The information contained within is provided as a service to our customers and for their information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation. BiPOWER makes no warranty expressed or implied, and disclaims all liabilities from reliance on it.

Section I – Identification

1.1 Product

Product Name and Description:

Nickel Metal Hydride Battery
Rechargeable, Nominal Voltage 1.2V

1.2 Supplier

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

BiPOWER CORP.
2560 Corporate Place, Suite D203
Monterey Park, CA 91754
USA

Telephone Numbers for Information

Telephone: (323) 981-9498
Fax: (323) 981-9468
Emergency Telephone: (323) 981-9498
Date of Revision: 03-01-2008

Section II – Hazardous Ingredients

CHEMICAL NAME	CAS NO.	OSHA PEL (mg/m3)	ACGIH (TLV) (mg/m3)
Nickel (powder)	7440-02-0	1 TWA *	1 TWA
Nickel hydroxide	12054-48-7	1 TWA	1 TWA
Cobalt	7440-48-4	0.1 TWA	Dust & Fume; 0.005
Manganese	7439-96-5	Fume: 5; Ceiling Limit	Dust: 5; Fume: 1
Potassium hydroxide	1310-58-3	NA	2 Ceiling Limit
Sodium hydroxide	1310-73-2	2 TWA	2 Ceiling Limit

* TWA: Time Weighted Average concentration over an 8-hour period.

Section III — Physical/Chemical Characteristics

Melting Point: N/A
Boiling Point: N/A
Volatile by Volume %: N/A
Vapor Pressure (mm Hg): N/A
Evaporation Rate: N/A
Vapor Density (Air=1): N/A
Specific Gravity (H2O=1): N/A
Solubility in Water: N/A
Appearance and Odor: No Ordor

Section IV - Fire and Explosion Hazard Data

Flash Point: N/A
Lower Explosive Limit: N/A
Upper Explosive Limit: N/A

Extinguishing Media:

Any class of extinguishing medium may be used on the batteries or their packing material.

Special Fire Fighting Procedures:

Exposure to temperatures of above 212°F can cause venting of the liquid electrolyte. Internal shorting could also cause venting of the electrolyte. There is potential for exposure to iron, nickel, manganese, and aluminum fumes during fire; use self-contained breathing apparatus.

Respiratory protection: In all fire situations, wear self-contained breathing apparatus and chemical apron.

Hand Protection: In the event of leakage, wear gloves.

Eye Protection: Safety glasses are recommended during handling.

Section V - Health Hazard Data

Do not short circuit, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the declared operating temperature range of the product. The batteries described in this Product Safety Data Sheet are sealed units which are not hazardous during normal use.

Under normal conditions of use, the electrode materials and liquid electrolyte they contain are not exposed to the outside, provided the battery integrity is maintained and seals remain intact. Risk of exposure only in case of abuse (mechanical, thermal, electrical) which leads to the activation of rupture of the battery containers. Electrolyte leakage, electrode materials reaction with moisture/water or battery vent/explosion/fire may follow, depending upon the circumstances.

Inhalation: During normal use inhalation is an unlikely route of exposure due to containment of hazardous materials within the battery case. However, should the batteries be exposed to extreme heat or pressures causing a breach in the battery cell case, exposure to the constituents may occur.

Ingestion: If the battery case is breached in the digestive tract, the electrolyte may cause localized burns.

Skin Contact: Exposure to the electrolyte contained inside the battery may result in chemical burns. Exposure to nickel may cause dermatitis in some sensitive individuals.

Eye Contact: Exposure to the electrolyte contained inside the battery may result in severe irritation and chemical burns.

Carcinogenicity: Nickel has been identified by the National Toxicology Program (NTP) as reasonably anticipated to be a carcinogen. Cobalt has been identified by IARC as a 2B carcinogen.

Medical Conditions Generally Aggravated by Exposure:

A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure in unlikely to aggravate existing medical conditions.

Emergency and First Aid Procedures:

Inhalation: If potential for exposure to fumes or dusts occurs, remove immediately to fresh air and seek medical attention.

Ingestion: Do not induce vomiting. Seek medical attention immediately.

Skin contact: If the internal materials of an opened battery come into contact with the skin, immediately flush with water for at least 15 minutes.

Eye contact: If the contents from an opened battery come into contact with the eyes, immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention.

Further treatment: All cases of eye contamination, persistent skin irritation and casualties who have swallowed this substance or been affected by breathing its vaporous should seek medical attention.

Section VI - Reactivity Data

Stability: The batteries are stable under normal operating conditions.

Hazardous Polymerization: will not occur.

Hazardous decomposition products: oxides of nickel, cobalt and manganese.

Conditions to avoid: heat, open flames, sparks, and moisture.

Materials to avoid: Avoid electrolyte contact with acids, aldehydes and carbonate compounds.

Section VII - Spill and Leak Procedures

Spill and leaks are unlikely because cells are contained in a hermetically-sealed case. If the battery case is breached, wear protective clothing that is impervious to caustic materials and absorb or pack spill residues in inert material. Dispose in accordance with applicable state and federal laws and/or local regulations.

Section VIII - Safe Handling and Use

Ventilation Requirements: Not required under normal use.

Respiratory Protection: Not required under normal use.

Eye Protection: Not required under normal use.

Gloves: Not required under normal use.

Section IX- Precautions for Safe Handling and Use

Storage: Store in a cool place, but prevent condensation on cell or battery terminals. Elevated temperatures may result in reduced battery life. Optimum storage temperatures are between -31°F and 95°F.

Handling: Accidental short circuit will bring high temperature elevation to the battery as well as shorten the battery life. Be sure to avoid prolonged short circuit since the heat can burn attendant skin and even rupture of the battery cell case. Batteries packaged in bulk containers should not be shaken. Metal covered tables or belts used for assembly of batteries into devices can be the source of short circuits; apply insulating material to assembly work surface.

Charging: This battery is designed for recharging. A loss of voltage and capacity of batteries due to self-discharge during prolonged storage is unavoidable. Charge battery before use. Observe the specified charge rate since higher rates can cause a rise in internal gas pressure which may result in damaging heat generation or cell rupture and/or venting.

CAUTION: Do not dispose in fire, mix with other battery types, charge above specified rate, connect improperly, or short circuit, which may result in overheating, explosion or leakage of cell contents.

Section X - Recycling and Disposal

Nickel Metal Hydride batteries are not defined by the federal government as hazardous waste and are safe for disposal in the normal municipal waste stream. Recycling of battery can be done in authorized facility, through licensed waste carrier.

Section XI - Transportation

Sealed Nickel Metal Hydride batteries are considered to be "dry cell" batteries and are not subject to dangerous goods regulation for the purpose of transportation by the U.S. Department of Transportation (DOT), the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) or the International Maritime Dangerous Goods regulations (IMDG). The only DOT requirement for shipping Nickel Metal Hydride batteries is the 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)." IATA requires that batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short-circuiting.