

# SAFETY DATA SHEET

Issuing Date 31-Dec-2015

Revision Date 31-Dec-2015

Revision Number 5



The supplier identified below generated this SDS using the UL SDS template. UL did not test, certify, or approve the substance described in this SDS, and all information in this SDS was provided by the supplier or was reproduced from publically available regulatory data sources. UL makes no representations or warranties regarding the completeness or accuracy of the information in this SDS and disclaims all liability in connection with the use of this information or the substance described in this SDS. The layout, appearance and format of this SDS is © 2014 UL LLC. All rights reserved.

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

Product Name PUR Replacement Filter Faucet RF9999

### Other means of identification

Synonyms None

### Recommended use of the chemical and restrictions on use

Recommended Use Filter

Uses advised against No information available

### Details of the supplier of the safety data sheet

Supplier Name Kaz USA, Inc.

Supplier Address One Vapor Trail  
Hudson  
NY  
12534  
US

Supplier Phone Number Phone:(479) 271-8078  
Contact Phone(479) 271-8078

Supplier Email kbender@kaz.com

### Emergency telephone number

## 2. HAZARDS IDENTIFICATION


### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2



**GHS Label elements, including precautionary statements****Emergency Overview**

<b>Signal word</b>	<b>Warning</b>		
<b>Hazard Statements</b> Harmful if inhaled Causes serious eye irritation			
			
<b>Appearance</b>	Solid	<b>Physical state</b>	Solid
		<b>Odor</b>	None

**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 Wear eye/face protection  
 Wash hands and face thoroughly after handling

**Precautionary Statements - Response****Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell

**Precautionary Statements - Storage**

None

**Precautionary Statements - Disposal**

None

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

7.1 % of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

No information available

**Interactions with Other Chemicals**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical name	CAS No	Weight-%	Trade Secret
Supplier Trade Secret	Trade Secret	7 - 13	*
Supplier Trade Secret	Trade Secret	5 - 10	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret

**4. FIRST AID MEASURES****First aid measures****General Advice**

Show this safety data sheet to the doctor in attendance.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.

**Skin contact**

Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen.

**Ingestion**

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Self-protection of the first aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**Most important symptoms and effects, both acute and delayed****Most Important Symptoms and Effects**

Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Dry chemical, soda ash, lime or sand. DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn. Move containers from fire area if you can do it without risk.

### Unsuitable extinguishing media

DO NOT USE WATER OR FOAM.

### Specific hazards arising from the chemical

Produce flammable gases on contact with water. May ignite on contact with water or moist air. Some react vigorously or explosively on contact with water. May be ignited by heat, sparks or flames. Some are transported in highly flammable liquid. Runoff may create fire or explosion hazard.

#### Uniform Fire Code

Irritant: Solid

### Hazardous Combustion Products

Carbon oxides.

### Explosion Data

**Sensitivity to Mechanical Impact** No.

**Sensitivity to Static Discharge** No.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

#### Personal precautions

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Stop leak if you can do it without risk. DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.

#### Other Information

DO NOT GET WATER on spilled substance or inside containers.

### Environmental precautions

#### Environmental precautions

Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.

### Methods and material for containment and cleaning up

#### Methods for containment

Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. Dike for later disposal; do not apply water unless directed to do so. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

#### Methods for cleaning up

Pick up and transfer to properly labeled containers.



## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** In case of rupture. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection equipment.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

**Incompatible Products** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Supplier Trade Secret	-	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 15 mg/m <sup>3</sup> (vacated) TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> respirable dust TWA: 10 mg/m <sup>3</sup> total dust
Supplier Trade Secret	TWA: 1 mg/m <sup>3</sup> respirable fraction	-	

*ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health*

**Other Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

### Individual protection measures, such as personal protective equipment

**Eye/face protection** None required for consumer use. If there is a risk of contact: Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Do not breathe dust.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

<b>Physical state</b> <b>Appearance</b> <b>Color</b>	Solid Solid No information available	<b>Odor</b> <b>Odor Threshold</b>	None No information available
--	--	--------------------------------------	----------------------------------

Property	Values	Remarks	Method
pH	No data available	None known	
Melting / freezing point	No data available	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	No data available	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Specific Gravity	No data available	None known	
Water Solubility	Insoluble in water	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
Explosive properties	No data available		
Oxidizing properties	No data available		

### Other Information

<b>Softening Point</b> <b>VOC Content (%)</b> <b>Particle Size</b> <b>Particle Size Distribution</b>	No data available No data available No data available
---	---

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Hazardous Polymerization

Hazardous polymerization does not occur.

### Conditions to avoid

Excessive heat.

### Incompatible materials

None known based on information supplied.

### Hazardous Decomposition Products

Carbon oxides.



## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Product Information</b>	Product does not present an acute toxicity hazard based on known or supplied information.
<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. May cause redness, itching, and pain. May cause temporary eye irritation.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### **Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Supplier Trade Secret	= 6450 mg/kg ( Rat )	-	-
Supplier Trade Secret	= 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 18.3 mg/L ( Rat ) 1 h

### Information on toxicological effects

**Symptoms** May cause redness and tearing of the eyes. Coughing and/ or wheezing.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	No information available.
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Chronic Toxicity</b>	No known effect based on information supplied. Carcinogenic potential is unknown.
<b>Target Organ Effects</b>	Eyes. Respiratory system. Central Vascular System (CVS). Skin.
<b>Aspiration Hazard</b>	No information available.

**Numerical measures of toxicity Product Information**

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)**

5,819.00 mg/kg

**ATEmix (inhalation-dust/mist)**

4.00 mg/l

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Supplier Trade Secret	96h EC50: = 18 mg/L (Desmodesmus subspicatus)	96h LC50: = 1800 mg/L (Brachydanio rerio) 96h LC50: 3200 - 5600 mg/L (Oryzias latipes) 96h LC50: 1800 - 3200 mg/L (Poecilia reticulata)	EC50 3200 - 5600 mg/L 8 h EC50 = 1550 mg/L 16 h	48h EC50: 1000 - 1800 mg/L

**Persistence and Degradability**

No information available.

**Bioaccumulation**

No information available

**Other adverse effects**

No information available.

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Dispose of contents/containers in accordance with local regulations.

**California Hazardous Waste Codes 141**

This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. TRANSPORT INFORMATION**



**Note:** The transportation of primary lithium cells and batteries is regulated by the International Civil Aviation Organization, International Air Transport Association, International Maritime Dangerous Goods Code and the US Department of Transportation. The batteries must meet the following criteria for shipment: 1. Air shipments must meet the requirements listed in Special Provision A45 of the International Air Transport Association Dangerous Goods Regulations. 2. Meet the requirements for the US Department of Transportation listed in 49 CFR 173.185. 3. The transport of primary lithium batteries is prohibited aboard passenger aircraft. Refer to the Federal Register December 15, 2004 (Hazardous Materials; Prohibited on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft; Final Rule) Lithium batteries shipped as "Lithium batteries", "Lithium batteries packed with equipment", or "Lithium batteries contained in equipment" may not be classified as "Dangerous Goods" when shipped in accordance with "special provision A45 of IATA-DGR" or "special provision 188 of IMO-IMDG Code"

**DOT**  
**Proper Shipping Name** NOT REGULATED  
**Hazard Class** NON REGULATED  
**Emergency Response Guide Number** N/A  
 138

**TDG** Not regulated

**MEX** Not regulated

**ICAO** Not regulated

**IATA**  
**Proper Shipping Name** Not regulated  
**Hazard Class** NON REGULATED  
 N/A

**IMDG/IMO**  
**Proper Shipping Name** Not regulated  
**Hazard Class** NON-REGULATED PER SP 188  
**EmS-No.** N/A  
 F-A, S-I

**RID** Not regulated

**ADR** Not regulated

**ADN** Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

TSCA Complies  
 DSL All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372



**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Supplier Trade Secret	X	X			

**International Regulations**

**Mexico**

**National occupational exposure limits**

Component	Carcinogen Status	Exposure Limits
Supplier Trade Secret (7 - 13)		Mexico: TWA 10 mg/m <sup>3</sup> Mexico: STEL 20 mg/m <sup>3</sup>

Mexico - Occupational Exposure Limits - Carcinogens

**Canada**

**WHMIS Hazard Class**

Not determined

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b> 1	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Physical and Chemical Hazards - Personal Protection</b> X
<b>HMIS</b>	<b>Health Hazards</b> 1	<b>Flammability</b> 0	<b>Physical Hazard</b> 0	

**Prepared By** Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

**Issuing Date** 31-Dec-2015



**Revision Date** 31-Dec-2015  
**Revision Note** No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**



## Product Safety Data Sheet (PSDS)

The battery products referenced in this PSDS document are consumer products. Batteries are considered "articles" under the Global Harmonized System and are exempted from the GHS labeling and SDS classification criteria. This PSDS document is provided as service in response to requests for information on battery use, safety and regulatory compliance.

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** DURACELL LITHIUM MANGANESE DIOXIDE COIN CELLS

**Product Identification:** Lithium Manganese Dioxide Coin Cells – (lithium metal battery)

**Duracell Designations:** DL1216; DL1616; DL1620; DL1632; DL2016; DL2025; DL2032; DL2430; DL2450

**Product Use:** Energy Source

**PSDS Date of Preparation:** April 24, 2009 **Reaffirmed:** 4/08/2011; **Updated:** December 11, 2014

**Document ID:** Lithium Coin-NA

#### Company Identification

US Office

Duracell, a P&G business  
Berkshire Corporate Park  
14 Research Drive  
Bethel, CT USA 06401  
(203) 796-4000

Canadian Office

Duracell, a P&G business  
4711 Yonge Street  
Toronto, Ontario  
Canada M2N 6K8  
(416) 730-4711

### SECTION 2: HAZARDS IDENTIFICATION

**Physical Appearance:** Coin cells.

#### EMERGENCY OVERVIEW

**CAUTION:** For information on treatment, call the NATIONAL BUTTON BATTERY INGESTION HOTLINE collect, day or night, at (202) 625-3333. Ingestion may lead to serious injury or death. Battery can explode or leak if heated, disassembled, shorted, recharged, exposed to fire or high temperature or inserted incorrectly. Keep in original package until ready to use. Do not carry batteries loose in your pocket or purse. Keep batteries away from children. If swallowed, consult a physician at once. Under certain misuse conditions and by abusively opening the battery, exposed lithium can react with water or moisture in the air causing potential thermal burns or fire.

#### Potential Health Effects:

The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused.

**Eye Contact:** Contact with battery contents may cause irritation.

**Skin Contact:** Contact with battery contents may cause irritation.

**Inhalation:** Inhalation of vapors or fumes released due to heat or a large number of leaking batteries may cause respiratory and eye irritation.

**Ingestion:** Seek immediate medical advice. Batteries lodged in the esophagus should be removed immediately since leakage, caustic burns and perforation can occur as soon as two hours after ingestion. Irritation to the internal/external mouth areas, may occur following exposure to a leaking battery.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Amount
Manganese Dioxide	1313-13-9	65-75%
Propylene Carbonate	108-32-7	10-15%
Lithium	7439-93-2	5-10%
Graphite, synthetic	7440-44-0	5-10%
1,2-Dimethoxyethane	110-71-4	1-10%
Lithium Perchlorate	7791-03-9	<1.5%

### SECTION 4: FIRST AID MEASURES

**Eye Contact:** If battery is leaking and material contacts the eye, flush thoroughly with copious amounts of running water for 30 minutes. Seek immediate medical attention.

**Skin Contact:** If battery is leaking and material contacts the skin, remove any contaminated clothing and flush exposed skin with copious amounts of running water for at least 15 minutes. If irritation, injury or pain persists, seek medical attention.

**Inhaled:** If battery is leaking, contents may be irritating to respiratory passages. Move to fresh air. If irritation persists, seek medical attention.

**Swallowed:** If battery is swallowed seek immediate medical advice. Batteries lodged in the esophagus should be removed immediately since leakage, caustic burns and perforation can occur as soon as two hours after ingestion. If mouth area irritation or burning has occurred, rinse the mouth and surrounding area with tepid water for at least 15 minutes. Do not give ipecac.

**Note to Physician:** Published reports recommend removal from the esophagus be done endoscopically (under direct visualization). Batteries beyond the esophagus need not be retrieved unless there are signs of injury to the GI tract or a large diameter battery fails to pass the pylorus. If asymptomatic, follow-up x-rays are necessary only to confirm the passage of larger batteries. Confirmation by stool inspection is preferable under most circumstances. For information on treatment, telephone (202) 625-3333, collect day or night. Potential leakage of less than 50 milligrams of dimethoxyethane and propylene carbonate. Dimethoxyethane rapidly evaporates. Do not give ipecac.

### SECTION 5: FIRE FIGHTING MEASURES

**Fire and Explosion Hazards:** Batteries may burst and release hazardous decomposition products when exposed to a fire situation.

**Extinguishing Media:** Use dry chemical, alcohol foam, water or carbon dioxide as appropriate for the surrounding fire. For incipient fires, carbon dioxide extinguishers are more effective than water.

**Special Fire Fighting Procedures:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Fight fire from a distance or protected area. Cool fire exposed batteries to prevent rupture. Use caution when handling fire-exposed containers (batteries may explode in heat of fire).

**Hazardous Combustion Products:** Thermal degradation may produce hazardous fumes of lithium and manganese; oxides of carbon and other toxic by-products.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

Notify safety personnel of large spills. Irritating vapors and flammable vapors may be released from leaking or ruptured batteries. Eliminate all ignition sources. Evacuate the area and allow the vapors to dissipate. Clean-up personnel should wear appropriate protective clothing to avoid eye and skin contact and inhalation of vapors or fumes. Increase

ventilation. Carefully collect batteries and place in an appropriate container for disposal. Remove spilled liquid with absorbent and contain for disposal.

## SECTION 7: HANDLING AND STORAGE

Avoid mechanical or electrical abuse. DO NOT short circuit or install incorrectly. Batteries may explode, pyrolyze or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries in accordance with equipment instructions. Replace all batteries in equipment at the same time. Do not carry batteries loose in a pocket or bag.

**Storage:** Store batteries in a dry place at normal room temperature.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The following occupational exposure limits are provided for informational purposes. No exposure to the battery components should occur during normal consumer use.

Chemical Name	Exposure Limits
Manganese Dioxide	5 mg/m <sup>3</sup> Ceiling OSHA PEL 0.2 mg/m <sup>3</sup> TWA ACGIH TLV
Propylene Carbonate	2 mg/m <sup>3</sup> Ceiling ACGIH TLV
Lithium	None established
Graphite (synthetic non-fibrous))	5 mg/m <sup>3</sup> TWA (respirable dust), 15 mg/m <sup>3</sup> TWA (total dust) OSHA PEL 2 mg/m <sup>3</sup> TWA (respirable dust) ACGIH TLV
1,2-Dimethoxyethane	None established.
Lithium Perchlorate	None established

**Ventilation:** No special ventilation is needed for normal use.

**Respiratory Protection:** None required for normal use.

**Skin Protection:** None required for normal use. Use butyl rubber gloves when handling leaking batteries.

**Eye Protection:** None required for normal use. Wear safety goggles when handling leaking batteries.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Coin cells.

**Specific Gravity:** Not applicable

**Water Solubility:** Insoluble

**Vapor Pressure:** Not applicable

**Vapor Density:** Not applicable

**Boiling Point:** Not applicable

**Melting Point:** Not applicable

**Flash Point:** 29°F (-2°C) (1,2-Dimethoxyethane)

**Autoignition Point:** Not applicable

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** This product is stable.

**Incompatibility/Conditions to Avoid:** Contents are incompatible with strong oxidizing agents. Do not heat, crush, disassemble, short circuit or recharge.

**Hazardous Decomposition Products:** Thermal decomposition may produce hazardous fumes of lithium and manganese; oxides of carbon and other toxic by-products.

**Hazardous Polymerization:** Will not occur

## SECTION 11: TOXICOLOGICAL INFORMATION

### Acute Toxicity Data:

Manganese Dioxide: LD50 oral rat >3478 mg/kg

Propylene Carbonate: LD50 oral rat 29100 uL/kg; LD50 dermal rabbit >20 mL/kg; LC50 inhalation rat >5 g/m<sup>3</sup>

1,2-Dimethoxyethane: LDLo oral rat 1000 mg/kg, LCLo inhalation rat 63 g/m<sup>3</sup>/6 hr

**Chronic Effects:** The chemicals in this product are contained in a sealed can and exposure does not occur during normal handling and use. No chronic effects would be expected from handling a leaking battery.

**Target Organs:** Skin, eyes and respiratory system.

**Carcinogenicity:** None of the components of this product are listed as carcinogens by ACGIH, IARC, NTP or OSHA

## SECTION 12: ECOLOGICAL INFORMATION

No ecotoxicity data is available. This product is not expected to present an environmental hazard.

## SECTION 13: DISPOSAL INFORMATION

Disposal should be in accordance with Federal, state/provincial and local regulations. Large quantities of open batteries should be treated as hazardous waste. Do not incinerate except for disposal in a controlled environment.

Some communities offer recycling or collection of batteries – contact your local government for disposal practices in your area

In California, packages that contain lithium manganese dioxide coin cells and the owner/operating instructions of products that contain lithium manganese dioxide coin cells must include the following statement: **“Perchlorate Material – Special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).”**

**SECTION 14: TRANSPORT INFORMATION**

**Emergency Phone Number:**

**CHEMTREC 24-Hour Emergency Response Hotline  
+703-527-3887 (United States of America)**

The information in this section is provided for informational purposes only.

**DURACELL lithium metal batteries are produced and delivered in accordance with IATA 56th ICAO, IMO and US DOT Regulations.** DURACELL lithium metal cells and batteries are not subject to the other provisions of the Dangerous Goods regulations as long as they are packaged and marked in accordance with the appropriate regulations.

All persons who prepare or offer lithium batteries for transport are required by regulation to be sufficiently trained and aware of all applicable regulations. Regulatory guidance for safe packaging requires that batteries be packaged in a manner that prevents short circuits, prevent battery movement within the package and that prevents spillage of contents.

<b>DURACELL Primary Lithium Metal Batteries</b>
<b>UN3090</b> Primary lithium metal batteries <b>UN3091</b> Primary lithium metal batteries packed with or contained in equipment
<b>UN 38.3 Transportation Tests :</b> <b>DURACELL</b> certifies that all of its lithium batteries meet the requirements of the UN Manual of Tests and Criteria, Part III subsection 38.3 and the batteries were
<b>US DOT:</b> Special Provision 49CFR-173.185,
<b>Air Transport IATA/ICAO:</b> <b>Special Provisions</b> A88, A99, A154, A164, A183, A201 PI 968 – Lithium metal batteries only PI 969 – Lithium metal batteries packed with equipment PI 970 – Lithium metal batteries contained in equipment
<b>Marine/Water Transport (IMDG):</b> Special Provision 188, 230, 310, 957
<b>ADR:</b> Special Provisions: 188, 230, 310, 957
<b>Air travelers</b> should consult the US Department of Transportation (DOT) Safety Travel web site at <a href="http://safetravel.dot.gov">http://safetravel.dot.gov</a> for guidance regarding carry on of lithium batteries.

The gram weight of lithium metal in Duracell lithium metal cells & batteries is:

<b>Catalog Number</b>	<b>Lithium Content grams</b>
DL 1616	.02 g
DL 1620	.02 g
DL 2016	.02 g
DL 2032	.07 g
DL 2430	.07 g
DL 2450	.15 g



**SECTION 15: REGULATORY INFORMATION**

**United States**

**OSHA Status:** While the finished product(s) is considered an article and not covered by the OSHA Hazard Communication Standard, 29 CFR 1910.1200, this PSDS contains valuable information critical to the safe handling and proper use of the product".

**EPA TSCA Status:** All intentionally-added components of this product are listed on the US TSCA Inventory.

**SARA 313/302/304/311/312 chemicals:** Manganese compounds 65-75%

**California:** This product has been evaluated and certain products require a warning labeling for perchlorate under California Proposition 65.

**State Right-to-Know and CERCLA:**

The following ingredients present in the finished product are listed on state right-to-know lists or state worker exposure lists

Ingredient	CAS #	Level	CERCLA RQ	State				
				IL	MA	NJ	PA	RI
Manganese Dioxide	1313-13-9	65-75%	None	Y	Y	N	Y	Y
Propylene Carbonate	108-32-7	10-15%	None	Y	Y	Y	Y	Y
Lithium	7439-93-2	5-10%	None	Y	Y	Y	Y	Y
Graphite	7782-42-5 7440-44-0	5-10%	None	Y	Y	N	Y	Y
1,2-Dimethoxyethane	110-71-4	1-10%	None	Y	Y	Y	Y	N
Lithium Perchlorate	7791-03-9	<1.5%	None	N	N	N	N	N

**Canada** All intentionally-added components of this product are listed on the Canadian DSL. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and this PSDS contains all information required by the Controlled Products Regulations.

**SECTION 16: OTHER INFORMATION**

**P&G Hazard Rating:** Health: 0      Fire: 0      Reactivity: 0

=====  
Data supplied is for use only in connection with occupational safety and health.

**DISCLAIMER:** This PSDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by P&G to be dependable and is accurate to the best of the Company's knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.

This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. P&G assumed no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.