

***The battery referenced herein is exempted article and is not subject to the 29 CFR 1910.1200 OSHA requirement or to the Canadian WHMIS requirement. This sheet is supplied as a service to our customers.***

## **Material Safety Data Sheet (MSDS)**

Product Name: Lithium Manganese Dioxide (CR Type) Battery  
Sizes : CR123A, CR2, CR-V3, CRP2, 2CR5  
Trade Name: Power\*Rite  
Designed for Rechargeable: No

### ***SECTION I- MANUFACTURER INFORMATION***

Manufactured for Power\*Rite Batteries  
Telephone Number for Information: 877-797-7483

### ***SECTION II- HAZARDOUS INGREDIENTS***

#### ***IMPORTANT NOTE:***

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

<b><i>MATERIAL OR INGREDIENTS</i></b>	<b><i>% W.t.</i></b>
Stainless Steel	40-50
Manganese Dioxide (CAS# 1313-13-9)	30-40
Lithium (CAS# 7439-93-2)	1-4
Propylene Carbonate (CAS# 108-32-7)	2-6
Dimethoxyether (CAS# 110-71-4)	4-8

### ***SECTION III- HAZARDS IDENTIFICATION***

WARNING: Harmful if swallowed. May vent, leak, and/or explode if opened, recharged, connected improperly, and/or exposed to fire or high temperatures. Vapors/fumes from damaged batteries may cause respiratory tract irritation. Damaged batteries may cause skin and eye burns.

## **SECTION IV- FIRE HAZARD DATA**

### *Extinguishing Media:*

Use water, foam, or dry powder, as appropriate for adjacent fire.

### *Special Fire-Fighting Procedures:*

As with any fire, avoid inhalation of hazardous decomposition products. Wear self-contained breathing apparatus and protective clothing.

*Special Exposure Hazards:* Fire or excess heat may cause battery to vent and/or explode or leak hazardous vapors or corrosive material.

### *Unusual Fire and Explosion Hazards:*

Fire or high temperatures may cause battery to vent and/or explode or leak hazardous vapors or corrosive material. Damaged or opened batteries can result in rapid heating and the release of hazardous vapors or corrosive material.

## **SECTION V- HEALTH HAZARD DATA**

Under normal conditions of use, the battery is hermetically sealed.

### *Inhalation:*

If vapors or fumes from vented or leaking battery are irritating to respiratory tract, move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

### *Eyes:*

In case of contact with battery contents (liquid or metal), immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

### *Skin:*

In case of contact with battery contents (liquid or metal), immediately remove metal fragments and flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. Get medical attention immediately.

### *Ingestion:*

Call a physician or poison control center immediately for any actual or suspected ingestion. All batteries may be harmful if swallowed. Do NOT induce vomiting. Batteries may lodge in the

throat or digestive tract and fragment. If battery was leaking or was chewed, rinse mouth thoroughly with water.

## ***SECTION VI- PRECAUTIONS FOR SAFE HANDLING AND USE***

### *Storage:*

Store in cool, dry, well-ventilated area. Protect from direct sunlight. Storage above 21°C (70°F) may affect product quality. Do not store in a manner that allows terminals to short circuit. Extended short circuiting creates high temperatures in the battery. High temperatures can cause leakage and/or explosion. Short circuiting may reduce battery service life.

### *Prevention of Fire and Explosion:*

**DO NOT DISASSEMBLE.**

**DO NOT RECHARGE.** Charging may result in electrolyte leakage and/or explosion.

Keep away from heat and flame.

Avoid the use of old and new batteries or batteries of varying sizes and types in the same battery assembly. The batteries electrical characteristics and capabilities may vary and damage may result to the batteries or electrical equipment.

Avoid encasing in airtight compartments. Flammable hydrogen gas, normally generated, can form explosive mixtures. Provisions for venting must be provided.

Avoid reversing polarity within a device or a battery assembly. To do so may cause leakage and/or explosion.

### *Personal Precautionary Measures:*

If battery has been damaged, do not breathe fumes or vapors. Do not get battery contents in eyes, on skin, or on clothing. Wash thoroughly after handling.

## ***SECTION VII- EXPOSURE CONTROLS/PERSONAL PROTECTION***

### *Respiratory Protection:*

None should be needed.

### *Eye Protection:*

When handling a damaged battery, wear safety glasses with side shields (or goggles).

### *Skin Protection:*

When handling a damaged battery, wear impervious gloves.

*Recommended Decontamination Facilities:*

Washing facilities

***SECTION VIII- TOXICOLOGICAL INFORMATION***

*General:*

Since the materials in this battery are sealed in the battery case, the potential for exposure to the components of the battery is negligible when the battery is used as directed. However, technical or electrical abuse of the battery may result in the release of battery contents.

**Inhalation:** Harmful by inhalation. May cause irritation to the mucous membranes and upper respiratory tract.

**Eyes:** Contact with electrolyte (liquid) causes burns. Vapours or fumes may cause irritation. Contact with metal fragments may cause burns or mechanical injury.

**Skin:** Contact with electrolyte (liquid) causes burns. Contact with metal fragments may cause burns or mechanical injury. Harmful in contact with skin. Vapours or fumes may cause irritation.

**Ingestion:** All batteries may be harmful if swallowed. May cause burns of the gastrointestinal tract.

**Note to Physicians:**

Battery ingestions should not be managed in the same way as other small metallic object ingestions, eg., coins. The position and integrity of the battery in the gastrointestinal tract should be assessed and monitored by x-ray. Leaking batteries may cause necrosis and tissue damage. If a battery containing mercury leaks (refer to Section 2 for composition information) in the stomach, there may be a small hazard from mercury toxicity and management should be determined on an individual basis. Most batteries smaller than 22-25 mm in diameter will pass safely through the gut. Larger batteries or batteries that lodge in the gastrointestinal tract may have to be removed endoscopically or surgically.

**Chronic Effects:** Not specified

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The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.