

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION AND USE				
PRODUCT IDENTIFIER:	DURACELL PROCELL PROFESSIONAL ALKALINE BATTERIES			
PRODUCT USE:	Energy source			
Product Identification No. (PIN):	Procell Alkaline Manganese Dioxide Batteries: PC1300 (D); PC1400 (C); PC1500 (AA); PC 1604 (9V); PC2400 (AAA); PC908 (6V); PC915 (6V); PC918 (6V); PC9100 (N)			
Manufacturer's Name/Address Gillette Canada Company 4 Robert Speck Parkway Suite 1000 Mississauga, Ontario L4Z 4C5 Canada		Supplier's Name/Address Not Applicable		
Emergency Phone Number: 905.566.5000		Emergency Phone Number: Not Applicable		
SECTION 2: HAZARDOUS INGREDIENTS*				
COMPOSITION (see footnotes)	Wt.%	CAS. NO.	LD50 OF INGREDIENT SPECIES AND ROUTE	LC50 OF INGREDIENT (SPECIES)
Manganese* (as Manganese Dioxide)	35-40	1313-13-9	(Mn) 9 g/kg rat, oral	(Mn)TCLo :2300 µg/m ³ man,inhal
Zinc (7440-66-6)	10-25	1310-58-3		
Potassium Hydroxide* (35%)	5-10	1310-58-3	273 mg/kg, rat, oral	50 mg/24 hour,skin,human,severe
Graphite, natural or synthetic	1-5	7782-42-5 or 7440-44-0		
SECTION 3: PHYSICAL DATA				
Boiling Point	Melting Point		Freezing Point	
Not available	Not available		Not available	
Specific Gravity	Vapor Density (air =1)		Vapour Pressure @ 20°C	
Not available	Not available		Not available	
Evaporation Rate	Coeff.Water/Oil Dist		Odour Threshold	
(Ether = 1) : Not available	Not available		Not available	
%Volatile (Vol)	Solubility in Water		pH	
Not available	Not available		Not available	
Physical State/Appearance/Odour: Cylindrical batteries. Contents dark in colour.				

Footnotes: Not applicable

SECTION 4: FIRE AND EXPLOSION DATA					
Flammability: Yes ___ No <u>X</u> .	If yes, under which conditions:				
Flash Point and Test Methods: Not applicable	Autoignition Temp: Not applicable				
Flammable Limits in Air: (% by Volume) Not applicable					
Fire Hazard: Batteries may burst and release hazardous decomposition products when exposed to a fire situation.	Extinguishing Media: As appropriate for surrounding fire.				
Explosion Data: Sensitivity to Impact: Not applicable Sensitivity to Static Discharge: Not applicable	Hazardous Combustion Products: Thermal degradation may produce hazardous fumes of zinc and manganese; hydrogen gas; caustic vapours of potassium hydroxide and other toxic by-products.				
Firefighting Procedures: Use self-contained breathing apparatus and full protective gear, if large quantities are involved. Fight fire from a distance or protected area. Cool and use caution when handling fire-exposed containers (containers may rocket or explode in heat of fire).					
SECTION 5: REACTIVITY DATA					
Stability	<input checked="" type="checkbox"/> stable	<input type="checkbox"/> unstable	Polymerization	<input type="checkbox"/> may occur	<input checked="" type="checkbox"/> will not occur
Conditions to Avoid			Conditions to Avoid		
Do not heat, crush, disassemble, short circuit or recharge.			Not applicable		
Incompatible Materials: Strong oxidizers					
Reactivity (Under what conditions): Not applicable					
Hazardous Decomposition Products: Thermal degradation may produce hazardous fumes of zinc and manganese; hydrogen gas; caustic vapours of potassium hydroxide and other toxic by-products.					
SECTION 6: TOXICOLOGICAL PROPERTIES					
Occupational Exposure Limits (PEL's, TLV's, etc.)					
8 Hour TWA's: Manganese Dioxide (as Mn) - 5 mg/m ³ (Quebec), (Ceiling) (OSHA); 0.2 mg/m ³ (ACGIH/Gillette)					
Potassium Hydroxide - 2 mg/m ³ (Ceiling) (ACGIH/Quebec)					
Graphite (all kinds except fibrous) - 2 mg/m ³ (synthetic, ACGIH); 15 mg/m ³ (total, OSHA); 5 mg/m ³ (respirable, OSHA) (natural) - 15 mppcf (Quebec)					
These levels are not anticipated under foreseeable use conditions.					
Warning Signals: Not applicable					

(SECTION 6 CONTINUED ON NEXT PAGE)

SECTION 6: TOXICOLOGICAL PROPERTIES (CONTINUED)

Route of Entry/Acute/Chronic Effects of Exposure

These chemicals and metals are contained in a sealed can. For consumer use, adequate hazard warnings are included on both the package and on the battery. Potential for exposure should not exist unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused. Contains concentrated (35%) potassium hydroxide, which is caustic. Anticipated potential leakage of potassium hydroxide is 2 to 20 ml, depending on battery size. A similar amount of zinc may also leak.

Inhalation: Respiratory (and eye) irritation may occur if fumes are released due to heat or an abundance of leaking batteries.

Ingestion: Not anticipated due to size of batteries; choking may occur with the smaller AAA battery. Irritation, including caustic burns/injury, may occur following exposure to a leaking battery.

Skin:

Contact: Irritation, including caustic burns/injury, may occur following exposure to a leaking battery.

Absorption: Not anticipated.

Eye Contact: Irritation, including caustic burns/injury, may occur following exposure to a leaking battery.

Other: Not applicable

SECTION 7: PREVENTIVE MEASURES

Personal Protective Equipment:

Eye Protection: None under normal use conditions. Wear safety glasses when handling leaking batteries.

Skin Protection: (gloves, footwear, clothing) None under normal use conditions. Use neoprene, rubber or nitrile gloves when handling leaking batteries.

Respiratory Protection: None under normal use conditions.

Other: Product is non-hazardous when used as directed. Keep batteries away from small children.

Engineering Controls: General ventilation under normal use conditions.

Handling and Storage: Store at room temperature. Avoid mechanical or electrical abuse. **DO NOT** short 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. Do not mix battery systems, such as alkaline and zinc carbon, in the same equipment. Replace all batteries in equipment at the same time. Do not carry batteries loose in pocket or bag.

Normal Clean Up: Not applicable

(SECTION 7 CONTINUED ON NEXT PAGE)

SECTION 7: PREVENTIVE MEASURES (CONTINUED)

Steps to be taken if material is released to the environment or spilled in the work area:

Not applicable.

Waste Disposal Methods: Individual consumers may dispose of spent (used) batteries with household trash. Duracell does not recommend that spent batteries be accumulated (quantities of five gallons or more should be disposed of in a secure landfill); dispose in accordance with appropriate federal, provincial and local regulations. Do not incinerate, since batteries may explode at excessive temperatures.

Special Shipping Information:

Please note: These batteries are not regulated by U. S. DOT or international agencies as hazardous materials or dangerous goods when shipped. Duracell uses the article name 'Alkaline Batteries - Non-hazardous' on all domestic and international bills of lading.

SECTION 8: FIRST AID MEASURES

Eyes:

Not anticipated. If battery is leaking and material contacts eyes, flush with copious amounts of clear, tepid water for 30 minutes. Contact physician at once.

Skin:

Not anticipated. If battery is leaking, irrigate exposed skin with copious amounts of clear, tepid water for at least 15 minutes. If irritation, injury or pain persists, consult a physician.

Inhalation:

Not anticipated. If battery is leaking, contents may be irritating to respiratory passages. Remove to fresh air. Contact physician if irritation persists.

Ingestion:

Not anticipated. Rinse mouth and surrounding area with clear, tepid water for at least 15 minutes. Consult a physician immediately for treatment and to rule out involvement of the esophagus and other tissues.

Notes to Physician:

- 1) The primary acutely toxic ingredient is concentrated (35%) potassium hydroxide.
- 2) Anticipated potential leakage of potassium hydroxide is 2-20 ml, depending on battery size.
- 3) This MSDS does not include or address the small button cell batteries, which can be ingested.

SECTION 9: PREPARATION DATE OF MSDS

Prepared by: Gillette Environment Health and Safety	Phone Number: 781.292.8151	Date: 11/20/06 Revision: 7 Replaces: 2000.6C
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The information contained in the Material Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.