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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: Silver Oxide Battery (Mercury Free)
SIZES: All 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
Silver Oxide	20667-12-3	5-35	.01 mg/m3 (TWA)
Steel	7439-89-6	37-41	---
Zinc	7440-66-6	30-40	5.0 mg/m3 (ZnO as Fume)
Potassium Hydroxide	1310-58-3	1-3	Solution Not Listed
Graphite	7782-42-5	<0.25	15 mppcf (TWA)
Manganese Dioxide	1313-13-9	<2.5	C5.0 mg/m^3 (Mn, TWA)
Water, paper, plastic, other	---	Balance	---

**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 (see section 2 and 4 for fire or rupture situations)

EMERGENCY FIRST AID PROCEDURES:

Skin and Eyes:

In the event that battery ruptures, flush exposed skin with flowing lukewarm water for a minimum of 15 minutes. Get immediate medical attention for eyes. Wash skin with soap and water.

Swallowing:

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 water, foam, or dry powder 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).

SPECIAL FIRE OR EXPLOSION HAZARDS: Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of corrosive materials.

6. ACCIDENTAL RELEASE MEASURES

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.

7. HANDLING AND STORAGE

Store batteries 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.

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:	Geometric solid object

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 #	%	TLV*/**TWA
Silver Oxide	20667-12-3	5-35	.01 mg/m3 (TWA)
Steel	7439-89-6	37-41	---
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**Source: OSHA 29 CFR 1910.1000 Table Z-1, 2 or 3 11-01-2012*

12. Ecological Information

Silver oxide button/coin cells may release small amounts of silver or mercury to the environment if damaged, abused or disposed of improperly. Children, elderly and pets may swallow the batteries if stored improperly or disposed of improperly. Store discharged batteries out of the reach of children and pets. Do not store near adult medications of similar size and shape. Provide the discharged batteries to an approved collection site for recycling. Do not place in fire. 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. For additional information on disposal/reclaim options, visit:
http://www.nema.org/Policy/Environmental-Stewardship/Documents/Companies%20Claiming%20to%20Recycle.MARCH2005.pdf

14. Transportation Information

TRANSPORTATION-SHIPPING: These are considered dry-cell batteries and they are non-dangerous goods for transportation. These batteries must be packed in a way to prevent short circuits or generation of a dangerous quantity of heat.
USDOT – See Special Provision 130.
IMDG/Ocean – Not Listed.
ICAO/IATA – See Special Provision A123. This special provision also states to put the words “not restricted” and “special provision A123” on the air waybill when an air waybill is issued.

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.