Bren-Tronics, Inc.
"Intelligent Military Batteries & Charging Systems"™
10 Brayton Court, Commack, NY 11725-3197

PRODUCT INFORMATION SHEET

From: Bren-Tronics Inc.
10 Brayton Court
Commack, N.Y. 11725

Telephone: 631-499-5155
Fax: 631-499-5504
www.bren-tronics.com

Emergency Telephone: If no answer above, contact Chem-Tel Corporation at 1-800-255-3924 or Int'l +1 813-248-0585

Product: Battery, dry, sealed (Nickel metal-hydride)

P/N: BB-390B/U

Effective Date: 30 Sep 2021

[**Alternate P/N's:** BB-390A/U, BT-70790, BT-70790B]

The batteries referenced herein are exempt articles and are not subject to OSHA Hazard Communication Standard requirements. This entire document is provided solely as an information source for the purpose of assisting our customers.

According to OSHA Regulation (29 CFR 1910.1200), Canadian WHMIS or GHS requirements, and REACH regulation (EC 1907/2006, Art 31), batteries have been defined as an 'ARTICLES', with no intended release. OSHA has defined an 'article' as a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than minute or trace amounts of a hazardous chemical and does not pose a physical hazard or health risk to employees.

Because all of our batteries are defined as "articles", they are exempt from the legal requirements of the Hazard Communication Standard to provide an SDS or MSDS.

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1. Product Identification

Product Name: Battery, Dry, sealed
Chemical System: Nickel Metal Hydride, (Rechargeable)
NSN: 6140-01-490-4317
Nominal Weight: 4.0 lb (1.8 kg)
Nominal Voltage: 24.0 V (2 ea 12.0 V sections)

2. Composition/Information on Ingredients

Although the chemical composition of the various cell manufacturers is proprietary, the following is typical of the chemistry.

Ingredients	CAS No.	--mg/m³-- OSHA PEL	--mg/m³-- ACGIH TLV	Approximate % Of Total Cell Weight
Nickel (powder)	7440-02-0	1	1	8
Nickel Hydroxide	12054-48-7	1	1	24
Cobalt	7440-48-4	0.1	0.1	3
Manganese	7439-96-5	5	5	1.3
Lanthanum	7439-91-0	n/a	n/a	4
Cerium	7440-45-1	n/a	n/a	-
Neodymium	7440-00-8	n/a	n/a	4
Potassium Hydroxide	1310-58-3	2	2	2.5
Sodium Hydroxide	1310-73-2	2	2	1

Each battery cell is contained in a sealed metal can, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, hazardous materials are fully contained inside the battery cell. Each cell is a sealed container enclosing the electrodes and electrolyte.

3. Hazards Identification

Routes of Entry:
Inhalation:
Not during normal usage. If cell case is breached from extreme heat/pressure, exposure to ingredients could occur.
Skin:
Same. Electrolyte contact could cause caustic burn.
Ingestion?
No.
Potential Health Effects:
Chronic exposure to nickel may result in cancer, dermal contact may result in dermatitis in sensitive individuals. Cobalt has been identified as a 2B carcinogen.
Signs/Symptoms of Exposure:
N/A

4. First Aid Measures

Emergency & First Aid Procedures:
If leakage from cell contacts: Skin – flush with water; wash with soap and water. If irritation persists, contact physician. Eyes – immediately flush with copious amounts of water for 15 minutes, then see physician at once.
Respiratory Protection (Specify Type):
As in any fire situation, use self-contained breathing apparatus, (SCBA)

5. Fire Fighting Measures

Extinguishing Media:
Any class of extinguishing medium may be used on the batteries or their packing material.
Special Fire Fighting Procedures:
Fire fighters should use self-contained breathing apparatus when a large number of cells are involved.
Unusual Fire and Explosion Hazards:
May burst when subject to extreme heat.

6. Accidental Release Measures

Ventilation:
None under normal use conditions.
Protective Gloves:
When handling leaking or open batteries.
Eye Protection:
Wear safety glasses with side shields if handling a leaking battery.

7. Handling and Storage

Precautions to be taken in Handling and Storage:
Accidental short circuit could bring high temperature elevation to the battery and will shorten the battery life. Ni-MH batteries have internal short circuit protection, but condition should still be avoided. Any resulting heat can burn attendant skin and even rupture the battery cell case.
Other Precautions:
Avoid incineration or mutilation. Use battery in proper equipment and observe proper polarity. Use only proper chargers for NiCd and NiMH batteries. Store in cool, dry place.

8. Exposure Controls/Personal Protection

Steps to be Taken in Case Material is Released or Spilled:
Avoid skin and eye contact. Collect all released material in a plastic bag for waste.

9. Physical Properties

Appearance: Rectangular box shape

10. Stability and Reactivity

Stability:
Stable
Conditions to Avoid:
Do not heat or dissemble. Avoid heat, open flames, sparks and moisture.
Hazardous Decomposition or By-products:
Oxides of nickel.
Hazardous Polymerization:
Will not occur.
Incompatible Materials:
The battery cells are encased in a non-reactive container; however, if the container is breached, avoid contact of internal battery components with acids, aldehydes and carbonate compounds.

11.Toxicological Information

Carcinogenicity:	NTP?	IARC Monograph?	OSHA Regulated?
Nickel	Yes	-	-
Cobalt	-	2B	-

12.Ecological Information

N/A

13.Disposal Considerations

Waste Disposal Method:
Do not incinerate. Dispose in accordance with local, state, and federal regulations. Small quantities may be allowed in household trash. Large quantities of batteries containing lithium cells may be subject to Federal, State or local regulations.

Cont'd

14.Transport Information

Domestic Transportation within the U.S pursuant to 49 CFR (includes land, air, and vessel):
Nickel metal hydride batteries are listed as hazardous materials: “UN3496, Batteries, nickel metal hydride.” They also are subject to Special Provisions 130 and 340.

When shipped by air or ground, the batteries are generally excepted from the U.S. hazardous materials regulations provided they meet the requirements of Special Provision 130 of 49 CFR, which requires ALL BATTERIES BE PACKED IN SUCH A WAY TO PREVENT SHORT CIRCUITS or the generation of dangerous quantities of heat and be packaged in ‘strong outer packaging’ that prevents spillage of contents.

Nickel metal hydride batteries with a voltage exceeding 9 V and transported by aircraft must have the words “not restricted” marked on each package or on a transport document such as an air waybill accompanying the shipment.

Nickel metal hydride batteries transported by ocean in quantities over 100 kg gross weight, are subject to additional restrictions in accordance Special Provision 340. Hazardous materials shipping paper must include "UN3496, Batteries, nickel-metal hydride, 9." No markings or labels are required on the packages and there is no weight limit on packages.

International Transportation pursuant to IATA Dangerous Goods Regulations (for air transport) and IMDG Code (ocean transport):

Nickel metal hydride batteries are listed as dangerous goods: “UN3496, Batteries, nickel metal hydride.”

The batteries are generally excepted from the dangerous goods regulations when transported by air provided they comply with Special Provision A199 of the IATA DGR, which requires THE BATTERIES BE PACKED IN SUCH A WAY TO PREVENT SHORT CIRCUITS. The words “Not Restricted” and “Special ProvisionA199” must be included on the Air Waybill when an Air Waybill is issued

Nickel metal hydride batteries transported by ocean in quantities over 100 kg gross weight are subject to additional restrictions in accordance with Special Provision 963 of the IMDG Code. A dangerous goods declaration must include "UN3496, Batteries, nickel-metal hydride, 9." No markings or labels are required on the packages and there is no weight limit on packages.

15.Regulatory Information

Batteries are considered to be “articles” and thus are exempt from TSCA regulation.

16.Other Information

Avoid mechanical or electrical abuse. **DO NOT** short circuit or install incorrectly. Batteries may explode, pyrolize or vent if disassembled, crushed, recharged incorrectly or exposed to high temperatures. Install batteries in accordance with equipment instructions

This battery is designed for recharging. A loss of voltage and capacity of batteries due to self-discharging 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.