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MATERIAL SAFETY DATA SHEET

1. 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, or to the Canadian WHMIS requirements and the sheets are supplied as a service to you. For other MSDSs and related information, visit: http://www.rayovac.com/technical/msds.htm

1. IDENTIFICATION

PRODUCT NAME: 9-Volt Lithium Battery

SIZES: 9 Volt

EMERGENCY TELEPHONE NUMBER: 800-424-9300 (24 hr, Chemtrec)

Environmental Health & Safety Information: 608-275-2482 or call 1-800-332-5000

EDITION DATE: 07-19-2010 APPROVED BY: Kevin J. Domack

2. INGREDIENTS

INGREDIENT NAME	CAS #	%	TLV*
Stainless Steel	--	40-50	--
Manganese Dioxide	1313-13-9	35-40	5.0 (Mn Ceiling)
1,3 Dioxolane	646-06-0	5-9	None Established
Lithium Hexafluoroarsenate (LiAsF6)	29935-35-1	1-4	10ug/M3**
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 03-01-2010 **1910.1018 App. A-2010*

3. 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

4. FIRE & EXPLOSION HAZARD DATA

FLASH POINT:	NA	LOWER (LEL):	NA
FLAMMABLE LIMITS IN AIR (%):	NA	UPPER (UEL):	NA

EXTINGUISHING MEDIA: Use water, foam or dry powder, as appropriate. Do not use Halon

AUTO-IGNITION: NA

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 EXPLOSION HAZARDS: 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. Use cold water if water is used as an extinguishing medium. Lithium metal could be ejected from the fire.

5. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: NA

EFFECTS OF OVEREXPOSURE: None. (In fire or rupture situation see section 2 and section 4)

EMERGENCY FIRST AID PROCEDURES:
Skin and Eyes:
In the event that battery ruptures, flush exposed skin with copious quantities of flowing lukewarm water for a minimum of 15 minutes. Get immediate medical attention for eyes. Wash skin with soap and water.

LITHIUM metal contact-remove lithium particles from skin or eyes and flush with copious amounts of water May cause burns-seek medical attention immediately.

For more information, visit: http://www.nema.org/gov/ehs/committees/drybat/.

6. REACTIVITY DATA

STABLE OR UNSTABLE:	Stable
INCOMPATIBILITY (MATERIALS TO AVOID):	NA
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal use
REACTIVITY:	None normally-lithium from severely damaged batteries could react with water or moisture.
HAZARDOUS POLYMERIZATION:	Will Not Occur
CONDITIONS TO AVOID:	Avoid electrical shorting-DO NOT recharge.

7. SPILL OR LEAK PROCEDURES

PROCEDURES 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.

WASTE DISPOSAL METHOD: Comply with all Federal, state and local regulations. For a list of some waste Lithium battery treatment facilities, visit: http://www.nema.org/gov/ehs/committees/drybat/.

8. PROTECTION INFORMATION

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. SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Store in a dry place. Storing unpackaged cells together could result in cell shorting and heat build-up. Do not recharge. Do not puncture or abuse. Do not use new and old batteries in the same device at the same time as this could cause cell reversal resulting in overheating or rupture.

TRANSPORTATION-SHIPPING: These are lithium metal batteries and cells, also known as primary or non-rechargeable lithium. These batteries, unless exempted, are regulated as Class 9, UN3090. Our batteries meet the requirements listed in the provisions and when in our original packaging meet the packing instructions noted below and may be classified as non-dangerous goods for transportation.
USDOT – See Special provision 188.
IMDG/Ocean – See Special provision 188.
ICAO/Air – See packing instruction 968. (Note for lithium metal batteries packed with equipment use packing instruction 969 instead and for lithium metal batteries packed in equipment use packing instruction 970.) Cannot be shipped on passenger aircraft.
For further details to your shipping situation, please visit: http://www.nema.org/gov/ehs/committees/drybat/.

10. 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 processing or use.

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