

RAYOVAC[®]

SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Alkaline Battery Mercury Free
SIZES: All sizes

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
Manganese Dioxide	1313-13-9	32-38	C5.0 mg/m ³
Steel	7439-89-6	19-23	---
Zinc	7440-66-6	11-16	5 mg/m ³ (as ZnO Fume)
Potassium Hydroxide	1310-58-3	5-9	Solution Not Listed
Graphite	7782-42-5	3-5	15 mppcf
Barium Sulfate	7727-43-7	<5	15 mg/m ³
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 in normal use
EMERGENCY FIRST AID PROCEDURES:

Skin and Eyes:

Do not pick up a shorting battery as it may cause a burn. Get immediate medical attention when eyes may have been exposed to battery contents from a ruptured battery. Wash skin with soap and water.

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: DO NOT RECHARGE. As a typical sealed battery they may rupture when exposed to excessive heat; this could result in the release of flammable or 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 with other combustible materials 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
Manganese Dioxide	1313-13-9	32-38	C5.0 mg/m ³
Steel	7439-89-6	19-23	---
Zinc	7440-66-6	11-16	5 mg/m ³ (as ZnO Fume)
Potassium Hydroxide	1310-58-3	5-9	Solution Not Listed
Graphite	7782-42-5	3-5	15 mppcf
Barium Sulfate	7727-43-7	<5	15 mg/m ³
Water, paper, plastic, other	---	Balance	---

*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. All Rayovac Alkaline batteries have been tested per Federal hazardous waste testing requirements (TCLP). The TCLP tests show Rayovac alkaline batteries are not hazardous waste.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: Alkaline Batteries 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.

IMO/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.

16. OTHER INFORMATION

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.

RAYOVAC[®]

SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Lithium 9 Volt Battery
SIZES: 9 Volt

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
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 ₆)	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

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.

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.***

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.

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.

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:	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

11. TOXICOLOGICAL INFORMATION

INGREDIENT NAME	CAS #	%	TWA/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 (LiAsF ₆)	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*

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.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: These are Lithium Metal 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. Also note: these batteries are forbidden on passenger aircraft 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) 57th edition, Packing Instruction 968, Section 1B. 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.

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.

16. OTHER INFORMATION

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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Lithium Carbon Monofluoride Battery BR
SIZES: Consumer AA, D and Button sizes

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/m ³ as dust*
Steel (as metal) and plastic	--	21-44	None Established
Carbon Monofluoride	51311-17-2	18-35	3.5 mg/m ³ as carbon
Carbon Black	1333-86-4	1-3	3.5 mg/m ³ (TWA respirable**)
Nickel as (metal)	7440-02-0	0.3-2	1.0 mg/m ³ **
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
Polyvinilidene Fluoride	24937-79-9	0.5-2	2.5 mg/m ³ 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.

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/m ³ as dust
Steel (as metal) and plastic	--	21-44	None Established
Carbon Monofluoride	51311-17-2	18-35	3.5 mg/m ³ as carbon
Carbon Black	1333-86-4	1-3	3.5 mg/m ³ (TWA respirable)
Nickel as (metal)	7440-02-0	0.3-2	1.0 mg/m ³
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.

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.

USDOT – See 49 CFR 173.185. Also note: these cells are forbidden on passenger aircraft 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) 57th edition, Packing Instruction 968. These cells have less than 0.3 g of Lithium per cell and may qualify for Section II (Cargo Aircraft only. Not More than one package per

consignee per day. Max carton weight 2.5 kg). Also See Packing Instructions: 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. The AA batteries are considered Medium Lithium Batteries while the D batteries are fully regulated Large Lithium Batteries. Also note: these batteries are forbidden on passenger aircraft and must be labeled accordingly even for ground or ocean transport.

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

ICAO/IATA – These Rayovac BR batteries can be shipped by air in accordance with International Air Transport Association (IATA) 57th edition, Packing Instruction 968, Section 1A as fully regulated. See Packing Instructions: 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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Lithium Ion Battery
SIZES: All rechargeable sizes

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
Lithium Cobalt Nickel Dioxide	12031-55-1; 12031-65-1	<25	None Established
Steel	---	15-30	None Established
Lithiated Manganese Dioxide	12057-17-9	<25	5.0 mg/m ³ (Mn)
Graphite	7782-42-5	3-5	15 mppcf
Copper	7440-50-8	5-15	0.1 mg/m ³ (Fume)
Nickel	7440-02-0	2-5	1.0 mg/m ³ (elemental)
Aluminum	7429-90-5	2-8	15 mg/m ³ (Dust)
Lithium Hexafluorophosphate	21324-40-3	1-5	None Established
Ethylene Carbonate	96-49-1	<15	None Established
Methyl Ethyl Carbonate	623-53-0	<15	None Established
Dimethyl Carbonate	616-38-6	<15	None Established

Diethyl Carbonate	105-58-8	<15	None Established
Methyl Acetate	79-20-9	<15	200 ppm
Plastic-ceramic	---	<20	None Established

*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:

In the event that battery ruptures, flush exposed skin with flowing lukewarm water for a minimum of 15 minutes. Get immediate medical attention when eyes may have been exposed to battery contents from a ruptured battery

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:	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
Lithium Cobalt Nickel Dioxide	12031-55-1; 12031-65-1	<25	None Established
Steel	---	15-30	None Established
Lithiated Manganese Dioxide	12057-17-9	<25	5.0 mg/m3 (Mn)
Graphite	7782-42-5	3-5	15 mppcf
Copper	7440-50-8	5-15	0.1 mg/m3 (Fume)
Nickel	7440-02-0	2-5	1.0 mg/m3 (elemental)
Aluminum	7429-90-5	2-8	15 mg/m3 (Dust)
Lithium Hexafluorophosphate	21324-40-3	1-5	None Established
Ethylene Carbonate	96-49-1	<15	None Established

Methyl Ethyl Carbonate	623-53-0	<15	None Established
Dimethyl Carbonate	616-38-6	<15	None Established
Diethyl Carbonate	105-58-8	<15	None Established
Methyl Acetate	79-20-9	<15	200 ppm
Plastic-ceramic	---	<20	None Established

**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.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: These are Lithium Ion (Li-ion) batteries, also known as secondary or rechargeable lithium. These Li-ion, unless exempted, are regulated as Class 9, see UN3480. Our Li-ion meet the general regulatory requirements for shipping Li-ion 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.

IMO/Ocean – See Special Provisions 188 and 230.

ICAO/IATA – These Rayovac Li-ion batteries can be shipped by air in accordance with International Air Transport Association (IATA) 57th edition. These Li-ion batteries are under 20WH and can ship as Section II or 1B pending count or gross weight limitations per package. See Packing Instructions: PI 965 (Batteries), PI 966 (Batteries, packed with equipment) and PI 967 (Batteries, contained in equipment) as applicable. Note Li-ion must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity.

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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Lithium Iron Disulfide Battery FR
SIZES: AAA, AA and D sizes (GP Type)

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
Iron Disulfide	12068-85-8	30-40	None Established
Steel as Metal	---	35-45	None Established
Carbon Black	1333-86-4	1-3	3.5 mg/m ³ TWA
Graphite	7782-42-5	1-3	2.0 mg/m ³ (TWA respirable)
Lithium Bis(trifluoromethane)Sulfonamide	90076-65-6	<1	None Established
Lithium Iodide	10377-51-2	0.5-2	None Established
Dimethoxyethane (1,2)	110-71-4	2-4	None Established
Lithium	7439-93-2	1-3	None Established
1,3 Dioxolane	646-06-0	5-9	None Established

*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:

In the event that battery ruptures, flush exposed skin with flowing lukewarm water for a minimum of 15 minutes. 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.

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. Batteries in fire may produce sulfur dioxide gas or lithium hydroxide fumes. 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 solid product – AAA, 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 #	%	TLV*/**TWA
Iron Disulfide	12068-85-8	30-40	None Established
Steel as Metal	---	35-45	None Established
Carbon Black	1333-86-4	1-3	3.5 mg/m3 TWA
Graphite	7782-42-5	1-3	2.0 mg/m3 (TWA respirable)
Lithium Bis(trifluoromethane)Sulfonamide	90076-65-6	<1	None Established
Lithium Iodide	10377-51-2	0.5-2	None Established
Dimethoxyethane (1,2)	110-71-4	2-4	None Established
Lithium	7439-93-2	1-3	None Established
1,3 Dioxolane	646-06-0	5-9	None Established

*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.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: These are lithium metal batteries, also known as primary or non-rechargeable lithium. These Lithium Iron Disulfide (Li/FeS₂) batteries are regulated as Class 9, see UN3090. Our Li/FeS₂ 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. Also note: these cells are forbidden on passenger aircraft and must be labeled accordingly even for ground or ocean transport.

IMO/Ocean – See Special Provisions 188 and 230.

ICAO/IATA – These Rayovac Li/FeS₂ batteries can be shipped by air in accordance with International Air Transport Association (IATA) 57th edition, PI 968, Section 1B, as these batteries have more than 0.3 g but less than 1 g of Lithium per battery. Also See Packing Instructions: 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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Lithium Manganese Dioxide Battery CR
SIZES: All sizes

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
Manganese Dioxide	1313-13-9	30-40	C5.0 (Mn, TWA)
Steel as metal	---	40-50	None Established
Dimethoxyether	110-71-4	4-8	None Established
Graphite	7782-42-5	1-3	15 mppcf
Teflon		1-2	None Established
Propylene Carbonate	108-32-7	2-6	None Established
Dimethoxyethane (1,2)	110-71-4	7-11	None Established
Lithium	7439-93-2	1-4	None Established
Lithium Trifluoromethane Sulfonate	33454-82-9	<1.5	None Established

*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.

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 - Coin, 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 #	%	TLV*/**TWA
Manganese Dioxide	1313-13-9	30-40	C5.0 (Mn, TWA)
Steel as metal	---	40-50	None Established
Dimethoxyether	110-71-4	4-8	None Established
Graphite	7782-42-5	1-3	15 mppcf
Teflon		1-2	None Established
Propylene Carbonate	108-32-7	2-6	None Established
Dimethoxyethane (1,2)	110-71-4	7-11	None Established
Lithium	7439-93-2	1-4	None Established
Lithium Trifluoromethane Sulfonate	33454-82-9	<1.5	None Established

**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.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: These are lithium metal coin cells, also known as primary or non-rechargeable lithium. These CR and KECR cells, unless exempted, are regulated as Class 9, see UN3090. Our CR and KECR 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. Also note: these cells are forbidden on passenger aircraft and must be labeled accordingly even for ground or ocean transport.

IMO/Ocean – See Special Provisions 188 and 230.

ICAO/IATA – The Rayovac cells designated with “CR” & “KECR” can be shipped by air in accordance with International Air Transport Association (IATA) 57th edition, Packing Instruction 968. These cells have less than 0.3 g of Lithium per cell and may qualify for section II (Cargo Aircraft only. Not more than one package per consignee per day. Max carton weight 2.5 kg). Also see Packing Instructions: PI 969 (Batteries, packed with equipment) and PI 970 (Batteries, contained in equipment) as applicable.

Our batteries designated with “RL” and “RLCR” have lithium amounts that fall within the Section 1B requirements and those cartons require additional labeling and documentation. See Packing Instructions: PI 968 (Batteries), PI 969 (Batteries, packed with equipment) and PI 970 (Batteries, contained in equipment) as applicable for detailed shipping instructions.

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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Manganese Dioxide Battery Mercury and Lead Free
SIZES: All coin/button sizes

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**/TTWA
Manganese Dioxide	1313-13-9	30-40	C5.0 (Mn, TWA)
Zinc	7440-66-6	10-15	5 mg/m ³ (as ZnO Fume)
Sodium Hydroxide and Potassium Hydroxide, 30-35% mixture	1310-73-2, 1310-58-3	10-15	Solution Not Listed
Metal shell, plastic, other	---	30-40	None Established

*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: C5.0 (Mn, TWA)

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.

5. FIRE FIGHTING MEASURES

FLASH POINT: NA

LOWER (LEL): NA

FLAMMABLE LIMITS IN AIR (%): NA

UPPER (UEL): NA

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical or Foam Extinguisher.

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:	NA

10. STABILITY AND REACTIVITY

STABLE OR UNSTABLE: Stable
INCOMPATIBILITY (MATERIALS TO AVOID): NA
HAZARDOUS DECOMPOSITION PRODUCTS: When heated, battery may emit hazardous vapor of KOH/NaOH.
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
Manganese Dioxide	1313-13-9	30-40	C5.0 (Mn, TWA)
Zinc	7440-66-6	10-15	5 mg/m ³ (as ZnO Fume)
Sodium Hydroxide and Potassium Hydroxide, 30-35% mixture	1310-73-2, 1310-58-3	10-15	Solution Not Listed
Metal shell, plastic, other	---	30-40	None Established

*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.

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.

IMO/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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Nickel Metal Hydride Battery
SIZES: All sizes

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
Nickel and compounds	7440-02-0	30-40	1.0 mg/m ³ (Soluble Compounds, TWA)
Steel	---	15-25	---
Potassium Hydroxide	1310-58-3	10-15	Solution Not Listed
Cobalt and compounds	7440-48-4	4-8	0.1 mg/m ³ (TWA)
Manganese	7439-96-5	<2	0.5 mg/m ³ (TWA)
Aluminum	7429-90-5	<1	15 mg/m ³ (Total Dust,TWA)
Lanthanides, Zinc	7440-66-6 (Zn)	5-20	5 mg/m ³ (ZnO as Fume)
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.

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
Nickel and compounds	7440-02-0	30-40	1.0 mg/m ³ (Soluble Compounds, TWA)
Steel	---	15-25	---
Potassium Hydroxide	1310-58-3	10-15	Solution Not Listed
Cobalt and compounds	7440-48-4	4-8	0.1 mg/m ³ (TWA)
Manganese	7439-96-5	<2	5.0 mg/m ³ (TWA)
Aluminum	7429-90-5	<1	15 mg/m ³ (Total Dust, TWA)
Lanthanides, Zinc	7440-66-6 (Zn)	5-20	5 mg/m ³ (ZnO as Fume)
Water, paper, plastic, other	---	Balance	---

12. ECOLOGICAL INFORMATION

Under normal use these batteries do not release their ingredients into the environment. Damaged or abused batteries can release extremely small amounts of nickel or cobalt to the environment.

Damaged batteries carelessly discarded could release small amounts of nickel or cobalt to storm or surface water. 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

Waste Nickel Metal Hydride Batteries are NOT considered a USEPA Hazardous Waste. Their collection and recycling are not required under US Federal Law but is recommended. Always comply with Federal, state or local requirements.

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

IMO/Ocean – UN3496, Special Provision 963

ICAO/IATA – See Special Provisions A123 and A199. A123 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.



REACH Declaration (February 3, 2016)

The Rayovac North America division of Spectrum Brands, Inc. (“Rayovac”) has received requests concerning the European REACH Directive 1907/2006. Below is Rayovac’s position regarding REACH.

The Rayovac North America division of Spectrum Brands, Inc. does not have any obligations under REACH and is not subject to the jurisdiction of REACH. REACH only applies to companies that manufacture batteries in Europe or import batteries into Europe. The Rayovac North America division of Spectrum Brands, Inc. does not manufacture batteries in Europe or import batteries into Europe. All batteries sold by the Rayovac North America division originate in the United States (i.e. all batteries were either manufactured in the United States or were imported into the United States). Therefore, REACH does not apply to the Rayovac North America division of Spectrum, Brands, Inc.

To assist Rayovac customers who must comply with REACH, Rayovac has conducted an analysis on the Rayovac batteries listed below.

Alkaline batteries
Heavy Duty batteries
Zinc-Air batteries
Lithium batteries
Rechargeable batteries and battery packs
Specialty batteries for watches, electronic, fencing

To date, the batteries listed above **DO NOT** contain any of the 168 substances on the Candidate List of Substances of Very High Concern (SVHC). The batteries listed below contain one or more of the 168 SVHC’s on the Candidate List. More information can be found on the corresponding safety data sheet (SDS).

Battery	SVHC	Concentration	Annual Metric Tons
CR, BR & FB Lithium Carbon-Monofluoride cells (CR2032, BR2032, BR2335, BR1225, BR1632, FB2032H2, and FB1225H2)	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) (CAS # 110-71-4)	> 0.1%	< 1,000kg

Furthermore, **NONE** of the above Rayovac batteries or the substances therein, need to be registered under REACH Article 7(1). Article 7(1) requires registration of any substance(s) contained within an “article”¹ if the “article” is intended to release the substance(s) under normal and reasonably foreseeable conditions of use. However, under normal and reasonably foreseeable conditions of use, the above

¹ The ECHA has explicitly stated that batteries are “articles” under REACH Article 3(3).



Rayovac batteries are not intended to release any substances. Therefore, the requirement in REACH Article 7(1) for registration of substances does not apply.

It should be noted that the information contained herein is not legal advice and should not be relied on as such. This letter merely provides information about the contents and properties of Rayovac batteries. Rayovac encourages companies that import Rayovac batteries into Europe to seek their own legal advice with respect to compliance with REACH.

If any of the above information changes your company will be promptly notified and will be provided an updated REACH Declaration document.



August 11, 2014

This document addresses why batteries are not subject to the RoHS and WEEE Directives that were passed in the European Union. Rayovac receives many compliance certification requests from customers and this document was created to address those requests.

RoHS

Batteries are not regulated under the EU RoHS Directive 2011/65/EC, as stated in recital 14 below. Specifically, recital 14 says that the 2006 Batteries Directive shall be applied without prejudice to other Directives in EU.

(14) This Directive should apply without prejudice to Union legislation on safety and health requirements and specific Union waste management legislation, in particular Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and Regulation (EC) No 850/2004.

WEEE Directive

All batteries collected based on the WEEE Directive will be subsequently removed from electronic equipment (Annex II). These removed batteries are then subject to the 2006 Batteries Directive and the Technical Adaptation Directive from 1998. As such, batteries are not included under the WEEE Directive.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Sealed Lead Acid Battery
SIZES: All sizes

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
Lead and compounds	7439-92-1	~70	50 ug/m ³ (TWA)
Sulfuric Acid (water solution)	7664-93-9	~20	1 mg/m ³ (TWA)
Plastic, paper, water, other	---	Balance	

**Source: OSHA 29 CFR 1910.1000 App A. OSHA 29 CFR 1910.1000 Table Z-1 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.

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
Lead and compounds	7439-92-1	~70	50 ug/m ³ (TWA)
Sulfuric Acid (water solution)	7664-93-9	~20	1 mg/m ³ (TWA)
Plastic, paper, water, other	---	Balance	

*Source: OSHA 29 CFR 1910.1000 App A. OSHA 29 CFR 1910.1000 Table Z-1 11-01-2012

12. ECOLOGICAL INFORMATION

Under normal use these batteries do not release their ingredients into the environment. If the batteries are abused or discarded they may be damaged and release small amounts of lead or sulfuric acid into the environment. 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

Waste lead acid batteries are considered a USEPA Hazardous Waste (D002 and D008), unless they are intact and are being reclaimed (40 CFR 266, subpart G). Their recapture and recycling are mandated under US Federal Law.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: These are classified as “Batteries – Wet, Non-Spillable, Electric Storage, UN2800.” 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 49 CFR 173, 159(a).

IMDG/Ocean – see Special Provision 238.1 and 238.2.

ICAO/IATA – See Special Provision A67. For any mode of transportation, the battery and the outer carton must be labeled: “Non-Spillable” or “Non-Spillable Battery”.

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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Silver Oxide Battery
SIZES: All sizes

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	<0.5	.01 mg/m ³ (TWA)
Steel	7439-89-6	37-41	---
Zinc	7440-66-6	30-40	5.0 mg/m ³ (ZnO as Fume)
Potassium Hydroxide	1310-58-3	1-3	Solution Not Listed
Graphite	7782-42-5	<0.25	15 mppcf (TWA)
Mercury	7439-97-6	<0.9**	1 mg/10 m ³ (Ceiling)
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

** All Silver Oxide cells contain less than 25 mg/cell of mercury

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.

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	<0.5	.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)
Mercury	7439-97-6	<0.9**	1 mg/10 m3 (Ceiling)
Manganese Dioxide	1313-13-9	<2.5	C5.0 mg/ m3 (Mn, TWA)
Water, paper, plastic, other	---	Balance	---

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

*** All Silver Oxide cells contain less than 25 mg/cell of mercury*

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.

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.

IMO/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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Silver Oxide Battery Mercury Free
SIZES: All sizes

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/m ³ (TWA)
Steel	7439-89-6	37-41	---
Zinc	7440-66-6	30-40	5.0 mg/m ³ (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.

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	---
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

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.

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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Valve Regulated Lead Acid VRLA Battery
SIZES: 6 Volt (CP650S)

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
Lead and compounds	7439-92-1	>70	50 ug/m ³ (TWA)
Sulfuric Acid (water solution)	7664-93-9	10-20	1 mg/m ³ (TWA)
Plastic, water, steel	---	Balance	---

**Source: OSHA 29 CFR 1910.1025 App A., OSHA 29 CFR 1910.1200 Table Z 1-3 11-01-2012*

4. FIRST AID INFORMATION

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: NA

EFFECTS OF OVEREXPOSURE: None (see section 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.

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. When charging batteries, be sure to keep sparks and other sources of ignition away from battery.

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. Do not accumulate in a sealed container. Do not put in a container with combustible materials.

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	Solubility in Water (% by Weight):	NA
Density (grams/cc):	NA	pH:	NA
Physical State:	Solid assembled components		
Appearance and Odor:	Geometric solid shape (plastic casing) with spring terminals – no odor		

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, short circuit current of 250A, puncturing or deforming

11. TOXICOLOGICAL INFORMATION

INGREDIENT NAME	CAS #	%	TLV**/***TWA
Lead and compounds	7439-92-1	>70	50 ug/m ³ (TWA)
Sulfuric Acid (water solution)	7664-93-9	10-20	1 mg/m ³ (TWA)
Plastic, water, steel	---	Balance	---

*Source: OSHA 29 CFR 1910.1025 App A., OSHA 29 CFR 1910.1200 Table Z 1-3 11-01-2012

12. ECOLOGICAL INFORMATION

Under normal use these batteries do not release their ingredients into the environment. If the batteries are abused or discarded they may be damaged and release small amounts of lead or sulfuric acid into the environment. 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

Waste lead acid batteries are considered a USEPA Hazardous Waste (D002 and D008), unless they are intact and are being reclaimed (40 CFR 266.266.80). Always comply with Federal, state or local requirements.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: These are classified as “Batteries – Wet, Non-Spillable, Electric Storage, UN2800.” 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 49 CFR 173, 159(a).

IMDG/Ocean – see Special Provision 238.1 and 238.2.

ICAO/IATA – See Special Provision A67. For any mode of transportation, the battery and the outer carton must be labeled: “Non-Spillable” or “Non-Spillable Battery”.

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.

Proposition 65: Notification in the state of California under Proposition 65 may be required.

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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Zinc Air Battery
SIZES: All button sizes

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
Zinc	7440-66-6	30-40	5.0 mg/m ³ (ZnO as Fume)
Steel	7439-89-6	30-40	---
Nickel	7440-02-0	3-7	1.0 mg/m ³ (Elemental, TWA)
Copper	7440-50-8	1-5	1 mg/m ³ (TWA)
Chromium	7440-47-3	1-5	0.5 ug/m ³ (Metal, TWA)
Graphite	7782-42-5	1-3	15 mppcf (TWA)
Potassium Hydroxide	1310-58-3	1-3	Solution Not Listed
Mercury	7439-97-6	<1**	1 mg/10m ³ Ceiling
Water, paper, plastic, other	---	Balance	---

*Source: OSHA 29 CFR 1910.1000 Table Z-1, OSHA 29 CFR 1910.1026 App A 11-01-2012

** These Zinc Air Batteries contain less than 25 mg/cell of Mercury

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.

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 with several holes in the positive (+) end		

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
Zinc	7440-66-6	30-40	5.0 mg/m ³ (ZnO as Fume)
Steel	7439-89-6	30-40	---
Nickel	7440-02-0	3-7	1.0 mg/m ³ (Elemental, TWA)
Copper	7440-50-8	1-5	1 mg/m ³ (TWA)
Chromium	7440-47-3	1-5	0.5 ug/m ³ (Metal, TWA)
Graphite	7782-42-5	1-3	15 mppcf (TWA)
Potassium Hydroxide	1310-58-3	1-3	Solution Not Listed
Mercury	7439-97-6	<1**	1 mg/10mg ³ Ceiling

Water, paper, plastic, other	---	Balance	---
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*Source: OSHA 29 CFR 1910.1000 Table Z-1, OSHA 29 CFR 1910.1026 App A 11-01-2012

** These Zinc Air Batteries contain less than 25 mg/cell of Mercury

12. ECOLOGICAL INFORMATION

Zinc air batteries can release small amounts of zinc oxide and mercury to the environment if abused and disposed of improperly. Small amounts of zinc could enter the storm water and affect gill breathing animals if a large quantity of damaged batteries were released. Mercury is bio-accumulative. Small button cells can be swallowed. At higher risk are children, elderly or pets. Do not place in fire. Dispose of properly when discharged. Use a recycling outlet if available. 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.

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.

1. IDENTIFICATION

PRODUCT NAME: Zinc Air Battery Mercury Free
SIZES: All sizes

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
Zinc	7440-66-6	30-40	5.0 mg/m ³ (ZnO as Fume)
Steel	7439-89-6	30-40	---
SS – Nickel plating	7440-02-0	3-7	1.0 mg/m ³ (Elemental, TWA)
SS – Copper plating	7440-50-8	1-5	1 mg/m ³ (TWA)
Carbon Black	1333-86-4	1-3	3.5 mg/m ³ Respirable (TWA)
Potassium Hydroxide solution	1310-58-3	1-3	Solution Not Listed
Lead	7439-92-1	0.015-0.02	0.05 mg/m ³ (TWA)
Water, paper, plastic, surfactant	NA	Balance	Not Listed

*Source: OSHA 29 CFR 1910.1000 Table Z-1 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.

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 with several holes in the positive (+) side		

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
Zinc	7440-66-6	30-40	5.0 mg/m ³ (ZnO as Fume)
Steel	7439-89-6	30-40	---
SS – Nickel plating	7440-02-0	3-7	1.0 mg/m ³ (Elemental, TWA)
SS – Copper plating	7440-50-8	1-5	1 mg/m ³ (TWA)
Carbon Black	1333-86-4	1-3	3.5 mg/m ³ Respirable (TWA)
Potassium Hydroxide solution	1310-58-3	1-3	Solution Not Listed
Lead	7439-92-1	0.015-0.02	0.05 mg/m ³ (TWA)
Water, paper, plastic, surfactant	NA	Balance	Not Listed

*Source: OSHA 29 CFR 1910.1000 Table Z-1 11-01-2012

12. ECOLOGICAL INFORMATION

Zinc air batteries can release small amounts of zinc oxide to the environment if abused and disposed of improperly. Small amounts of zinc could enter the storm water and affect gill breathing animals if a large quantity of damaged batteries were released. Small button cells can be swallowed. At higher risk are children, elderly or pets. Do not place in fire. Dispose of properly when discharged. Use a recycling outlet if available. 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. If you choose to retain discharged batteries and recycle be sure to store them out of the reach of children and pets. Do not store with adult medications of similar size or shape.

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.

16. OTHER INFORMATION

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.



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: Zinc Chloride Battery
SIZES: All sizes

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
Steel	7439-89-6	8-14	Not Listed
Manganese Dioxide	1313-13-9	28-32	C5.0 mg/m ³ (TWA)
Zinc	7440-66-6	16-20	5.0 mg/m ³ (ZnOas Fume)
Acetylene Black	1333-86-4	7-13	3.5 mg/m ³ (Carbon Black, TWA)
Ammonium Chloride	12125-02-9	1-3	Not Listed
Zinc Chloride	7646-85-7	6-10	Not Listed
Lead	7439-92-1	<0.02	50 ug/m ³ (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.

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
Steel	7439-89-6	8-14	Not Listed
Manganese Dioxide	1313-13-9	28-32	5.0 mg/m ³ (TWA)
Zinc	7440-66-6	16-20	5.0 mg/m ³ (ZnOas Fume)
Acetylene Black	1333-86-4	7-13	3.5 mg/m ³ (Carbon Black, TWA)
Ammonium Chloride	12125-02-9	1-3	Not Listed
Zinc Chloride	7646-85-7	6-10	Not Listed
Lead	7439-92-1	<0.02	50 ug/m ³ (TWA)
Water, paper, plastic, other	---	Balance	---

12. ECOLOGICAL INFORMATION

Under normal use these batteries do not release their ingredients into the environment. Damaged or abused batteries can release small amounts of zinc, and manganese. Damaged batteries carelessly discarded could release small amounts of zinc to storm or surface water. Do not place in fire. Dispose of properly when discharged. Use a recycling outlet if available. 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. If you choose to retain discharged batteries and recycle be sure to store them out of the reach of children and pets. Do not store with adult medications of similar size or shape.

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.

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