

SHEET 0052760

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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

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.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	Physical State:	Odor: Coin cells.
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-PE L	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

Special Fire-Fighting
Procedures

|Use any extinguishing media that is
|appropriate for the surrounding fire.
|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 |PPE:
| | |Hazard: |

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	None required for normal use. Wear safety goggles
Protection	when handling leaking batteries.
Skin and Body	None required for normal use. Use butyl rubber gloves
Protection	when handling leaking batteries.
Respiratory	None required for normal use.
Protection	
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)	Auto-ignition	
	(1,2-Dimethoxy	Temperature	
	ylene hane)		
Decomposition		Boiling Point/ Range	
Temp			
Melting		Freezing Point	
Point/Range			
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

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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	Toxicity to	Tox, to	Daphnia Magna
	Algea	Fish	Microorganisms	(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	CHEMTREC 24-Hour Emergency Response Hotline
Guide Number	+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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