

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION AND USE				
PRODUCT IDENTIFIER:	DURACELL RECHARGEABLE ACCU NICKEL METAL HYDRIDE ROUND CELLS			
PRODUCT USE:	Energy source			
Product Identification No. (PIN):	ACCU Nickel Metal Hydride Round Cells: DC1300 (D); DC1400(C); DC1500(AA); DC2400 (AAA); DC1604 (9V) (Formerly known as DynaCharge)			
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)
Nickel Hydroxide	15-25	12054-48-7	LDLo 0.48mg/kg, rat, oral	Not available
Potassium Hydroxide*	7-10	1310-58-3	273 mg/kg, rat, oral	50 mg/24 hour; skin, human, severe
Mercury	<5 ppm	7439-97-6	Not Available	LCLo: 29 mg/m ³ rabbit, inhal,30h
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: Various size batteries. Contents dark in colour.				

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: Water, carbon dioxide, sand, Class "D" extinguisher.
Explosion Data: Sensitivity to Impact: Not applicable Sensitivity to Static Discharge: Not applicable	Hazardous Combustion Products: Thermal degradation may produce hazardous mercury fumes; 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 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
<u>Conditions to Avoid</u> Do not heat, crush, disassemble, or short circuit.	<u>Conditions to Avoid</u> Not applicable
Incompatible Materials: Strong oxidizers	
Reactivity (Under what conditions): Not applicable	
Hazardous Decomposition Products: Thermal degradation may produce hazardous mercury fumes; 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: Nickel (insoluble, as Ni)- 1.0 mg/m ³ (OSHA); 0.2 mg/m ³ (ACGIH) Nickel (elemental) - 1.5 mg/m ³ (ACGIH); 1.0 mg/m ³ (Quebec/OSHA) Nickel (soluble compounds, as Ni) - 0.1 mg/m ³ (ACGIH/OSHA) Potassium Hydroxide - 2 mg/m ³ (Quebec); (Ceiling) (ACGIH) Mercury – 0.05mg/m ³ (skin) (OSHA); 0.025mg/m ³ (skin) (ACGIH) 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, is accidentally swallowed or mechanically, physically, or electrically abused. Contains concentrated (35%) potassium and sodium hydroxides, which is caustic. Anticipated potential leakage of potassium and sodium hydroxides is 2-20 mls.

Inhalation: Not anticipated. Respiratory (and eye) irritation may occur if fumes are released due to heat or an abundance of leaking batteries.

Ingestion: Not anticipated. 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 latex-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, pyrolize or vent if disassembled, crushed 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 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:

Notify safety personnel of large spills. Irritating vapours may be released from leaking or ruptured batteries. Avoid eye or skin contact and inhalation of vapours. Increase ventilation. Clean-up personnel should wear appropriate protective gear.

Waste Disposal Methods: The Duracell Rechargeable Recycling Program should be utilized to recycle the battery packs. See battery pack or instructions for a phone number to access the recycling program. Discharged batteries may be disposed of with normal household trash. 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.

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 the 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 acutely toxic ingredients are concentrated (35%) potassium and sodium hydroxides and nickel.
- 2) Chronic exposure to nickel has been reported to be carcinogenic and disposal processes resulting in nickel exposure may be hazardous.
- 3) Anticipated potential leakage of potassium and sodium hydroxides is 2-20 mls.
- 4) If the cell is abusively opened the electrodes may react with air and ignite.

SECTION 9: PREPARATION DATE OF MSDS

Prepared by: Gillette Environment, Health and Safety	Phone Number: 781.292.8151	Date: 2/22/2006 Revision: 2 Replaces: NA
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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.