

Product Name	Procell Lithium Coin			
Chemical System	Lithium Manganese Dioxide			
Description	Procell Branded Consumer Lithium Battery			
Product Category	Electro-Technical Device			
Use	Portable power source for electronic devices.			
Physical Description (IEC Designation)	Sizes: PC (2016, 2025, 2032, 2450)			
	CR (2016, 2025, 2032, 2450)			
Principles of Operation	A battery powers a device by converting stored chemical energy into electrical energy.			
Representative Product Images				
	Retail	Bulk		
Document ID	PSDS –Procell Li Coin			
Date Prepared	2/15/2022			
Preparer	Product Safety & Regulatory			

This Product Safety Data Sheet (PSDS) provides relevant battery information to retailers, consumers, OEMs, and other users requesting a GHS-compliant PSDS. Articles, such as batteries, are exempt from GHS PSDS classification criteria. The GHS criteria is not designed or intended to be used to classify the physical, health, and environmental hazards of an article. Branded consumer batteries are defined as electro-technical devices. The design, safety, manufacture, and qualification of branded consumer batteries follow ANSI and IEC battery standards. This document is based on principles set forth in the following hazard communication approaches ANSI Z-400.1, GHS, JAMP AIS, and IEC 62474.

Section 1: MANUFACTURER'S INFORMATION

Manufacturer's Name and Address	Duracell Industrial Operations, Inc 14 Research Drive Bethel, CT USA 06801
	Duracell Batteries BV, Nijverheidslaan 7, 3200 Aarschot, Belgium.
	Duracell International Operations Sàrl, Rue du Pré-de-la-Bichette 1, CH-1202, Geneva, Switzerland
	Duracell (China) Ltd. Hongtu High & New Technology Development Zone, Nan Cheng District, Dongguan, 523080 Guangdong, China
	Duracell (Jiangxi) Technologies Co., Ltd. No. 819 Factory, Huangtang East Street, Linkong Economic Zone, Nanchang City, Jiangxi Province, China

	<p>Duracell Australia Pty. Ltd. Suite 2.01, Level 2 423 Pennant Hills Rd, Pennant Hills NSW 2120 Australia</p> <p>Duracell Mexico Av. Santa Fe 440 Of. 100 Col. Santa Fe Cruz Manca Del. Cuajimalpa de Morelos, CDMX, 05348, Mexico</p>
Telephone	(203) 796-4000

Global Website	www.procell.com
Consumer Relations	<p>North America 1-800-551-2355 (9:00 AM - 5:00 PM EST)</p>
	<p>Latin America (Brazil) 0 800 727 1165, (Chile) 188 800 224 488, (México) 0 1800 283 2901 (Rest of Latin America) procell.mx/help.</p>
	<p>Europe & Asia (UK) 0800 716434, (FR) 0800 346 790 (Service & appel gratuits), (IRL) 1 800 509 176, (DE) 800 101 2112, (AT) 0800 1025 1956, (CH) 0800 000 885, (BE) 0800 509 95, (NL) 0800 265 8616, (IT) 800 125 662, (ES) 900 800 522, (PT) 800 781 012, (GR) 210 66 75 000, (CY) 22-210900, (DK-FI-NO-SE) 4687991926, (NO) 63791957, (ZA) +27211403500, (RO) 021 3361915, (IS) 354545222700 (MD) 022472402, (BG) 02 40 24 500, (BIH) 033756000, (MNE) 020261920, (PL) 22 692 42 77, (LT) (8) 37 401 111, (LV) 67798667, (EE) +3726505555, (CZ) +420233332010, (SK) +42153419601, (HU) 0620 770 7099, (HR) 0800 0009, (SI) 01/588 6800, (AZ) 812 3100949, (UA) +380444909771 (ДП «CAB 92») & +380442476704 (TOB «IHBECTKOM»), (KZ) +7 727 250 05 50, (TM) 00865 530070, (KG) 0312 41 77 04 (Apple City International), (TR) 0 850 502 61 40</p>

Section 2: HAZARD IDENTIFICATION

Product is a sealed article, not a mixture or substance. Exposure to contents inside the sealed battery will not occur unless the battery leaks, is exposed to high temperatures, or is mechanically abused.

Other Hazards that do not results in a rating: Battery may explode or leak when heated, disassembled, short-circuited, recharged or exposed to fire or high temperature, or inserted incorrectly. Keep coin batteries out of reach of children.

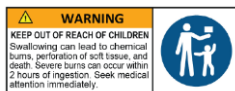
GHS classification according to ABNT NBR 14725-2:2012. None required according to ranking criteria. PSDS requirements and GHS classification criteria do not apply to articles or products (such as batteries) that have a fixed shape and are not intended to release a chemical. Article exemption is found in Section 1.3.2. 1.1 of the GHS and states: The GHS applies to pure substances, their diluted solutions and mixtures.

2.1 Labeling: Required for Small Cell or Battery: Keep away from children. If swallowed, consult a physician immediately.

ANSI or IEC requirements:



OR



OR



Section 3: COMPOSITION



Applicable Battery Industry Standards	ANSI C18.3M Part 1, ANSI C18.3M Part 2, ANSI C18.4, IEC 60086-1, IEC 60086-2, IEC 60086-4
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Lithium Coin Batteries

Description	Procell branded consumer battery for OEM applications
Battery Electro-Technical System	Lithium Manganese Dioxide

COMPONENTS	INGREDIENTS	CAS NUMBER	Amount
Electrode – Negative	Lithium Alloy	7439-93-2	0.5-6%
Electrode – Positive	Manganese Dioxide	1313-13-9	12-50%
Electrolyte	Organic Electrolyte 1,2Dimethoxyethane solvent Lithium Perchlorate Salt	110-71-4	2.5-7% 1.5-3.5%
		7791-03-9	0.2-0.7%
Cathode	Polytetrafluoroethylene (PTFE)	9002-84-0	0.1-1%
Bitterant	Denatonium benzoate	3734-33-4	0.1-1%
Can	Nickel-pated Steel		8-15%
Other Non-Reactive Materials			10%

COMPLIANCE

Declarable substances (IEC 62474 Criteria 1)	1,2-Dimethoxyethane (CAS#110-71-4)
Mercury Free Battery (ANSI C18.4M <5ppm) P.R.C. Provision on Mercury Content Limitation for Batteries (GB 8897.5-2005, MOD, Section 9.1(e))	No Mercury No Mercury added. 
P.R.C. Mercury Free Battery (GB 24427-2009) < 1ppm	Yes, No Mercury Added 
Small Cell or Battery (ANSI C18.1M Part 2; IEC 60086-4)	Lithium coin batteries fit inside a specially designed test cylinder 2.25inches (57.1 mm) long by 1.25 inches (31.70 mm) wide.

Section 4: FIRST AID MEASURES

(In case of electrolyte leakage from the battery.)

Eye Contact	Flush thoroughly with copious amounts of running water for at least 15 minutes. Hold eyelids open to assure thorough flushing. Seek immediate medical attention.
Skin Contact	Immediately remove contaminated clothing and shoes while flushing with water. Continue to flush exposed skin with water for at least 15 minutes. Seek medical attention if irritation develops and persists. Launder contaminated clothing before reuse and discard shoes and other items that cannot be decontaminated.
Ingestion	Required for Small Cell or Battery: Keep away from children. If swallowed, consult a physician immediately.
Note to Physician	A damaged battery will release concentrated and caustic potassium hydroxide.

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	<p>For information on battery identification and treatment, call the 24-hour National Battery Ingestion Hotline (800-408-8666). Additional treatment information is available from the National Capital Poison Control Center Button Battery Ingestion Triage and Treatment Guideline: https://www.poison.org/battery/guideline. If the patient is less than or equal to 12 years, immediately obtain an x-ray to locate the battery. If the patient is > 12 years and the battery diameter is > than 12 mm or unknown also obtain an x-ray. X-rays should include the entire neck, esophagus, and abdomen. Once the position of the battery in the esophagus is determined by x-ray and if less than 12 hours post-ingestion consider giving sucralfate suspension 10ml by mouth every 10 minutes, up to 3 doses while waiting for sedation for endoscopy. Do not delay battery removal because a patient has eaten recently or was given honey or sucralfate by mouth. Batteries lodged in the esophagus should be removed immediately since battery leakage, caustic burns, and perforation can occur as soon as two hours after ingestion. Endoscopic removal is preferred as it allows direct visualization of tissue injury. After the battery is removed from the esophagus if no perforation is evident irrigate the injured area with 50 mL to 150 mL of 0.25% sterile acetic acid and then observe for delayed complications. If a large battery (equal to or greater than 20 mm) is in the stomach or beyond of a child < 5 years and based on history, might have lodged in the esophagus for > 2 hours, consider diagnostic endoscopy to exclude the remote possibility of esophageal injury. Retrieve batteries, endoscopically if possible, from the stomach or beyond if: 1) A magnet was also ingested, 2) The patient develops signs or symptoms that are likely related to battery ingestion, or, 3) A large battery equal to or greater than 15 mm is ingested by a child younger than 6 years, remains in the stomach for 4 days or longer. Allow batteries to pass spontaneously if they have passed beyond the esophagus (stomach and beyond) and no clinical indication of any significant gastrointestinal injury is evident. Confirm battery passage by inspecting stools. Consider repeat radiographs to confirm passage if battery passage not observed in 10-14 days.</p>
<p>Poison Center/North America</p>	<p>USA/Canada Calls Only: 1-800-498-8666 (Toll Free) [24-Hour National Battery Ingestion Hotline]</p>
<p>Poison Center World Directory</p>	<p>http://globalcrisis.info/poisonemergency.html#AAA</p>
<p>If Swallowed</p>	<p>DO NOT GIVE IPECAC. Do not induce vomiting. Seek medical attention immediately and call 24-hour NATIONAL BATTERY INGESTION HOTLINE (800-498-8666) for assistance with battery identification and treatment. Additional treatment information is available from the National Capital Poison Control Center Button Battery Ingestion Triage and Treatment Guideline: https://www.poison.org/battery/guideline. Attempt to determine battery imprint code (or diameter) of companion or replacement battery. If no imprint code is available, measure or estimates the battery diameter based on the size of the slot the battery fits or the size of the comparable battery. Provide this information to the treating health care provider. If the child is greater than 12 months of age and able to swallow, and the battery was swallowed within the prior 12 hours, if readily available administer honey immediately and while on route to the emergency room. Give 10 mL (2 teaspoons) of honey by mouth every 10 minutes for up to 6 doses. Do not delay going to the ER to obtain or give honey. Other than honey, do not give anything by mouth.</p>
<p>Inhalation</p>	<p>Contents of leaking battery may be irritating to respiratory passages. Move to fresh air. Seek medical attention if irritation persists.</p>

Section 5: FIRE FIGHTING MEASURES

<p>Substance or Mixture Specific Hazards</p>	<p>Batteries may rupture or leak if involved in a fire. Use any extinguishing media appropriate for the surrounding area.</p>
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Lithium Coin Batteries

Fire Fighting Measures	Remove container from fire area if this can be done without risk. Avoid inhaling the material or combustion products. Keep downwind and away from low areas.
Advice for Fire-Fighters	Large quantities of batteries involved in a fire will rupture and release corrosive lithium hydroxide. Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Fight fire from a distance or protected area. Cool fire-exposed containers to prevent rupture. Do not breathe smoke, gases or vapors generated

Section 6: ACCIDENTAL RELEASE INFORMATION

(In case of electrolyte leakage from the battery.)

Spills of Large Quantities of Loose Batteries (unpackaged)	Notify spill personnel of large spills. Irritating vapors may be released from leaking or ruptured batteries. Spread batteries apart to stop shorting. Eliminate all ignition sources. Clean-up personnel should wear appropriate PPE to avoid eye and skin contact and inhalation of vapors or fumes. Increase ventilation. Carefully collect batteries and place in appropriate container for disposal. Remove any spilled liquid with absorbent material and contain for disposal.
Personal Precautions, Protective Equipment and Emergency Procedures	Clean-up personnel should wear appropriate protective clothing to prevent eye and skin contact and inhalation of dust. Ventilate area of spill. Avoid creating airborne dust. Eliminate all sources of ignition. Keep spilled material away from combustible materials.
Environmental Precautions	Avoid release to the environment without proper government permits. Prevent entry into storm sewers and waterways. Report spills as required by local and national regulations.
Methods and Material for Containment and Cleaning Up	Do not use combustible absorbents or dust control products. Carefully collect material with a scoop. Do not generate airborne dust. Place in appropriate container for disposal. Rinse the spill area with water after clean-up is complete. Collect rinse water for appropriate treatment and disposal. Remove any spilled liquid with absorbent material and contain it for disposal.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling	Do not short circuit, charge, dispose into fire or install incorrectly.
	Do not solder directly onto batteries.
	Do not mix different type or brand of batteries.
Conditions for Safe Storage, Including any Incompatibilities	Store in cool, dry place in original packaging. Do not store with acids. Store away from reducing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

This product is considered an article that does not release or result in exposure to a hazardous chemical under normal conditions of use.

No engineering controls or personal protective equipment (PPE) is required.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical Description	Article
Chemical Properties	Not Applicable

Section 10: STABILITY AND REACTIVITY

Reactivity	Stable and Non-Reactive under 60°C.
Chemical Stability	Cells/batteries may explode or leak and cause burn injuries when recharged, burnt/incinerated, mixed with different types of batteries, inserted backwards into appliances, or disassembled.


Section 11: TOXICOLOGICAL INFORMATION

The chemicals in this product are contained in a sealed can and exposure does not occur during normal handling and use.	
Mercury, Lead and Cadmium are not used in the cell. (Note: If traces are found, they may be from impurity of the raw materials, not added as part of the recipe.)	

Section 12: ECOLOGICAL INFORMATION

The chemicals in this product are contained in a sealed can and exposure does not occur during normal handling and use.	
Mercury, Lead and Cadmium are not used in the cell. (Note: If traces are found, they may be from impurity of the raw materials, not added as part of the recipe.)	

Section 13: DISPOSAL CONSIDERATIONS (GHS – Section 13)

Collect and Proper Disposal	Dispose of used (or excess) batteries in compliance with federal, state/provincial, and local regulations. Do not accumulate large quantities of used batteries for disposal as accumulations could cause batteries to short-circuit. Do not incinerate.	
Requirements of Brazil	After use, the cells and/or batteries must be delivered to the commercial establishment or authorized technical assistance network.	

Section 14: TRANSPORT INFORMATION

Regulatory Status	Procell Lithium Coin Batteries are manufactured and distributed according to current IATA/ICAO regulations. Procell Lithium Coin Batteries can be carried as per ICAO. The shipping cartons for all Procell Lithium cells/batteries are designed to prevent short circuit, displacement within the package, damage to the batteries and release of the contents of the package. Persons preparing or distributing lithium batteries for transportation are required by regulation to be trained in their level of responsibility. The information in this section has been provided for clarification. The transportation of lithium metal batteries is regulated by ICAO, IATA, IMO, US DOT,ADR.	
UN Identification Number/Shipping Name	UN3090 Lithium Batteries only UN3090 Lithium Batteries in Equipment, or Lithium Batteries with Equipment	
Total Lithium weight per cell/batteries	The metallic lithium content in each coin cell is less than 0.3 grams	

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Total Lithium Content (grams); See below for each catalog number.			
Catalog No.	Total Lithium Content (grams)	Type	Total Cell/Battery Weight (grams)
2016	<0.3	Cell	1.7
2025	<0.3	Cell	2.4
2032	<0.3	Cell	2.9
2450	<0.3	Cell	6.6
UN38.3 Test Reports	UN38.3 Test Summary Documents that are required by the UN Model Regulations, can be requested by sending an email request to UN38.3_duracell@duracell.com		
Special Provisions (SP) Conformance	Special regulatory provisions require batteries to be packaged in a manner that prevents the generation of a dangerous quantity of heat and short circuits. Shippers can prepare batteries by taping the terminals, individually packaging batteries, or otherwise segregating the batteries to prevent risk of creating a short circuit. Batteries shipped in original unopened Procell packaging is compliant.		
US DOT SP	49 CFR 173.185 © SP A101 (Packed within Equipment by Air) 49 CFR 173.185 (d) – US DOT Exemption for disposal or recycling		
Air Transport IATA 63rd edition, ICAO	PI 968 – Lithium Metal Batteries (Shipped Alone) PI 969 – Lithium Metal Batteries (Packed with Equipment) PI 970 – Lithium Metal Batteries (Contained in Equipment)		
Passenger Air Travel	Air travelers should consult the US Department of Transportation (DOT) Safety Travel website at http://safetravel.dot.gov for guidance regarding carry on of Lithium Batteries.		
Marine/Water Transport (IMDG) Special provisions	188, 230, 310, 957		
ADR/RID Special Provisions	188, 230, 310, 636, 656.		
ANTT (National Land Transportation Agency)	Regulation 5232, 14 Dec 2016; SP 188, 230, 310, 376, 377, 384; Packaging Instructions P903 Complementary Instructions 5947/, 1 July 2021		
Emergency Transportation Hotline	CHEMTREC 24-Hour Emergency Response Hotline		
	Within the United States, call: 1-800-424-9300		
	Outside of the United States, call: 1-703-527-3887 (Collect)		

Section 15: REGULATORY INFORMATION

GHS Article Exception	Section 1.3.2.1
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Section 16: OTHER INFORMATION

A Lithium battery is a safe consumable product under recommended or normal usage conditions. It is not a dangerous substance or mixture. There are no PSDS supply requirements for Lithium batteries by the Globally Harmonized System (GHS). Duracell is providing this PSDS as a service to its customers and other users who may make use of alkaline batteries in the workplace. According to standard NR-26 "Safety Signaling", manufacturers or, in the case of import, suppliers of chemical products in the domestic market must make available the PSDS' of chemical products classified as non-hazardous, but whose intended or recommended uses may give rise risks to the safety and health of workers.

Disclaimer: *This PSDS is intended to provide a summary of our knowledge and guidance regarding the use of this product. The information contained here has been compiled from sources considered by Duracell Industrial Operations, Inc. 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. Duracell Industrial Operations, Inc. assumed no responsibility for injury to the recipient or third parties, or any damage to any property resulting from the misuse of the product.*

***** End of PSDS *****