organ system toxicity, repeated contact:** No further relevant information available...

Inhalation hazard: No further relevant information available.

Potentially harmful effects: No further relevant information available.

Section 12 - Ecological Information

Ecological toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Behaviour in environmental systems

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Ecological effects

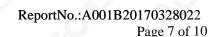
Additional ecological information

General notes:Do not allow material to be released to the environment without proper governmental permits

Other adverse effects: No further relevant information available.

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Section 13 - Disposal Considerations

Waste treatment methods and Recommendation: Consult state, local or national regulations to ensure proper disposal.

Uncleaned packaging and Recommendation: Disposal must be made according to official regulations.

Section 14 - Transport Information

V .*	IATA	IMDG
UN Number	N/A	N/A
UN Proper shipping name	N/A	N/A
Transport hazard class(es)	N/A	N/A
Packing group	N/A	N/A
Marine pollutant:		No

Note: IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods

Transport information: NI-MHbattery(AA1.2V)isexemptfromdangerousgoods. Itisconsidered non-dangerous goods by the International Civil Aviation Organization (ICAO), the International Air TransportAssociation(IATA)DGR58 th , IATA Special Provisions A199, International maritime Dangerous Goods Regulations (IMDG) (37-14), or the 《Recommendations on the Transport of Dangerous Goods Model Regulations》 (19th).

By ocean the International maritime Dangerous Goods Regulations (IMDG) regulates them as class 9 dangerous good under UN3496 and Special Provision 117 and 963 which allow a total quantity of less than 100kg gross mass to be transported as non-regulated.

S.P.A199 The UN number UN 3496 is only applicable in sea transport. Nickel-metal hydride batterise or nickel-metal hydride battery-powered devices, equipment or vehicles having the potential of a dangerous evolution of heat are not subject to these Regulations provided they are prepared for transport so as to prevent:

- (a) a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
- (b) unintentional activation. The words "Not Restricted" and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6, when an Air Waybill is issued. Separate batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport.

Transport Fashion:

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Section 15 - Regulatory Information

This Material Safety Data Sheet complies with the requirements of Regulation (EC) No. 1907/2006. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Composition	CAS No.	IECSC	TSCA	DSL/NDSL	EINECS/ ELINCS/ NLP
Nickel hydroxide	12054-48-7	Listed	Listed	Listed	Listed
Cobalt oxide	11104-61-3	Listed	Listed	Listed	Not Listed
Potassium hydroxide(liquid)	1310-58-3	Listed	Listed	Listed	Listed
Sodium hydroxide	1310-73-2	Listed	Listed	Listed	Listed
Fe	7439-89-6	Listed	Listed	Listed	Listed

Note: EINECS: European Inventory of Existing Chemical Substances

ELINCS: European List of Notified Chemical Substances

DSL: Canadian Domestic Chemical Substances

IECSC: Inventory of Existing Chemical Substances in China

NDSL: Canadian non-domestic Chemical Substances

TSCA: Toxic Substances Control Act of USA

Section 16 - Additional Information

Declare to reader

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Prepared by Checked by Approved by

Xuejiajia Zhaharing Likhi

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----报告结束---

End of report

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