



CYBER-POWER ELECTRONIC CORPORATION

MSDS Report

Product Name: Ni-MH Battery

Type/Model: **CYH-3X33SC2200P (Customer Model No. 21392)**

Revision Date: March 06 2015

Material Safety Data Sheet

According to ST/SG/AC.10/30/Rec.5(GHS)

Section 1-Chemical Product and Company Identification

Sample Description: Ni-MH Battery

Sample Model: **CYH-3X33SC2200P (Customer Model No. 21392)**

Recommended Uses: N/A

Restrictions on use: N/A

Supplier name: CYBER-POWER ELECTRONIC CORPORATION

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Section 2-Hazards Identification

Emergency overview: N/A

Classification according to GHS

Not a dangerous substance according to GHS.

Label elements

Hazard pictogram(s): No available

Signal word: No available

Hazard statement(s): No available

Precautionary statement(s):

Prevention: No available

Response: No available

Disposal: No available

Environmental hazards: no relevant information.

Important symptoms: See Section 11 for more information.

Emergency overview: In case of accident or if you feel unwell, seek medical advice Immediately.

See Section 4 for more information.

Section 3-Composition, Information On Ingredients

Chemical characterization: Mixture

Chemical Composition	CAS No.	EC#	Weight(%)
Nickel Hydroxide	12054-48-7	235-008-5	30~40
Nickel Metal	7440-02-0	231-853-9	10~25
Copper	7440-50-8	231-159-6	< 8
PTFE Poly(tetrafluoroethylene)	9002-84-0	204-126-9	< 2
Metal Hydride Alloy	---	---	15~30
Nylon	24937-16-4	---	< 3
Iron	7439-89-6	231-096-4	< 10
Nickel	7440-02-0	231-853-9	< 10
Sodium Hydroxide	1310-73-2	231-659-4	5~10
Potassium Hydroxide(Liquid)	1310-58-3	215-181-3	3~8

Section 4- First Aid Measures

Description of first aid measures

General information No special measures required.

After eye contact

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

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 inhalation

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

After swallowing

Do not induce vomiting. Get medical attention.

Personal protective equipment for first-aid responders:

No further relevant information available.

Most important symptoms/effects, acute and delayed:

No further relevant information available.

Indication of immediate medical attention and special treatment needed:

No further relevant information available.

Section 5-Fire Fighting Measures

Suitable extinguishing media:

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

Unsuitable extinguishing media:

No further relevant information available.

Specific Hazards arising from the chemical:

Specific 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 electrolyte that may vent, ignite and produce sparks when subjected to high temperature (>150°C (302°F)), When damaged or flare-burning effect; may ignite other batteries in clothes proximity.

Specific protective actions for fire-fighters:

Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

Section 6- Accidental Release Measures

Personal precautions:

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

Protective equipment:

No further relevant information available.

Emergency procedures:

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.

Environmental precautions:

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

Methods and materials for containment and cleaning up:

All waste must refer to the United Nations, the national and local regulations for disposal.

See Section 7 for information on safe handling.

See Section 8 for information on personal protecting 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.

Information about storage in one common storage facility

Keep away from heat, avoiding the long time of sunlight.

Further information about storage conditions

Keep container tightly sealed.

Specific and use

No further relevant information available.

Section 8- Exposure Controls, Personal Protection

Control parameters

CAS No.	ACGIH	NIOSH	QSHA
12054-48-7	TLV-TWA 0.2mg/m ³	N/A	PEL-TWA 1mg/m ³
7440-02-0	TLV-TWA 1.5mg/m ³	REL-TWA0.015mg/m ³	PEL-TWA 1mg/m ³
7440-50-8	TLV-TWA0.2mg/m ³ TLV-TWA 1mg/m ³	REL-TWA1mg/m ³	PEL-TWA 5mg/m ³ PEL-TWA 15mg/m ³
9002-84-0	N/A	N/A	N/A
24937-16-4	N/A	N/A	N/A
7439-89-6	N/A	N/A	PEL-TWA 5mg/m ³ PEL-TWA 15mg/m ³
1310-73-2	TLV-Peak 2mg/m ³	REL-Peak 2mg/m ³	PEL-TWA 2mg/m ³
1310-58-3	TLV-Peak 2mg/m ³	REL-Peak 2mg/m ³	N/A

Appropriate engineering controls:

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.

Personal Protective Equipment

Respiratory protection: Wear suitable protective mask in order to reduce the respiratory system. A large number of leakage, wear chemical protective clothing, including self-contained breathing apparatus.

Hand Protection: Wear appropriate protective gloves to reduce skin contact.

Eyes Protection: Wear safety goggles or eye protection combined with respiratory protection.

Skin and Body Protection: Working environment required, wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.

Section 9-Physical and Chemical Properties

Information on basic physical and chemical properties

General information

Appearance:	Blue.
Form:	Prismatic.
Odour:	Odorless.
pH:	Not available.
Change in condition	
Melting point:	Not available.
Boiling point:	Not available.
Freezing point:	Not available.
Flash point:	Not available.
Flammability:	Not available.
Ignition temperature:	Not available.
Decomposition temperature:	Not available.
Self-igniting:	Not available.
Danger of explosion:	Not available.
Explosion limits	
Lower:	Not available.
Upper:	Not available.
Oxidizing properties:	Not available.
Vapour density:	Not available.
Density:	Not available.
Relative density:	Not available.
Vapour density:	Not available.
Evaporation rate:	Not available.
Solubility in/Miscibility with water:	Not available.
n-octanol/water partition coefficient:	Not available.
Viscosity:	Not available.
Dynamic:	Not available.
Kinematic:	Not available.
Other information:	
Voltage:	3.6V
Electric capacity:	2200mAh.

Section 10- Stability and Reactivity

Reactivity: Data not available.

Chemical stability: Stable.

Possibility of hazardous reactions: Data not available.

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

Incompatible materials: Oxidizing agents, acid, base.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

Section 11-Toxicological Information

Acute Toxicity:

CAS No.	LC50/LD50
12054-48-7	Oral(rat)LD50:1500mg/kg; Oral(Rat)LD50:1515mg/kg; Inhalation(Rat)LC50:1200mg/m3/4h
7440-02-0	Inhalation(dog)LD50:40mg/kg
7440-50-8	Oral(rat)LD50:5800mg/kg
9002-84-0	Oral(Mouse)LD50:5000mg/kg
24937-16-4	Not available.
7439-89-6	Oral(rat)LD50:98600mg/kg
1310-73-2	Not available.
1310-58-3	Oral(rat)LD50:273mg/kg

Skin irritation/corrosion:

Eye damage /irritation: No further relevant information available.

Respiratory or Skin sensitisation: No further relevant information available.

Reproductive Cell Mutagenicity: No further relevant information available.

Carcinogenicity: No further relevant information available.

Reproductive Toxicity: No further relevant information available.

Specific target organ toxicity-Single exposure: No further relevant information available.

Aspiration hazard: No further relevant information available.

Potential Health Effects: No further relevant information available.

Inhalation: No further relevant information available.

Skin contact: No further relevant information available.

Eye contact: No further relevant information available.

Ingestion: No further relevant information available.

Section 12-Ecological Information

Ecological Toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative Potential: No further relevant information available.

Mobility in Soil: No further relevant information available.

Other adverse effects: No further relevant information available.

Section 13- Disposal Considerations

Disposal methods:

Recommendation:

Consult state, local or national regulations to ensure proper disposal.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Section 14- Transport Information

UN Number	
IATA, IMDG, Model Regulation	N/A
UN Proper shipping name	
IATA, IMDG, Model Regulation	N/A
Transport hazard class(es)	
IATA, IMDG, Model Regulation	N/A
Packing Group	
IATA, IMDG, Model Regulation	N/A
Environmental hazards	
Marine pollutant:	No
Special precautions for user	Not applicable

Transport Information: NI-MH Battery(CYH-3X33SC2200P ;Customer Model No. 21392) is exempt from dangerous goods.

It is considered non-dangerous goods by the International Civil Aviation Organization (ICAO), the International Air Transport Association(IATA) IATA Special Provisions A123, International Maritime Dangerous Goods Regulations (IMDG) , or the 《Recommendations on the Transport of Dangerous Goods Model Regulations》 .

S.P.A123 This entry applies to Batteries, electric storage, not otherwise listed in Subsection 4.2 List of Dangerous Goods. Examples of such batteries are: alkali-manganese, zinc-carbon, nickel-metal hydride and nickel-cadmium batteries. Any electrical battery or battery powered device, equipment or vehicle having the potential of dangerous evolution of heat must be 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) is forbidden from transport; and (b) accidental 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.

Note: Products weighing less than 100kg in the Container.(By sea).

Transport Fashion: By air, by sea, by railway, by road.

Section 15-Regulatory Information**Safety, health and environment regulations/legislation specific for the substance or mixture**

CAS No.	TSCA	IECSC	DSL/NDSL	EINECS/ELINCS/NLP
12054-48-7	Listed	Listed	Listed DSL	Listed
7440-02-0	Listed	Listed	Listed DSL	Listed
7440-50-8	Listed	Listed	Listed DSL	Listed
9002-84-0	Listed	Listed	Listed DSL	Listed

24937-16-4	Listed	Listed	Listed DSL	Listed
7439-89-6	Listed	Listed	Listed DSL	Listed
1310-73-2	Listed	Listed	Listed DSL	Listed
1310-58-3	Listed	Listed	Listed DSL	Listed

Section 16- Additional Information

Issue Time: 2015-01-05

Issue Department: Technical department

Modification record:

Notice to reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Other information:

CAS:(Chemical Abstracts Service);

EC:(European Commission);

ACGIH:(American Conference of Governmental Industrial Hygienists);

NIOSH:(US National Institute for Occupational Safety and Health);

OSHA:(US Occupational Safety and Health);

TLV:(Threshold Limit Value);

TWA:(Time Weighted Average);

STEL:(Short Term Exposure Limit);

PEL:(Permissible Exposure Level);

REL:(Recommended Exposure Limit);

PC-STEL:(Permissible concentration-time weighted average);

PC-TWA:(Permissible concentration-short time exposure limit);

LC50:(Lethal concentration,50 percent kill);

LD50:(Lethal dose, 50 percent kill);

IARC:(International Agency for Research on Cancer);

EC50:(Median effective concentration);

BCF:(Bioconcentration Factor);

BOD:(Biochemical oxygen demand);

NOEC:(No observed effect concentration);

NTP:(US National Toxicology Program);

RTECS:(Registry of Toxic Effects of Chemical Substances);

IATA:(International Air Transport Association);

IMDG:(International Maritime Dangerous Goods);

TDG:(Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations);

TOC:(Total Organic Carbon);

TSCA:(Toxic Substances Control Act of USA);

DSL:(the Domestic Substances List of Canada);

NDSL:(the Non-domestic Substances List of Canada)

*** End of report ***