MATERIAL SAFETY DATA SHEET
WSQ-6 MINIDRIFT PROCELL ALKALINE BATTERY

APPLICABILITY: **12 Sep 95**

This MSDS is applicable only for non-consumer uses of batteries such as when batteries are accumulated, managed or used in large quantities. For consumer uses, adequate hazard warnings are included on both the package and on the battery.

IDENTITY:

Chemical Name: Alkaline Manganese Dioxide Cell
Common Name: Procell Alkaline Battery

MANUFACTURER:

Duracell Inc.
Berkshire Corporate Park
Bethel, CT 06801 USA
203-796-4000

EMERGENCY TELEPHONE NUMBER:

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INGREDIENTS / IDENTITY INFORMATION:

Chemical/ Common Names	OSHA PEL	ACGIH TLV	Other Limits	% By Weight Approximate
Potassium Hydroxide (KOH)	2 mg/m^3 (C)	2 mg/m^3 (C)	------	8
Manganese Dioxide (MnO_2)	5 mg/m^3 (C)	5 mg/m^3 (C)**	**	37
Zinc (Zn)	15 mg/m^3	10 mg/m^3	------	15
Water (H_20)	-----	-----	------	11
Carbon (C)	3.5 mg/m^3	3.5 mg/m^3	------	4
Steel	10 mg/m^3	10 mg/m^3	------	18
Brass	10 mg/m^3	10 mg/m^3	------	2
Plastic	-----	-----	------	4
Paper	-----	-----	------	1

Note: These batteries do NOT contain any intentionally added mercury. Any mercury present would be in trace quantities as a contaminant.

****** Duracell Inc has set an integral permissible exposure limit (PEL) of 0.5 mg/m^3. The ACGIH has proposed a TLV^R of 0.2 mg/m^3.

PHYSICAL/CHEMICAL CHARACTERISTICS:

Boiling Point (C):	KOH: 1320, MnO_2: N/A, Zn: 907
Vapor Pressure (mm Hg):	KOH & MnO_2: N/A, Zn: 1 mm @ 487C
Vapor Density (Air=1):	N/A
Solubility in Water:	KOH: 50%, MnO_2, Zn: 0%
Specific Gravity (H_20=1):	KOH: 2.0, MnO_2: 5.0, Zn: 7.14
Melting Point (C):	KOH: 360, MnO_2: 535, Zn: 420
Evaporation Rate (Butyl Acetate=1):	N/A
Appearance & Color:	KOH: Clear Liquid, MnO_2: Black Powder, Zn: Gray Powder

FIRE AND EXPLOSION HAZARD:

Flash Point (Method Used): N/A Extinguishing Media: N/A
Flammable Limits (LEL & UEL): N/A

Special Fire Fighting Procedures: Fire fighters should use self-contained breathing apparatus when cells are involved in a fire.

REACTIVITY DATA:

Stability: Stable.

Conditions to Avoid: DO NOT heat, disassemble, or recharge.

Hazardous Decomposition or By-products: When heated, cells may emit vapors of caustic Potassium Hydroxide (KOH).

Hazardous Polymerization: WILL NOT occur.

HEALTH HAZARD DATA: These Chemicals and metals are contained in a sealed can. Potential for exposure should not exist unless the battery leaks, is exposed to high temperature, is accidentally swallowed or is mechanically, physically, or electrically abused.

Routes of Entry: Inhalation: Yes, Skin: Yes, Ingestion: Yes

Acute/Chronic Health Hazards: The most likely risk is acute exposure when a cell leaks. Potassium Hydroxide (KOH) is caustic and skin contact can cause burns. Eye contact with Potassium Hydroxide (KOH) may cause permanent eye injury. Potential does not exist for chronic exposure.

Carcinogenicity: NTP- No, IARC Monograph- No, OSHA Regulated- No

Signs/Symptoms of Exposure: Skin and eye contact with Potassium Hydroxide (KOH) may cause chemical burns.

Emergency and First Aid Procedures: If leakage from a cell contacts the skin, flush immediately with water. For eye contact, flush with copious amounts of water for 15 minutes and see a physician at once. If vapor is inhaled, remove to fresh air.

PRECAUTIONS FOR SAFE HANDLING AND USE:

Steps to be Taken in Case Material is Released or Spilled: Avoid skin and eye contact. Do not inhale vapors.

Waste Disposal Method: Spent (or used) batteries should be disposed of in small quantities with normal trash. Duracell does not recommend that spent batteries be accumulated; however, if spent batteries are accumulated, quantities of five (5) gallons or more should be disposed of in a secure landfill. In addition, leaking cells (regardless of the quantity) should be disposed of in a secure landfill. Batteries should not be incinerated since cells may explode at excessive temperatures. Disposal should be in accordance with all applicable federal, state and local regulations.

Precautions to be Taken in Handling and Storage: Avoid mechanical or electrical abuse. Use neoprene, rubber or latex-nitrile gloves when handling leakers. Store at room temperature.

Other Precautions: Do not attempt to recharge. Install cells in accordance with equipment instructions. Do not dispose of in fire. Replace all batteries in equipment at the same time. Do not mix battery systems such as alkaline and zinc carbon in the same equipment. Do not carry batteries loose in pocket or bag.

CONTROL MEASURES:

Respiratory Protection: None under normal conditions.

Ventilation: Subsequent to a fire provide as much ventilation as possible.

Protective Gloves: use neoprene, rubber or latex-nitrile gloves when handling leakers.

Eye Protection: Wear safety glasses when handling leakers.

Other Protective Clothing or Equipment: None.

ABBREVIATIONS:

ACGIH	American Council of Government Industrial Hygienists
IARC	International Agency for Research of Cancer
OSHA	Occupational Safety and Health Administration (U.S.)
NTP	National Toxicology Program (U.S.)
PEL	Permissible Exposure Limit
TLV	Threshold Limit Values

Note: This document complies with 29 CFR 1910.1200 for an OSHA Hazard Communication Sheet.