

GILLETE MEDICAL EVALUATION LABORATORIES -- DURACELL SILVER OXIDE BATTERIES --
6135-01-110-9470

===== Product Identification =====

Product ID:DURACELL SILVER OXIDE BATTERIES

MSDS Date:04/13/1999

FSC:6135

NIIN:01-110-9470

Status Code:A

MSDS Number: CLHCB

=== Responsible Party ===

Company Name:GILLETE MEDICAL EVALUATION LABORATORIES

Address:401 PROFESIONAL DRIVE

City:GAITHERSBURG

State:MD

ZIP:20879

Country:US

Info Phone Num:301-590-9781

Emergency Phone Num:301-590-9781

CAGE:UO613

=== Contractor Identification ===

Company Name:DURACELGLOBAL BUSINESS MANAGEMENT GROUP

Address:BERKSHIRE CORPORATE PARK

Box:City:BETHEL

State:CT

ZIP:06801

Country:US

Phone:203-796-4665

CAGE:UO614

Company Name:GILLETE MEDICAL EVALUATION LABORATORIES

Address:401 PROFESIONAL DRIVE

Box:City:GAITHERSBURG

State:MD

ZIP:20879

Country:US

Phone:301-590-9781

CAGE:UO613

===== Composition/Information on Ingredients

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Ingred Name:SILVER OXIDE
CAS:20667-12-3
RTECS #:VW4900000
Minumum % Wt:30.
Maxumum % Wt:40.

Ingred Name:ZINC
CAS:7440-66-6
RTECS #:ZG8600000
Minumum % Wt:12.
Maxumum % Wt:15.
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:POTASSIUM HYDROXIDE (35%)
CAS:1310-58-3
RTECS #:TT2100000
Minumum % Wt:5.
Maxumum % Wt:10.
ACGIH STEL:C2 MG/M3
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:MANGANESE DIOXIDE
CAS:1313-13-9
RTECS #:OP0350000
Minumum % Wt:1.
Maxumum % Wt:5.
OSHA
PEL:C5 MG/M3
ACGIH TLV:5 MG/M3

Ingred Name:MERCURIC OXIDE
CAS:21908-53-2
RTECS #:OW8750000
< Wt:1.
OSHA PEL:SEE TABLE Z-2
ACGIH TLV:0.025 MG/M3

===== Hazards Identification =====

Health Hazards Acute and Chronic:THESE CHEMICALS & METALS ARE CONTAINED IN A SEALED CAN. POTENTIAL FOR EXPOSURE SHOULD NOT EXIST UNLESS THE BATTERY LEAKS, IS EXPOSED TO HIGH TEMPERATURES OR IS MECHANICALLY, PHYSICALLY, OR ELECTRICALL Y ABUSED. CONTAINS CONCENTRATED (~3

5%)

POTASSIUM HYDROXIDE, WHICH IS CAUSTIC. ANTICIPATED POTENTIAL LEAKAGE OF POTASSIUM HYDROXIDE IS 0.05 TO 0.5 ML, DEPENDING ON BATTERY SIZE. LESS THAN 1% MERCURY IS CONTAINED IN THE BATTERY.

Effects of Overexposure: INHALATION-RESPIRATORY (AND EYE) IRRITATION MAY OCCUR IF FUMES ARE RELEASED DUE TO HEAT OR AN ABUNDANCE OF LEAKING BATTERIES. INGESTION-AN INITIAL X-RAY SHOULD BE OBTAINED PROMPTLY TO DETERMINE BATTERY LOCATION. BATTERIES LODGED IN THE ESOPHAGUS SHOULD BE

REMOVED IMMEDIATELY SINCE LEAKAGE, CAUSTIC BURNS & PERFORATION CAN OCCUR AS SOON AS 4-6 HRS AFTER INGESTION. IRRITATION, INCLUDING CAUSTIC BURNS TO THE INTERNAL/EXTERNAL MOUTH AREAS, MAY OCCUR FOLLOWING EXPOSURE TO A LEAKING BATTERY. SKIN-IRRITATION, INCLUDING CAUSTIC BURNS/INJURY, MAY OCCUR FOLLOWING EXPOSURE TO A LEAKING BATTERY. EYE-IRRITATION INCLUDING CAUSTIC BURNS/INJURY.

===== First Aid Measures =====

First Aid:EYES:IF

BATTERY LEAKS & MATERIAL CONTACTS EYES, FLUSH WITH COPIOUS AMOUNTS OF CLEAR, TEPID WATER FOR 30 MINS. CONTACT PHYSICIAN AT ONCE. SKIN:IF BATTERY IS LEAKING, IRRIGATE EXPOSED SKIN WITH COPIOUS AMOUNTS OF CLEAR, TEPID WATER FOR AT LEAST 15 MINS. IF IRRITATION, INJURY OR PAIN PERSISTS, CONSULT A PHYSICIAN. INHALATION:IF BATTERY IS LEAKING, CONTENTS MAY BE IRRITATING TO RESPIRATORY PASSAGES. REMOVE TO FRESH AIR. CONTACT PHYSICIAN IF IRRITATION PERSISTS. INGESTION:CONSULT A PHYSICIAN. REMOVAL FROM ESOPHAGUS BE DONE ENDOSCOPICALLY. RINSE MOUTH & SURROUNDING AREA WITH CLEAR, TEPID WATER FOR 15 MINS.

===== Fire Fighting Measures =====

Extinguishing Media:AS APPROPRIATE FOR SURROUNDING AREA.

Fire Fighting Procedures:USE SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR.

Unusual Fire/Explosion Hazard:BATTERIES MAY BURST AND RELEASE HAZARDOUS DECOMPOSITION PRODUCTS WHEN EXPOSED TO A FIRE SITUATION.

===== Accidental Release Measures =====

Spill Release Procedures:CAUSTIC POTASSIUM HYDROXIDE MAY BE RELEASED FROM LEAKING OR RUPTURED BATTERIES. AVOID EYE OR SKIN CONTACT AND INHALATION OF VAPORS. INCREASE VENTILATION. CLEAN-UP PERSONNEL SHOULD WEAR APPROPRIATE PROTECTIVE GEAR.

===== Handling and Storage =====

Handling and Storage Precautions:STORE AT ROOM TEMPERATURE. AVOID MECHANICAL OR ELECTRICAL ABUSE. DO NOT

SHORT OR INSTALL

INCORRECTLY. BATTERIES MAY EXPLODE, PYROLIZE OR VENT IF DISASSEMBLED, CRUSHED, RECHARGED OR EXPOSED TO HIGH TEM PERATURES. INSTALL BATTERIES IN ACCORDANCE WITH EQUIPMENT INSTRUCTIONS.

Other Precautions:REPLACE ALL BATTERIES AT THE SAME TIME. DO NOT CARRY BATTERIES LOOSE IN POCKET OR BAG. NORMLVAL CLEAN UP: NOT APPLICABLE.

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===== Exposure Controls/Personal Protection =====

Respiratory Protection:NONE UNDER NORMAL USE CONDITIONS.

Ventilation

:GENERAL VENTILATION UNDER NORMAL USE CONDITIONS.

Protective Gloves:USE NEOPRENE, RUBBER OR LATEX-NITRILE GLOVES WHEN HANDLING LEAKING BATTERIES.

Eye Protection:NONE UNDER NORMAL USE CONDITIONS. WEAR SAFETY GLASSES IF BATTERY LEAKING.

Other Protective Equipment:KEEP BATTERIES AWAY FROM SMALL CHILDREN.

Work Hygienic Practices:AVOID EYE OR SKIN CONTACT AND INHALATION OF VAPOR.

Supplemental Safety and Health

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===== Physical/Chemical Properties =====

HCC:Z7

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pppearance and Odor:BUTTON CELLS. CONTENTS DARK IN COLOR.

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===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

CONTENTS INCOMPATIBLE WITH STRONG OXIDIZING AGENTS.

Stability Condition to Avoid:DO NOT HEAT, CRUSH, DISSEMBLE, SHORT CIRCUIT OR RECHARGE.

Hazardous Decomposition Products:THERMAL DEGRADATION MAY PRODUCE HAZARDOUS FUMES OF MERCURY, ZINC, SILVER & MANGANESE; HYDROGEN GAS; CAUSTIC VAPORS OF POTASSIUM HYDROXIDE & OTHER TOXIC BY-PRODUCTS.

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===== Toxicological Information =====

Toxicological Information:OCCUPATIONAL EXPOSURE LIMITS PEL'S, TLV'S, ETC.: 8-HOUR TWAS: SILVER OXIDE (AS AG)-0.01 MG/M3 (OSHA); 0.1 MG/M3 (ACGIH). POTASSIUM HYDROXIDE-2 MG/M3 (CEILING) (ACGIH). MANGANESE DIOXIDE (AS MN)-5 MG/ M3 (CEILING) (OSHA); 0.2 MG/M3 (ACGIH/DURACELL). MERCURIC OXIDE (AS HG)-0.1 MG/M3 (CEILING)(OSHA); 0.025 MG/M3 (ACGIH). THESE LEVELS ARE NOT ANTICIPATED UNDER NORMAL

CONSUMER USE CONDITIONS.

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Ecological Information
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Ecological:ENVIRONMENTAL EFFECTS: RECYCLERS ARE AVAILABLE. IF NOT RECYCLED, THESE BATTERIES SHOULD BE DISPOSED OF AS HAZARDOUS WASTE.

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Disposal Considerations
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Waste Disposal Methods:NO SPECIAL PREACUTIONS ARE REQUIRED DOR SMALL QUANTITIES. LARGE QUANTITIES OF OPEN BATTERIES SHOULD BE TREATED AS HAZARDOUS WASTE. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. D O NOT INCINERATE, SINCE BATTERIES MAY EXPLODE AS EXCESSIVE TEMPERTURES.

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MSDS Transport Information
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Transport Information:DOT HAZARD CLASS-NOT APPLICABLE. DOT SHIPPING NAME-NOT APPLICABLE. PLEASE NOTE: THESE BATTERIES ARE NOT REGULATED BY U.S. DOT OR INTERNATIONAL AGENCIES AS HAZARDOUS MATERIALS OR DANGEROUS GOODS WHEN S HIPPED.

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Regulatory Information
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Federal Regulatory Information:ALL INGREDIENTS LISTED IN TSCA INVENTORY.

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Other Information
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