

## SAFETY DATA SHEET (SDS)

### SECTION I – PRODUCT AND MANUFACTURER INFORMATION

Product Name: NiCd Rechargeable Battery  
Chemical Systems: Nickel-Cadmium  
Sizes: All  
Designed for Recharge: Yes

#### **Company Information:**

PowerRite  
Mailing address: P.O. Box 481888

#### **Manufacturer:**

Manufactured for PowerRite  
Telephone: 877-797-7483

### SECTION II – HAZARDS IDENTIFICATION

#### **Hazard Statements**

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- Harmful if swallowed
- Harmful in contact with skin
- Fatal if inhaled
- Causes skin irritation
- Causes serious eye irritation
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- May cause an allergic skin reaction
- Suspected of causing genetic defects
- May cause cancer
- May damage fertility or the unborn child
- Causes damage to organs through prolonged or repeated exposure
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## **Precautionary Statements – Prevention**

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not breathe dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Wear respiratory protection
- In case of inadequate ventilation wear respiratory protection
- Contaminated work clothing should not be allowed out of the workplace
- Wear protective gloves/protective clothing/eye protection/face protection

## **Precautionary Statements - Response**

- If exposed or concerned: Get medical advice/attention
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention
- IF ON SKIN: Wash with plenty of soap and water
- Take off contaminated clothing and wash it before reuse
- Call a poison center or doctor/physician if you feel unwell
- If skin irritation or rash occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Immediately call a poison center or doctor/physician
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Rinse mouth

## **Precautionary Statements - Storage**

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed

## **Precautionary Statements - Disposal**

- Dispose of contents/container to an approved waste disposal plant

## **Other Hazards**

- Very toxic to aquatic life with long lasting effects

## SECTION III - INFORMATION ON INGREDIENTS

**WARNING:** The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

MATERIAL OR INGREDIENTS	% W. t.	TLV (ACGIH Threshold Limit Values)
Cadmium as cadmium metal (CAS# 7440-43-9) cadmium oxide (CAS# 1306-19-0) cadmium hydroxide (CAS# 21041-95-2)	8-22	0.01mg/m <sup>3</sup> TWA (as Cd)  0.002mg/m <sup>3</sup> TWA (as Cd respirable fraction)
Cobalt as cobalt metal (CAS# 7440-48-4) cobalt oxide (CAS# 1307-96-6) cobalt hydroxide (CAS# 21041-93-0)	0.5-2	0.02mg/m <sup>3</sup> TWA (as Co)
Nickel as nickel metal (CAS# 7440-02-0) nickel oxide (CAS# 1313-99-1) nickel hydroxide (CAS# 12054-48-7)	20-32	1.5mg/m <sup>3</sup> TWA (as inhalable Ni)  0.2mg/m <sup>3</sup> TWA (as inhalable Ni, insoluble compounds)
Lithium Hydroxide (CAS# 1310-65-2)	0-4	None Established
Sodium Hydroxide (CAS# 1310-73-2)	0-4	Ceiling 2mg/m <sup>3</sup> STEL
Steel (CAS# 7439-89-6)	15-25	NA
Water, paper, plastic, other	Balance	NA

## SECTION IV – FIRST-AID MEASURES

### **Ingestion:**

Swallowing a battery can be harmful. Seek medical attention immediately. Call The National Capital Poison Control Center (202-625-3333) collect, or your local Poison Control Center (800-222-1222), day or night, for advice and follow-up.

### **Inhalation:**

Contents of an open battery can cause respiratory irritation. Provide fresh air and seek medical attention.

### **Skin Contact:**

Contents of an open battery can cause skin irritation and/or chemical burns. Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention.

### **Eye Contact:**

Contents of an open battery can cause severe irritation and/or chemical burns. Immediately flush eyes thoroughly with copious quantities of flowing lukewarm water for a minimum of 15 minutes. Seek immediate medical attention.

## SECTION V – FIRE FIGHTING MEASURES

- If fire or explosion occurs when batteries are on charge, shut off power to charger.
- In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing materials. Battery cells may rupture when exposed to excessive heat result in the release of flammable or corrosive materials.
- Fire fighters should wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products.

## SECTION VI - SPILL OR LEAK PROCEDURES

### **Procedures to Contain and Clean Up Leaks or Spills:**

In the event of a battery rupture, prevent skin contact and collect all released material in a plastic lined metal container.

### **Reporting Procedure:**

Report all spills in accordance with Federal, State and Local reporting requirements.

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

### **Storage:**

Store in a cool, dry, and well-ventilated area. Elevated temperature can result in shortened battery life. Storing unpackaged cells together could result in cell shorting and heat build-up.

### **Mechanical Containment:**

Do not obstruct safety release vents on batteries. Encapsulation (potting) of batteries will not allow cell venting and can cause high-pressure rupture.

### **Handling:**

- Accidental short circuit for a few seconds will not seriously affect the battery. However, this battery is capable of delivering very high short circuit currents. Prolonged short circuits will cause high cell temperatures that can cause skin burns. Sources of short circuits include jumbled batteries in bulk containers, metal jewelry, and metal covered tables or metal belts used for assembly of batteries into devices.
- If soldering or welding to the battery is required, use of tabbed batteries is recommended.
- Do not open battery. The negative electrode material may be pyrophoric. Should an individual cell from a battery become disassembled, spontaneous combustion of the negative electrode is possible. That is much more like to happen if the electrode is removed from its metal container. There can be a delay between exposure to air and spontaneous combustion.

### **Charging:**

This battery is made to be charged many times. Because it gradually loses its charge over a few months, it is good practice to charge battery before use. Use recommended charger. Improper charging can cause heat damage or even high pressure rupture. Observe proper charging polarity.

**SECTION VIII – PERSONAL PROTECTION**

Respiratory Protection (Specify Type)	Not necessary under normal conditions
Ventilation	Not necessary under normal conditions
Protective Gloves	Not necessary under normal conditions
Eye Protection	Not necessary under normal conditions
Other Protective Clothing	Not necessary under normal conditions

**SECTION IX - PHYSICAL DATA**

Boiling Point @ 760 mm Hg (°C)	NA
Vapor Pressure (mm Hg @ 25 °C)	NA
Vapor Density (Air = 1)	NA
Density (grams/cc)	NA
Percent Volatile by Volume (%)	NA
Evaporation Rate (Butyl Acetate = 1)	NA
Physical State	NA
Solubility in Water (% by Weight)	NA
pH	NA
Appearance and Odor	Geometric solid object

**SECTION X - REACTIVITY DATA**

Stable or Unstable	Stable
Incompatibility (Materials to Avoid)	NA
Hazardous Decomposition Products	NA
Decomposition Temperature (0 °F)	NA
Hazardous Polymerization	Will Not Occur
Conditions to Avoid	Avoid Electrical Shorting

**SECTION XI - HEALTH HAZARD DATA**

Under normal conditions of use, the battery is hermetically sealed. (Note: Nickel, nickel compounds, cadmium, cadmium compounds, cobalt, and cobalt compounds are listed as possible carcinogens by IARC or NTP)

Threshold Limit Value (TLV) and Source	NA
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**SECTION XII – FIRE & EXPLOSION HAZARD DATA**

Flash Point	NA
Flammable Limits in Air (%)	NA
Lower (LEL)	NA
Upper (LEL)	NA
Extinguishing Media	Use water, foam or dry powder, as appropriate
Auto-Ignition	NA

**SECTION XIII – Disposal Method**

Disposal in accordance with Federal, State and Local reporting requirements.

**SECTION XIV – TRANSPORTATION**

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

The only requirements for shipping these batteries by ICAO and IATA is Special Provision A123 (under 56<sup>th</sup> 2015 edition) which states ‘An electrical battery or battery powered device having the potential of dangerous evolution 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; or in the case of equipment , by disconnection of the battery and protection of exposed terminals) is forbidden from transportation.’

By ocean the International Maritime Organization (IMO), 2012 edition does not regulate these batteries. Sealed Ni-Cd Rechargeable Battery with sleeve as “Dry Batteries”, “NON-DG” and protected from short-circuit

**SECTION XV – REGULATORY INFORMATION**

These products are “article(s)” that do not release a covered toxic chemical under the normal conditions of processing or use. They are not subject to the requirements of the Emergency Planning and Community Right-To-Know Act. Notification is not required.

**SECTION XVI – OTHER INFORMATION**

None

***The battery referenced herein is defined as “article” and is NOT subject to the 29 CFR 1910.1200 OSHA Hazard Communication Standard requirement or to the Canadian WHMIS requirement. Hence, a safety data sheet (SDS) is not required. The information and recommendation set forth herein are supplied as a service. They are made in good faith and believed to be accurate as of the date of preparation. PowerRite makes no warranty, either express or implied, with respect to this information and disclaims all liability from reliance on it.***

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