

# **SAFETY DATA SHEET**

**Emergency Contact Information:** 

**INFOTRAC** 

Date Issued: 07/11/13 Rev: RLS Sheet 1

## 1. Product and Company Identification:

## **Product Identification:**

ENERGY+® Brand Nickel-Metal Hydride (Ni-MH) Battery

Stock Code	Cell I	Cell Manufacture Data			Nominal	Nominal	Power Rating
Customer P/N	Mfr. & P/N	Type	UL File No.	Configuration	Voltage	mA-Hours	Watt-Hours (Wh)
V200H-3ME	Varta	Button Cell	MH13654	3S1P	3.6	200	0.72
N/A	V200H						

**Company Identification:** 

Fedco Electronics, Inc. Tel: 1-920-922-6490

1363 Capital Drive Fax: 1-920-922-6750 In the United States call: 1-800-535-5053

Fond du Lac, WI 54937 Email: <u>info@fedcoelectronics.com</u> Outside the United States call collect: 1-352-323-3500

The battery referenced herein is defined as an exempt "article" and is <u>not</u> subject to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 29 CFR Subpart 1910.1200(g). This information is

provided as a service to our customers.

### 2. Hazard Identification:

Batteries consist of one or more cells which contain chemical materials stored in a hermetically sealed metal case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there is no physical danger of ignition, explosion or release of hazardous chemical materials. However, if exposed to fire, added mechanical shocks, added electric stress by misuse, the gas release vent will be operated. The battery cell case may be breached at the extreme and hazardous materials may be released including acrid or harmful fumes.

<u>Primary routes of entry:</u> Skin contact, skin absorption; eye contact, inhalation and ingestion:

Skin absorption: No effect normal use, however exposure to electrolyte may cause dermatitis.

Eye contact: No effect under normal use, however electrolyte may damage the cornea.

<u>Inhalation:</u> No effect under normal use, however fumes may irritate the lungs.

Ingestion: No effect under normal use, however ingestion of the electrolyte may irritate the mouth and lungs and cause nausea.

Reported as carcinogen: Not applicable

#### 3. Composition / Identification of Ingredients:

The ingredients contained in this lithium metal battery are as follows:

Nickel-Metal Hydride (Ni-MH)							
Common Chemical Name	Chemical Formula	CAS Number	Content - % Weight				
Nickel II Hydroxide	Ni(OH) <sub>2</sub>	12054-48-7	15-25%				
Metal Hydride Alloy	AB <sub>5</sub> Type (See Note)	AB <sub>5</sub> Type (See Note)	10-15%				
Potassium Hydroxide	КОН	1310-58-3	10-15%				
Sodium Hydroxide	NaOH	1310-73-2	<5%				
Steel & Other	N/A	N/A	5-20%				

 $\underline{Note:} \ \ Components \ of \ AB_5 \ alloy \ include: Lanthanum \ (La)-CAS \ 7439-91-0, \ Cerium \ (Ce)-CAS \ 7440-45-1, \ Neodymium \ (Nd)-CAS \ 7440-00-8 \ and \ Praseodymium \ (Pr)-CAS \ 7440-10-0.$ 



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### 4. First Aid Measures:

<u>Inhalation:</u> Not anticipated. If battery is leaking, contents may be irritating to respiratory passages. Remove to fresh air and seek medical attention if necessary.

<u>Skin contact:</u> Not anticipated. If battery is leaking, wash exposed skin with copious quantities of water. If irritation or pain persists, seek medical attention.

<u>Eye contact:</u> Not anticipated. Do not rub one's eyes. Immediately flush eyes with copious amounts of water for at least 15 minutes. If irritation continues seek medical attention.

<u>Ingestion:</u> Not anticipated. Contact the National Capital Poison Center (NCPC) at 202-635-3333 (collect) or your local poison center immediately.

### 5. Fire Fighting Measures:

Nickel-Metal Hydride batteries are not flammable under normal use.

Extinguishing Media: CO<sub>2</sub> extinguishers, halon or large amounts of water or water-based foam can be used to extinguish burning Nickel-Cadmium cells and batteries.

<u>Firefighting Equipment:</u> For large scale fires, use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

### 6. Accidental Release Measures:

Place damaged batteries that have cooled into suitable container or sealed plastic bags.

### 7. Handling and Storage:

### Handling:

Do not crush, pierce or expose the battery to excessive physical shock or vibration. Do not short circuit the (+) and (-) terminals with conductive materials such as metal coins, jewelry, metal tables or other cells and batteries. However, accidental short-circuiting for a few seconds will not seriously affect the battery. Prolonged short circuits will cause the battery to rapidly lose energy, could generate enough heat to burn skin or explode. To minimize risk of short-circuiting, use the retail carton supplied with the battery or cover the terminals with tape when transporting or storing the battery. Do not disassemble the battery.

#### Storage:

Store Nickel-Metal Hydride batteries in a dry, well-ventilated place between temperatures of  $-20^{\circ}$ C and  $+35^{\circ}$ C; and at a relative humidity of 45% to 85%. Storing at temperature above  $+70^{\circ}$ C can result in reduced service life.

#### 8. Exposure Controls and Personal Protection:

Respirator: Not required during normal operations. SCBA required in the event of a fire.

Eye/Face Protection: Not required beyond safety practices of employer.

Gloves: Not required for handling of battery.

Foot Protection: Steel toed shoes recommended for handling large pallets.

## 9. Physical and Chemical Properties:

This section is not applicable. Batteries are contained in sealed solid metal cases.

#### 10. Stability and Reactivity:

<u>Stability:</u> Product is stable under the conditions described in Section 7.

<u>Conditions to avoid:</u> None during normal operation. Avoid exposure to heat above +70° C, open flame, crushing, piercing, deforming, mutilating, short circuit and exposure to long periods of high humidity.

### 11. <u>Toxicological Information:</u>

This product does not emit toxicological properties during routine handling and use. If battery ruptures, overexposure to internal contents and corrosive fumes may irritate eyes, mucous membranes, skin and lungs. See Section 4.

### 12. Ecological Information:

Nickel-Metal Hydride batteries pose no risks to persons, plants or animals.



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### 13. <u>Disposal Considerations:</u>

Do not incinerate or subject battery cells to temperatures above  $+70^{\circ}$ C. Regulations regarding the proper disposal and recycling of rechargeable batteries vary from country to country. Although classified by the U.S. Federal Government as non-hazardous waste Nickel-Metal Hydride batteries contain materials that can be recycled. Fedco Electronics, Inc. pays license fees to Call2Recycle in the United States and Canada. (f/k/a The Rechargeable Battery Recycling Corporation or RBRC) To find a drop-off location in the U.S. and Canada call 1-800-822-8837 or go to the Call2Recycle web site at: <a href="https://www.call2recycle.org">www.call2recycle.org</a>.

In the European Union go to the RECHARGE web-site at: www.rechargebatteries.org/html/recharge-knowledge-recycling.html

## 14. Transportation Information:

Nickel-Metal Hydride batteries are considered to be "dry cell" batteries and are unregulated for purposes of transportation by the U.S. Department of Transportation (DOT), the International Civil Aviation Administration (ICAO), the International Air Transport Association (IATA), and the International Maritime Organization (IMO).

- The only requirements for shipping these batteries by DOT is Special Provision 130, which states: "Batteries, dry are not subject to the requirements of this sub-chapter 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 A132 which states: "An electrical battery 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) is forbidden from transportation.
- By ocean, the International Maritime Organization (IMO) rates Nickel-Metal Hydride batteries as Class 9 dangerous goods under UN3496 and Special Provisions 177 and 963 which allows a total quantity of less than 100kg gross mass to be transported as non-regulated.

## 15. Regulatory Information:

Not applicable.

## 16. Other Information:

The information contained in this Safety Data Sheet is based on the present state of knowledge and current legislation. This safety data sheet provides guidance on health, safety, environmental and transportation aspects of the product and should not be construed as any guarantee or warranty, either expressed or implied, of technical performance or suitability for particular applications.

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