



# SAFETY DATA SHEET

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The Safety Data Sheet is supplied as a service to you. For other related information, please visit:  
<http://www.rayovac.com>

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## 1. IDENTIFICATION

PRODUCT NAME: Lithium 9 Volt Battery  
SIZES: 9 Volt  
EMERGENCY HOTLINE: 800-424-9300 (24 hr, Chemtrec)  
EDITION DATE: 01/25/2015

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## 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

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS #	%	TLV**/**TWA
Stainless Steel	---	40-50	---
Manganese Dioxide	1313-13-9	35-40	C5.0 as fume
1,3 Dioxolane	646-06-0	5-9	None Established
Lithium Hexafluoroarsenate (LiAsF <sub>6</sub> )	29935-35-1	1-4	No Data Available
Lithium (metal)	7439-93-2	1-4	None Established
Propylene Carbonate	108-32-7	8-10	None Established

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

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## 4. FIRST AID INFORMATION

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: NA

EFFECTS OF OVEREXPOSURE: None (see section 2 and 4 for fire or rupture situations)

EMERGENCY FIRST AID PROCEDURES:

### Skin and Eyes:

In the event that a battery ruptures, flush exposed skin with lukewarm water for a minimum of 15 minutes; wash skin with soap and water. Get immediate medical attention when eyes may have been exposed to battery contents from a ruptured battery. Lithium reacts with moisture; do not pick up a damaged or hot battery without proper hand protection, it may cause burns.

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## 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

**Consumers** (small number of batteries) use water to extinguish combustible materials and cool any batteries involved. Flood any combustible materials ejected from the fire with water.

**Bulk shipments** (large number of bulk of packaged batteries in a fire) use foam or Lithex™ to smother and cool the fire. Caution: once the suppressant is removed the batteries may re-ignite if exposed to moist air under normal ambient conditions.

**Industrial** situations place battery materials into Lithex™ to suppress fire potential and allow to slowly discharge to prevent fires. Keep away from combustible materials.

**SPECIAL FIRE FIGHTING PROCEDURES:** As with any fire, wear self-contained breathing apparatus and protective clothing to avoid contact or inhalation of hazardous decomposition products (See section 2). Significant amount of batteries involved in a fire may release flammable vapors intensifying the fire or creating flashback situations. If a battery is damaged and overheats, place in a safe non-combustible surface until cool, then containerize in a non-combustible container.

**SPECIAL FIRE OR EXPLOSION HAZARDS:** DO NOT RECHARGE. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of reactive, flammable or corrosive materials. Lithium metal could be ejected from the fire. 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.***

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## 6. ACCIDENTAL RELEASE MEASURES

**TO CONTAIN AND CLEAN UP LEAKS OR SPILLS:** In the event of a battery rupture, prevent skin contact. Allow any hot material to cool before containerizing. Open lithium will react with moisture- prevent introducing water or moisture to open battery contents (see fire section for batteries involved in a fire). Collect all cool battery material in a sealed plastic lined metal container. Spilled undamaged batteries require no special safety handling. Avoid short circuits.

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

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## 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. Do not mix new and old batteries in the same device at the same time as this could cause overheating or rupture.

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## 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

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## 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:	Geometric solid object

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## 10. STABILITY AND REACTIVITY

STABLE OR UNSTABLE: Stable  
INCOMPATIBILITY (MATERIALS TO AVOID): NA  
HAZARDOUS DECOMPOSITION PRODUCTS: None under normal use  
REACTIVITY: None; exposed lithium could react with moisture  
HAZARDOUS POLYMERIZATION: Will Not Occur  
CONDITIONS TO AVOID: Avoid electrical shorting, puncturing or deforming

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## 11. TOXICOLOGICAL INFORMATION

INGREDIENT NAME	CAS #	%	TWA/TLV
Stainless Steel	---	40-50	---
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1,3 Dioxolane	646-06-0	5-9	None Established
Lithium Hexafluoroarsenate (LiAsF <sub>6</sub> )	29935-35-1	1-4	No Data Available
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## 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.

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## 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>

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## 14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: These are lithium batteries, also known as primary or non-rechargeable lithium. These Lithium 9V batteries are regulated as Class 9, see UN3090. Our Lithium 9V 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.

USDOT – See 49 CFR 173.185 and Special Provision 188. Also note: these batteries 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 Lithium 9V cells can be shipped by air in accordance with International Air Transport Association (IATA) 56<sup>th</sup> edition, Section 1B, since these batteries have more than 0.3 g but less than 1 g of Lithium per battery. See Packing Instructions: PI 968 (Batteries), PI 969 (Batteries, packed with equipment) and PI 970 (Batteries, contained in equipment) as applicable. Also see Special Provision A201 for carrying these batteries on airplanes.

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## 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.

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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.