

# Material safety data sheet

## Section I -Product Identification

Product Name: Nickel Metal Hydride Battery

Nominal Voltage:1.2V

Chemical System: Nickel/Metal Hydride

Designated for Recharge:

 Yes
  No

## Section II -Hazardous Ingredients/Identity Information

Chemical Name	CAS No.
Nickel Hydroxide	12054-48-4
Cobalt	7440-48-4
Manganese	7439-96-5
Lanthanum	7439-91-0
Cerium	7440-45-1
Potassium Hydroxide	1310-58-3
Sodium Hydroxide	1310-73-2
Lithium Hydroxide	1310-65-2

The above information is provided for the user's information only.

## Section III-physical Data for Battery

Melting point(°C)	Boiling point(°C)	% Volatile by Volume
NA	NA	NA
Vapor pressure (mmHg)	Evaporation Rate	Vapor Density (Air=1)
NA	NA	NA
Specific Gravity(H <sub>2</sub> O)	Solubility in water	Appearance and Odor
NA	NA	No Odor

## Section IV-Fire and Explosion Hazard Data

Flash Point: NA Lower Explosive Limit :NA Upper Explosive Limit: NA

Extinguishing Media: Water, Foam, Dry .Any class of extinguishing medium may be used on the batteries or their packing material.

Special Fire Fighting Procedures: Exposure to temperatures of above 100°C can cause venting of the liquid electrolyte. Internal shorting could also cause venting of the electrolyte. There is potential for exposure to iron, nickel, cobalt, rare earth metals, manganese, and aluminum fumes during fire; use self-contained breathing apparatus.

## Section V -Health Hazard Data

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.

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

Inhalation: During normal use inhalation is an unlikely route of exposure due to containment of hazardous materials within battery case.

## Section VI-Reactivity Data

The batteries are stable under normal operating condition.

Hazardous polymerization will not occur

Hazardous decomposition products: oxides of nickel, cobalt, manganese; lanthanum, and cerium

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

Incompatibilities (materials to avoid):The battery cells are encased in a non-reactive container; if the container is breached, avoid contact of internal battery components with acids, aldehydes, and carbamate compounds.