Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: DURACELL LITHIUM MANGANESE DIOXIDE COIN CELLS
Product Identification: Lithium Manganese Dioxide Coin Cells –

Duracell Designations:

Battery Name/Size	Duracell Designation	Voltage	IEC Designation
Duracell 1220	1220	3	CR1220
Duracell 1616	1616	3	CR1616
Duracell 1620	1620	3	CR1620
Duracell 2016	2016	3	CR2016
Duracell 2025	2025	3	CR2025
Duracell 2032	2032	3	CR2032
Duracell 2430	2430	3	CR2430
Duracell 2450	2450	3	CR2450

Product Use: Energy Source
SDS Date of Preparation: April 20, 2009
Company Identification:

EU Office
Procter & Gamble UK.
The Heights, Brooklands
Weybridge, Surrey
KT13 0XP UK
Telephone: +44-1-93-289-6000

Switzerland Office
Procter& Gamble
Switzerland SARL
Route de Saint-Georges 47
1213 Petit-Lancy, 1, Geneva,
Telephone: +41-58-004-6111

US Office
Duracell, a division of P&G
Berkshire Corporate Park
Bethel, CT 06801 USA
Telephone: 203-796-4000

Emergency Phone Number: CHEMTREC 24-Hour Emergency Response Hotline: 703-527-3887 (United States of America)

SECTION 2: HAZARDS IDENTIFICATION

Physical Appearance: Small cylindrical batteries.

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. For information on treatment, call the NATIONAL BUTTON BATTERY INGESTION HOTLINE, collect to the United States of America, day or night at (202) 625-3333. 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.

EU Classification of Preparation: Not classified as a dangerous preparation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	EINECS Number	Amount	Classification
Manganese Dioxide	1313-13-9	215-202-6	65-75 %	Xn, R20/22
Propylene Carbonate	108-32-7	203-572-1	10-15 %	Xi, R36
Lithium	7439-93-2	231-102-5	5-10 %	C, F, R14/15, R34
Graphite, synthetic	7440-44-0	231-153-3	5-10 %	None
1,2-Dimethoxyethane	110-71-4	203-794-9	1-10 %	F, Repr Cat 2, Xn, R11, R19, R20, R60, R61
Lithium Perchlorate	7791-03-9	232-237-2	<1.5 %	O, Xi, R8, R36/37/38

SECTION 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.

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 advice.

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 advice.

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

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 to the United States of America, 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 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).

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 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, 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.

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. **Refer to specific country regulations for additional exposure limit information.**

Chemical Name	Exposure Limits
Manganese Dioxide	0,5 mg/m^3 TWA UK WEL 0,5 mg/m^3 TWA (inhalable) DFG MAK 0,2 mg/m VL Belgium 0,2 mg/m^3 TWA Denmark LV
Propylene Carbonate	None established
Lithium	None established
Graphite	4 mg/m^3 TWA UK WEL (respirable dust) 10 mg/m^3 TWA UK WEL (inhalable dust) 1,5 mg/m^3 TWA DFG MAK (respirable dust) 4 mg/m^3 TWA DFG MAK (inhalable dust) 2 mg/m^3 VL Belgium (respirable dust)
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.
Water Solubility: Insoluble
Flash Point: 29°F (-2°C) (1,2-Dimethoxyethane)

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

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.

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/m3
1,2-Dimethoxyethane: LDLo oral rat 1000 mg/kg, LCLo inhalation rat 63 g/m3/6 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 the EU Directive on the classification and labeling of substances.

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 national and local regulations. Do not incinerate for disposal except for in a contolled incinerator.

Duracell manganese dioxide lithium coin cell batteries are labeled in compliance with the EU Battery Directive 2006/66.

SECTION 14: TRANSPORT INFORMATION

The transportation of lithium batteries is regulated as UN3090 by ICAO, IATA, IMO and US DOT. However, DURACELL lithium manganese dioxide batteries cells and batteries are not subject to the other provisions of the regulations as long as they are packaged and marked in accordance with the regulations. (The lithium content of cells contained in this document is less than 1 gram.)

DURACELL certifies that all of its lithium batteries meet the requirements of the UN Manual of Tests and Criteria, Part III subsection 38.3. If you assemble these batteries into larger battery packs, it is recommended that you perform the UN Tests to ensure the requirements are met prior to shipment. Cells and batteries are to be separated so as to prevent short circuits and packed in strong packaging, except when installed in equipment. Except when installed in equipment, each package containing more than 24 cells or 12 batteries must be marked indicating that it contains lithium batteries and that special procedures should be following in the event that the packaging is damaged. In addition, each shipment must be accompanied by appropriate documentation and the package must be capable of withstanding the drop test requirements.

Shipping packages containing non-rechargeable lithium batteries must be labeled, regardless of size or number of batteries, with the following statement: “PRIMARY LITHIUM BATTERIES – FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT.” The labeling requirement covers shipments via highway, rail, vessel or cargo-only aircraft and covers all shipments inside, into or out of the US. The label must be in contrasting color and the letters must be 12 mm (0.5 in) in height for packages weighing more than 30 kg (66 lbs) and 6 mm (0.24 in) in height for packages less than 30 kg (66 lbs).

Except for personal use, the shipment of lithium batteries aboard passenger aircraft is no longer allowed. Airline passengers may continue to have non-rechargeable lithium batteries for their equipment and a reasonable amount of spare non-rechargeable lithium batteries for their equipment in their carry-on luggage – not in their checked baggage. For more information, air travelers should consult the US Department of Transportation (DOT) Safety Travel web site at http://safetravel.dot.gov

Effective January 1, 2009, new ICAO regulations for air cargo shipments require a reduced package size quantity and the use of two new labels. The maximum quantity a single master carton must not exceed 2.5 Kg. The new caution label requires the proper UN for the batteries being shipped and a telephone number for information. In the case of primary lithium metal batteries, the UN number is UN3090. The package must also bear a new 'cargo aircraft only' label.

At this time, IMO and ADR continue to follow Special Provision 188 from the UN Model Regulations.

SECTION 15: REGULATORY INFORMATION

EU Classification of Preparation: Not classified as a dangerous preparation.

REACH: These products are manufactured articles and not subject to REACH registration requirements.

EU Labeling: None Required
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.

SECTION 16: OTHER INFORMATION

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

EU Classes and Risk Phrases for Reference (See Sections 2 and 3)
C Corrosive
F Flammable
O Oxidizing
Repr Cat 2 Toxic to reproduction Category 2
Xi Irritant
Xn Harmful
R8 Contact with combustible material may cause fire.
R11 Very Flammable
R14/15 Reacts violently with water, liberating extremely flammable gases
R19 May form explosive peroxides
R20 Harmful by inhalation
R20/22 : Harmful by inhalation and if swallowed.
R34 Causes burns
R36 Irritating to eyes
R36/37/38 Irritating to eyes, respiratory system and skin.
R60 May impair fertility.
R61 May cause harm to the unborn child.
==========
Data supplied is for use only in connection with occupational safety and health.

DISCLAIMER: This SDS 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 Procter & Gamble 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. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.