Spectrum Brands, Inc.
Rayovac Division
3001 Deming Way
Middleton, WI 53562-1431
Phone: (608) 275-3340
Fax: (608) 275-4577
http://www.rayovac.com

# SAFETY DATA SHEET

The Safety Data Sheet is supplied as a service to you. For other related information, please visit:
http://www.rayovac.com/Learning/Technical-OEM/Safety-Data-Sheets.aspx

## 1. IDENTIFICATION

PRODUCT NAME: Lithium Carbon Monofluoride Battery (BR)
SIZES: Consumer AA, D and Button sizes
EMERGENCY HOTLINE: 800-424-9300 (24 hr, Chemtrec)

## 2. HAZARD IDENTIFICATION

We would like to inform our customers that these batteries are exempt articles and are not subject to the 29 CFR 1910.1200 OSHA requirements, Canadian WHMIS requirements or GHS requirements.

**Emergency Overview**

OSHA Hazards-not applicable
Target Organs-not applicable
GHS Classification-not applicable
GHS Label Elements, including precautionary Statement-not applicable
Pictogram-not applicable
Signal words-not applicable
Hazard statements-not applicable
Precautionary statements-not applicable

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| INGREDIENT NAME | CAS # | % | TLV*/**TWA |
|---|---|---|---|
| Aluminum (as metal) | 91728-14-2 | 8-12 | 15 mg/m3 as dust* |
| Steel (as metal) and plastic | -- | 21-44 | None Established |
| Carbon Monofluoride | 51311-17-2 | 18-35 | 3.5 mg/m3 as carbon |
| Carbon Black | 1333-86-4 | 1-3 | 3.5 mg/m3 (TWA respirable**) |
| Nickel as (metal) | 7440-02-0 | 0.3-2 | 1.0 mg/m3** |
| Propylene Carbonate | 108-32-7 | 7-11 | None Established |
| Dimethoxyethane (1,2) | 110-71-4 | 7-11 | None Established |
| Lithium | 7439-93-2 | 5-93 | None Established |
| Lithium Tetrafluoroborate | 14283-07-9 | 1-3 | None Established |
| Polyvinlidene Fluoride | 24937-79-9 | 0.5-2 | 2.5 mg/m3 as Fluorides* |

**Source: OSHA 29 CFR 1910.1000 Table Z-1, 2 or 3 11-01-2012*

## 4. FIRST AID INFORMATION

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: NA

EFFECTS OF OVEREXPOSURE: None in normal use

EMERGENCY FIRST AID PROCEDURES:

**Skin and Eyes:**

Do not pick up a shorting battery as it may cause a burn. Lithium reacts with moisture; do not pick up a damaged or hot battery without proper hand protection. Get immediate medical attention when eyes may have been exposed to battery contents from a ruptured battery

**Swallowing:**

*LITHIUM COIN CELL SAFETY NOTICE: Keep lithium coin batteries out of the reach of small children; coin cell batteries can be accidentally ingested. If ingested, these batteries may leak harmful contents causing chemical burns, perforation of soft tissue, and in severe cases may cause death. Lithium coin batteries must be removed immediately if swallowed. Seek medical attention immediately. If you or your doctor suspects that a battery has been ingested-for assistance in the US call the NATIONAL BATTERY INGESTION HOTLINE any time at (202) 625-3333: in Canada call 416-813-5900*

For more information, please visit:

http://www.nema.org/Policy/Environmental-Stewardship/Documents/batteryingest.pdf

## 5. FIRE FIGHTING MEASURES

| | |
|---|---|
| FLASH POINT: | NA |
| LOWER (LEL): | NA |
| FLAMMABLE LIMITS IN AIR (%): | NA |
| UPPER (UEL): | NA |
| EXTINGUISHING MEDIA: | Use foam, dry powder, Lithex™, or water* as appropriate. |
| AUTO-IGNITION: | NA |

**SPECIAL FIRE FIGHTING PROCEDURES:** As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products (See section 2). Water will cool the fire but may react with available lithium in the batteries producing flammable hydrogen.

**SPECIAL FIRE OR EXPLOSION HAZARDS:** DO NOT RECHARGE. As a typical sealed battery they may rupture when exposed to excessive heat. Rupture may expose lithium to moisture causing it to react or release flammable or corrosive materials. Do not accumulate undischarged batteries together. ***Do not use water on these batteries if fighting fire within an enclosed area. Evolving hydrogen may build up and auto-ignite.***

## 6. ACCIDENTAL RELEASE MEASURES

**TO CONTAIN AND CLEAN UP LEAKS OR SPILLS:** In the event of a battery rupture, prevent skin contact and contact with moisture or flammable/combustible materials. If possible, collect all released material in a metal container. Place damaged cells in mineral oil or graphite if available.

**REPORTING PROCEDURE:** Report all spills in accordance with Federal, State and Local reporting requirements.

## 7. HANDLING AND STORAGE

Store batteries in a dry place. Storing unpackaged cells together with other combustible materials could result in cell shorting and fire. Do not recharge. Do not puncture or abuse.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

| | | |
|---|---|---|
| RESPIRATORY PROTECTION (SPECIFY TYPE): | | NA |
| VENTILATION: | Local Exhaust: | NA |
| | Mechanical (General): | NA |
| | Special: | NA |
| | Other: | NA |
| PROTECTIVE GLOVES: | | NA |
| EYE PROTECTION: | | NA |
| OTHER PROTECTIVE CLOTHING: | | NA |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|---|---|---|
| Boiling Point @ 760 mm Hg (°C): | NA | Percent Volatile by Volume (%): | NA |
| Vapor Pressure (mm Hg @ 25°C): | NA | Evaporation Rate (Butyl Acetate = 1): | NA |
| Vapor Density (Air = 1): | NA | Physical State: | NA |
| Density (grams/cc): | NA | Solubility in Water (% by Weight): | NA |
| pH: | NA | | |
| Appearance and Odor: | Cylindrical assembled and sealed solid product – AA and D sizes | | |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| 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, puncturing or deforming |

## 11. Toxicological Information

| INGREDIENT NAME | CAS # | % | TWA/TLV |
|---|---|---|---|
| Aluminum (as metal) | 91728-14-2 | 8-12 | 15 mg/m3 as dust |
| Steel (as metal) and plastic | -- | 21-44 | None Established |
| Carbon Monofluoride | 51311-17-2 | 18-35 | 3.5 mg/m3 as carbon |
| Carbon Black | 1333-86-4 | 1-3 | 3.5 mg/m3 (TWA respirable) |
| Nickel as (metal) | 7440-02-0 | 0.3-2 | 1.0 mg/m3 |
| Propylene Carbonate | 108-32-7 | 7-11 | None Established |
| Dimethoxyethane (1,2) | 110-71-4 | 7-11 | None Established |
| Lithium | 7439-93-2 | 5-93 | None Established |
| Lithium Tetrafluoroborate | 14283-07-9 | 1-3 | None Established |
| Polyvinlidene Fluoride | 24937-79-9 | 0.5-2 | No Data Available |

**Source: OSHA 29 CFR 1910.1000 Table Z-1, 2 or 3  11-01-2012*

## 12. Ecological Information

Consumers should dispose of discharged batteries through waste disposal services or legitimate collection outlets. Those collecting batteries should follow state and federal regulations. Partially discharged damaged batteries can overheat and cause fires in the presence of other combustible materials.

## 13. Disposal Considerations

Always comply with Federal, state or local requirements. Hazardous waste generators should check with the USEPA or their state authorized agency for guidance.
http://www.nema.org/Policy/Environmental-Stewardship/Documents/Companies%20Claiming%20to%20Recycle.MARCH2005.pdf

## 14. Transportation Information

TRANSPORTATION-SHIPPING (Coin and Button Cell): These are lithium metal coin cells, also known as primary or non-rechargeable lithium. These BR cells, unless exempted, are regulated as Class 9, see UN3090. Our BR cells meet the general regulatory requirements for shipping Lithium batteries and, when in our original packaging, meet the requirements listed in the Special Instructions or Packing Instructions noted below and may be classified as non-dangerous goods for transportation.
USDOT – See 49 CFR 173.185 and Special Provision 188. Also note: these cells are forbidden on passenger aircraft to/from or within the US and must be labeled accordingly even for ground or ocean transport.
IMO/Ocean – See Special Provisions 188 and 230.
ICAO/IATA – These Rayovac BR cells can be shipped by air in accordance with International Air Transport Association (IATA), Section II, since these cells have less than 0.3 g of Lithium per cell. See Packing Instructions: PI 968 (Batteries), PI 969 (Batteries, packed with equipment) and PI 970 (Batteries, contained in equipment) as applicable.

TRANSPORTATION-SHIPPING (AA and D size): These are lithium metal batteries, also known as primary or non-rechargeable lithium. These BR batteries, unless exempted, are regulated as Class 9, see UN3090. Our BR batteries meet the general regulatory requirements for shipping Lithium batteries and, when in our original packaging, meet the requirements listed in the Special Instructions or Packing Instructions.

USDOT – See 49 CFR 173.185 and Special Provisions 189 & 190. The AA batteries are considered Medium Lithium Batteries while the D batteries are fully regulated Large Lithium Batteries. Also note: these cells are forbidden on passenger aircraft to/from or within the US and must be labeled accordingly even for ground or ocean transport.

IMO/Ocean – See Special Provisions 188 and 230, both battery sizes are fully regulated.

ICAO/IATA – These Rayovac BR batteries can be shipped by air in accordance with International Air Transport Association (IATA), Section 1A as fully regulated. See Packing Instructions: PI 968 (Batteries), PI 969 (Batteries, packed with equipment) and PI 970 (Batteries, contained in equipment) as applicable.

## 15. REGULATORY INFORMATION

**SARA 313:** Notification is not required because these products are article(s) that do not release a covered toxic chemical under the normal conditions of storage, use, or handling.

NOTICE: The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Spectrum Brands Inc. (Rayovac) makes no warranty expressed or implied.