SHEET 0052764

Material Safety Data Sheet
Date of issue: |Revision Date: March 28, 2013|Revision Number:
Imperial Supplies Part Number: 0052560.0052710.0052720.0052760.0054800
1. PRODUCT AND COMPANY IDENTIFICATION
Manufacturer: Duracell, a P&G brand
EUROPEAN OFFICE
Berkshire Corporate Park
Procter& Gamble
Bethel, CT 06801 USA
Switzerland SARL
Telephone: 203-796-4000
Route de Saint-Georges 47
1213 Petit-Lancy, 1, Geneva,
Telephone: +41-58-004-6111
Emergency Phone

Product Name: DURACELL LITHIUM MANGANESE DIOXIDE COIN CELLS
Product Code(s): The gram weight of lithium metal in Duracell lithium metal cells & batteries is:
Catalog Number
Total Lithium Content
Description

DL 1616
.02 g
Coin Cell

DL 1620
.02 g
Coin Cell

DL 2016

.02 g
Coin Cell

DL 2025
.07g
Coin Cell

DL 2032
.07 g
Coin Cell

DL 2430
.07 g
Coin Cell

DL 2450
.15 g
Coin Cell

Recommended Use: Energy Source
UN-Number: UN3090
Product Type:

2. HAZARDS IDENTIFICATION

These products are classified as Articles under REACH and are not subject to the requirements for Information in the Supply Chain (Safety Data Sheets and Labels). While batteries may release hazardous substances if damaged, this is not an intended release as defined under REACH. Batteries are not classified as hazardous under the CLP. The following information is provided to assist in the safe use of our products.
CAUTION: 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.

Appearance: Coin cells.	Physical State:	Odor: Coin cells.

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.

Principle Routes of Exposure

Acute Effects:

Eyes	
Skin	
Inhalation	
Ingestion	

Notes:

Chronic Effects:

Eyes	
Skin	
Inhalation	
Ingestion	

Notes:

Aggravated Medical Conditions

Environmental Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical/Ingredient Name	CAS-No	Weight%	ACGIH, TLV-TWA	OSHA-PEL	Other
Manganese Dioxide	1313-13-9	15-75 %			
Propylene Carbonate	108-32-7	2-15 %			
Lithium	7439-93-2	1-10 %			
Graphite, synthetic	7440-44-0	1-10 %			
1,2-Dimethoxyethane*	110-71-4	1-10 %			
Lithium Perchlorate	7791-03-9	<1.5 %			

Notes: *SVHC Substance per Candidate List Updated June 18, 2012

4. FIRST AID MEASURES

General Advice: 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.

Eyes	If battery is leaking and material contacts the eye, flush thoroughly with copious amounts of running water for 30 minutes. Seek immediate medical advice.
Skin	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 advice.
Inhalation	Inhaled: If battery is leaking, contents may be irritating to respiratory passages. Move to fresh air. If irritation persists, seek medical advice.
Ingestion	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.
Notes 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. Potential leakage of less than 50 milligrams of dimethoxyethane

	and propylene carbonate. Dimethoxyethane rapidly evaporates. Do not give ipecac.
Protection of First-aiders	
Notes	

5. FIRE-FIGHTING MEASURES

Flammability/Flammable properties	
Flash point	
Recommended Extinguishing Media	Use any extinguishing media that is appropriate for the surrounding fire.
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).
Explosion Data	Batteries may burst and release hazardous decomposition products when exposed to a fire situation. Hazardous Combustion Products: Thermal degradation may produce hazardous fumes of lithium and manganese; oxides of carbon and other toxic by-products.
Sensitivity to Mechanical Impact	
Sensitivity to Static Discharge	
Specific Hazards from Chemical	
Protective Equipment	

NFPA	Health Hazard:	Flammability:	Instability:	Physical Hazard
HMIS	Health Hazard:	Flammability:	Physical Hazard:	PPE:

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Environmental Precautions
Methods for Containment
Methods for Cleaning Up
Notes: Notify safety personnel of large spills. Irritating vapors and flammable 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.

7. HANDLING AND STORAGE

Handling: Avoid mechanical or electrical abuse. DO NOT short circuit or install incorrectly. Batteries may explode, pyrolize 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines: No exposure to the battery components should occur during normal use.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	OTHER

Engineering Measures

Personal Protective Equipment

Eyes/Face Protection	None required for normal use. Wear safety goggles when handling leaking batteries.
Skin and Body Protection	None required for normal use. Use butyl rubber gloves when handling leaking batteries.
Respiratory Protection	None required for normal use.
Ventilation/Other	No special ventilation is needed for normal use.

Hygiene Measures

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Coin cells.	Odor	
Odor Threshold		Physical State	
Color		Viscosity	
pH		Percent Volatile, wt. %	
Flash Point	29°F (-2°C) (1,2-Dimethoxye hane)	Auto-ignition Temperature	
Decomposition Temp		Boiling Point/ Range	
Melting Point/Range		Freezing Point	
Flammability		Explosion Limits	
Specific Gravity		Water Solubility	Insoluble
Solubility		Evaporation Rate	
Vapor Pressure		Vapor Density	
VOC content, wt. %			

Notes

10. STABILITY AND REACTIVITY

Chemical Stability	This product is stable.
Incompatible Products	Contents are incompatible with strong oxidizing agents. Do not heat, crush, disassemble, short circuit or recharge.
Conditions to avoid	
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.
Notes	

11. TOXICOLOGY INFORMATION

Acute Toxicity

Product Information	
Inhalation	Inhalation of vapors or fumes released due to heat or a large number of leaking batteries may cause respiratory and eye irritation.
Eye Contact	Contact with battery contents may cause irritation.
Skin Contact	Contact with battery contents may cause 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.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation

Chronic Toxicity

Chemical Name	ACGIH	IARC	NTP	OSHA

Target Organ Effects

12. ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data is available. This product is not expected to present an environmental hazard.
The Environmental impact of this product has been fully investigated

Chemical Name	Toxicity to Algea	Toxicity to Fish	Tox, to Microorganisms	Daphnia Magna (water flea)

Notes

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Disposal should be in accordance with national and local regulations. Do not incinerate for disposal except for in a controlled incinerator. Duracell manganese dioxide lithium coin cell batteries are labeled in compliance with the EU Battery Directive 2006/66.

Contaminated Packaging

US EPA Waste number

Notes

14. TRANSPORTATION INFORMATION

DOT

UN-Number	UN3090
	UN3091

Proper Shipping name	Primary lithium metal batteries
	Primary lithium metal batteries packed with or contained in equipment
Hazard Class	
Packing Group	
Description	DURACELL lithium metal batteries are produced and delivered in accordance with 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.
	Special Provision 49CFR-173.1859(c) - SP A101
	DURACELL 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.
	Air travelers should consult the US Department of Transportation (DOT) Safety Travel web site at http://safetravel.dot.gov for guidance regarding carry on of lithium batteries.
Emergency Response Guide Number	CHEMTREC 24-Hour Emergency Response Hotline +703-527-3887 (United States of America)

TDG	
UN-Number	
Proper Shipping name	

Hazard Class	
Packing Group	
Description	
MEX	
UN-Number	
Proper Shipping name	
Hazard Class	
Packing Group	
Description	
ICAO	
UN-Number	
Proper Shipping name	
Hazard Class	
Packing Group	
Description	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. Special Provisions 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

IATA

UN-Number	
Proper Shipping name	
Hazard Class	
Packing Group	
ERG Code	
Description	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.. Special Provisions 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

IMDG/IMO

UN-Number	
Proper Shipping name	
Hazard Class	
Packing Group	
EmS No.	
Description	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.
|
|Special Provision 188, 230, 310, 957

RID
UN-Number |
Proper Shipping |
name |
Hazard Class |
Packing Group |
Classification Code|
Description |
ADR/RID-Labels |

ADR
UN-Number |
Proper Shipping |
name |
Hazard Class |
Packing Group |
Classification Code|
Description |Special Provisions: 188, 230, 310, 957
ADR/RID-Labels |

ADN
UN-Number
Proper Shipping name

Hazard Class
Packing Group
Classification Code
Special Provisions
Description
Hazard Labels
Limited Quantity

15. REGULATORY INFORMATION

International Inventories
TSCA
DSL
EINECS
ENCS
IECSC
PICCS
AICS

U.S. Federal Regulations
SARA 313
SARA 311/312 Hazard Categories
Acute Health Hazard
Chronic Health Hazard
Fire Hazard
Sudden Release of Pressure Hazard
Reactive Hazard

Clean Water Act

CERCLA

U.S. State Regulations

U.S. State Right-to-Know Regulations

International Regulations: EU BATTERY DIRECTIVE: These batteries comply with the Directive substance limits and labeling requirements.

EU REACH REGISTRATION: These products are manufactured articles and not subject to REACH registration requirements.
EU REACH SVHC: These products contains 1, 2-dimethoxyethane (ethylene glycol dimethyl ether) which is listed on the Candidate List of Substances of Very High Concern.
EU Labeling: Labeling is not required because batteries are classified as articles under the both REACH and the Dangerous Preparations Directive and as such are exempt from the requirement for labeling.

Canada

16. OTHER INFORMATION

Prepared By:
Revision Date: March 28, 2013
Company: Duracell, a P&G brand
Revision number
Telephone number: 203-796-4000

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

Other Information: Data supplied is for use only in connection with occupational safety and health.

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