

Material Safety Data Sheet	Model No.:	Nickel-Metal Hydride Battery
Document Number: KLY-M-0101	Revision:1.3	Page 1 of 4
IDENTITY (As Used on Label and List)	Note: Blank spaces ar applicable or no informamarked to indicate that.	e not permitted if any item is not ation is available, the space must be

#### Section I – Information of Manufacturer

Manufacturer's Name YiYang Corun Battery Co.,Ltd.	Emergency telephone Number
Address(Number, Street, City State,	Telephone Number for information
and ZIP Code)	+86) 0737-6202918
Chao Yang Development Zone,	
YiYang city, Hunan province, china	
	Date of prepared and revision
	26 Aug 2010
	Signature of Preparer(optional)

# Section II -Hazardous Ingredients/Identity Information

**Hazardous Components:** 

A) The content of elements are based on homogeneous materials level of NiMH battery:

Element	Lead		Hexavalent Chromium (Cr6+)			Polybrominated Diphenyls Ethers (PBDEs)
Limit (mg/kg)	<1000	<100	<1000	<1000	<1000	<1000
CAS no.	7439-92-1	7440-43-9	18540-29-9	7439-97-6	59536-65-1	

B) The content of elements are based on total weight of NiMH battery:

Element	Lead	Cadı	Hexavaler Chromium		ium	Mercury	Polybrominated Biphenyls (PBBs)	Polybrominated Diphenyl Ethers (PBDEs)
Limit (mg/kg)	<40	<	20	(Cr6+) <5		<5	Nil	Nil
Element	Ni(OI (Nick Hydrox	kel	Sol	Solution		0% NaOH Solution (Sodium	Non-Hazardou Materials	IS
Limit (wt%)	<309		<20%		<20%		<30%	
CAS no.	12054-	48-7	1310	0-58-3	1	310-73-2		

High Technology Industry Park, ChaoYang Development Zone, YiYang city, Hunan province, china Telephone: (086) 737 6202918 Website: http://www.corun.com

Fax: (086) 737 6202919

Manufacturer reserves the right to alter or amend the design, model and specification without prior notice.



Model No.: Nickel-Metal Hydride Battery **Material Safety Data Sheet** Document Number: KLY-M-0101 Page 2 of 4 Revision:1.3 Section III – Physical/Chemical Characteristics **Boiling Point** Specific Gravity (H2O=1) N.A. Vapor Pressure (mm Hg) N.A. Melting Point N.A. Vapor Density (AIR=1) N.A. **Evaporation Rate** (Butyl Acetate=1) N.A. Solubility in Water N.A. Appearance and Odor: Cylindrical Shape. odorless Section IV – Hazard Classification Classification N.A. Section V – Reactivity Data Stability Unstable Conditions to Avoid Stable X Incompatibility (Materials to Avoid) Hazardous Decomposition or Byproducts May Occur Hazardous Conditions to Avoid Polymerization Will Not Occur X Section VI – Health Hazard Data Route(s) of Inhalation? Skin? Ingestion? Entry N.A. N.A. N.A. Health Hazard (Acute and Chronic) / Toxicological information In ease of electrolyte leakage, skin will be itchy when contaminated with electrolyte. In contact with electrolyte can cause severe irritation and chemical burns. Inhalation of electrolyte vapors may cause irritation of the upper respiratory tract and lungs. Section VII – First Aid Measures First Aid Procedures If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately. If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15) minutes, and contact a physician. If electrolytes vapors are inhaled, provide fresh air and seek the attention if respiratory irritation develops. Ventilate the contaminated area.

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Section	VIII – Fire a	and E	Explosion	Haza	rd Data		
Flash Point	(Method Used)	N.A.	Ignition Tem N.A	٢	mable Limits N.A.	LEL N.A.	UEL N.A.
	ng Media oon Dioxide, Dry ( Fighting Procedu		al or Foam Ex	tinguishe	rs		
	e and Explosion H						
Do not	dispose of battery short circuit batte	y in fire	– may explod				
Section	IX – Accide	ental	Release	of Spi	lage		
Steps to be	Гакеп in case Mat	erial is	Released or Sp	oilled			
Batteri	es that are leakage	e should	d be handled w	ith rubbe	r gloves.		
Avoid	direct contact with	n electr	olyte.				
Wear p	rotective clothing	and a p	positive pressu	re Self-C	ontained Breat	hing Apparat	us (SCBA).
Section	X – Handlii	ng ar	nd Storag	е			
Safe handlir	ng and storage adv	rice					
Batteri	es should be hand	led and	stored careful	ly to avoi	d short circuit	s.	
Do not	store in disorderl	y fashio	on, or allow me	etal objec	ts to be mixed	with stored b	atteries.
Never	disassemble a batt	tery.					
Do not breathe call vapors or touch internal material with bare hands.							
Keep b	atteries between -	30 C aı	nd 35 C for pro	long stor	age.		
	XI – Expos				on Protec	tion	
Occupationa	al Exposure Limit	s: L	ΓΕΡ N.A.	STEP	N.A.		
Respiratory	Protection (Specia	fy Туре			N.A.		
Ventilation	Local Exhausts		N.A.	Special	N.A.		
	Mechanical (Ge	neral)	N.A.	Other	N.A.		
Protective Gloves N.A.			Eye Protection N.A.				
Other Protec	ctive Clothing or I	Equipm			N.A.		
Work/Hygie	enic Practices				N.A.		
						<u> </u>	

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## **Section XII - Ecological Information**

N.A.

## **Section XIII - Disposal Method**

Dispose of batteries according to government regulations

## **Section XIV - Transportation Information**

CORUN 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 Goods Regulations (IMDG). The only DOT requirement for shipping these 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). The only requirements for shipping these batteries by ICAO and IATA is Special Provision A123 which states: "An electrical battery or battery powered device having the potential of dangerous evolutions of heat that is not prepared so as to prevent 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) is forbidden from transportation." The international Maritime Dangerous Goods Code (IMDG) regulate them for ocean transportation under Special Provision 304 which says: Batteries, dry, containing corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to the provision of this Code provided the batteries are securely packed and protected against short-circuits. Example of such batteries are: alkali-manganese, zinc-carbon, sliver oxide, nickel metal hydride and nickel-cadmium batteries which are non-dangerous goods. Such batteries have been packed in inner packaging in such a manner as to effectively prevent short circuit and movement that could lead to short circuit.

## **Section XV - Regulatory Information**

Special requirement be according to the local regulations.

### **Section XVI - Other Information**

The data in this Material Safety Date Sheet relates only to the specific material designated herein.

#### Section XVII – Measures for Fire Extinction

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.

Fire fighters should wear self-contained breathing apparatus.

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