SAFETY DATA SHEETS

This SDS packet was issued with item:

078560532

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078352867 078865772

Material Safety Data Sheet
NI-MH BATTERY

Document Number : **Revision : 00**

Note: Blank spaces are not permitted if any item is not applicable or information is available, the space must be marked to indicate that.

Identity(As Used on Label and List)	Part Number :
	It is available all the products of Mcnair

Section I = Information of Manufacturer

Manufacturer's Name

McNair Technology Co., Ltd.,

Address(Number, Street , City, State and ZIP Code)

Dayouyuan Industrial estate,Dalang town,Dongguan city, Guangdong province , P.R.China..Zip:523796

Section II = Hazardous Ingredients/Identity Information

Hazardous Components :

Weight %	Component-(CAS Registry No.)
30-35	Hydrogen absorbing alloy (not applicable)
20-25	(Ni-Co-Zn) hydroxide (not applicable)
1-5	Sodium hydroxide (001310-73-2)
1-5	Potassium hyroxide (001310-58-3)
1-5	Lithium hydroxide (001310-65-2)
20-25	Steel Can (not applicable)
1-5	Paper (not applicable)
1-5	Plastic (not applicable)

Weight % listed is based on approximate persent of the average weight of the battery (24 grams)

The components in this section may only represent a hazard if the integrity of the battery is compromised.

Section III = Physical / Chemical Characteristics

Form Solid	Specific Gravity (H20 = 1) Not applicable
Boiling Point Not applicable	Melting Point Not applicable
Vapor Pressure(mm Hg) Negligible	Evaporation Rate (Buty1 Acetate = 1) Not applicable
Vapor Density (AIR = 1) Not applicable	PH Not applicable
Solubility in Water Insoluble	Appearance and Odor Not applicable color and odorless.

Section IV - Hazard Classification

Classification

May vent, Leak and/or explode if opened , Short circuited, connected improperly,or exposed to Fire or high temperatures

Vapors/Fumes from damaged batteries may cause respiratory tract irritation damaged batteries may cause skin and eye burns.

Section V - Reactivity Data

Stability Yes = ( )	Unstable ( )	Conditions to Avoid : Stable under normal conditions of use .
	Stable (✓)	At the positive electrode: $Ni(OH)_2+OH^- \underset{\text{discharge}}{\overset{\text{charge}}{\rightleftharpoons}} NiOOH+H_2O+e^-$ At the negative electrode: $M+H_2O+e^- \underset{\text{discharge}}{\overset{\text{charge}}{\rightleftharpoons}} MH+OH^-$ This gives an overall reaction of: $Ni(OH)_2+M \underset{\text{discharge}}{\overset{\text{charge}}{\rightleftharpoons}} NiOOH+MH$

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Incompatibility (Materials to Avoid)

None with common materials and contaminants with which the material may reasonably come into contact.

Hazardous Decomposition or By products

Hazardous Reactions Yes = ( )	May Occur ( )	Conditions to Avoid :
	Will Not Occur (✓)	The components in this section may only represent a hazard if the integrity of the battery is compromised.

Section VI - Health Hazard Data

Route(s) of Entry Yes = (X)	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Yes

Health Hazard(Acute and Chronic)/ Toxicological Information

General : Since the materials in this battery are sealed in the battery case , the potential for exposure to the components of the battery is used as directed . However, technical or electrical abuse of the battery may result in the release of the battery contents.

Inhalation:Harmful if inhaled,May cause irritation to the mucous membersnes and upper respiratory tract.

Eyes:contact with electrolyte(liquid) causes burns,Vapors or fumes may cause irritation,contact with metal fragment may cause burns or mechanical injury.

Skin:contact with electrolyte(liquid) causes burns ,contact with metal fragments may cause burns or mechanical injury.

Harmful ,if absorbed through skin. Vapors or fumes may cause irritation,

Section VII - First Aid Measures

First Aid Procedures

Note; The routine handling and use of intact, non-damaged batteries is not expected to result in situations that require first-aid measures. If battery is damaged due to opening, cutting, overheating,improper installation,exposure to fire or high temperetures or recharging ,battery contents may be released.

Inhalation:If vapors or fumes from vented or leaking battery are irritating to respiratory tract,move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eyes; In case of contact with battery contents (liquid or metal),immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

skin: In case of contact with battery contents(liquid or metal), immediately remove metal fragments and flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Call a physician or poison control center immediately for any actual or suspected ingestion. All batteries may be harmful if swallowed . Do not induce vomiting . Batteries may lodge in the throat or digestive tract and fragment . If battery was leaking or chewed, Rinse mouth thoroughly with water.

Section VIII - Fire and Explosion Hazard Data

Flash Point (Method Used)	Ignition Temp.	Flammable Limits	LEL	UEL

Extinguishing Media

Use appropriate agent for adjacent fire.

Special Fire Fighting Procedures

Fire or excessive heat may produce hazardous decomposition products . Wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards

Fire or high temperature may cause battery to vent and/or explode or leak hazardous vapors. Damaged or opened batteries can result in rapid heating and the release of hazardous vapors.

Section IX - Accidental Release or Spillage

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Steps to Be Taken In Case material is Released or Spilled

Not applicable .

Section X - Handling and Storage

Safe Handing and storage advice

Personal Precautionary Measure: If battery has been damaged. Do not breathe fumes or vapors , Do not get battery contents in eyes, on skin, on clothing, wash thoroughly after handling .

Prevention of fire and Explosion: Do Not disassemble ,Do not short circuit, Keep away from heat and flame. Do Not Recharge. Charging may result in electrolyte leakage and /or explosion. Avoid the use of old and new batteries or batteries of varying sizes and types in the same battery assembly. The batteries electrical characteristics and capabilities may vary and damage may result to the batteries or electrical equipment . Avoid encasing in airtight compartments . Flammable hydrogen gas, normally generated, can form explosive mixtures. Provisions for venting must be provided. Avoid reversing polarity within a device or battery assembly. To do so may cause leakage and /or explosion.

Storage:Store in cool, dry place. Protect from direct sunlight . Storage above 70℃ may affect product quality. Do not store in a manner that allows terminals to short circuit . Extended short circuiting creates high temperatures in the battery. High temperatures can cause leakage and /or explosion. Short circuiting may reduce battery service life.

Section XI - Exposure Controls / Personal Protection

Occupational Exposure Limits : ACGIH Threshold Limit Value (TLV)	LTEP	STEP

Respiratory Protection (Specify Type)

None should be need .

Ventilation	Local Exhausts	Special Not applicable .
	Mechanical (General)	Other Not applicable .

Protective Gloves : When handling a damaged battery.	Eye Protection When handling a damaged battery, Wear safety glasses.

Other Protective Clothing or Equipment

Supplemental ventilation may be needed in special circumstances to control fumes/vapors to an acceptable level.

Work / Hygienic Practices

Not applicable .

Section XII - Ecological Information

This material has not been tested for environmental effects .

Section XIII - Disposal Method

DO NOT INCINERATE or expose to fire . Discharge,treatment, or disposal may be subject to national ,state,or local laws.

Section XIV -TRANSPORTATION INFORMATION

Batteries are considered to be "dry cell" batteries and are unregulated for purposes of transportation by the U.S department of transportation (DOT),International Civil Aviation Administration (icao), International air transport association(IATA) and International maritime dangerous Gods regulations(IMDG). The only DOT repuirement for shipthese batteries is special provision 130 which states: "Batteries,dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat (for example,by the effective insulation of exposed terminals).As of 1/1/87 IATA requires that batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short -circuiting.

Section XV - Other Information

the data in this material safety data sheet relates to the specific material designated herein

Section XVI - Measures for fire ,extinction

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In case of fire, it is permissible bo use any class of extinguishing medium of thesebatteris or their packing material. Cool extarion of batteries if exposed to fire to provent rupture.

fire fighters should wear self-contained breathing apperatus.



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