

# P&G Product Safety Data Sheet (PSDS)

## US Office

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### SECTION I - PRODUCT IDENTIFICATION



Representative Product Image/  
 Packaging

The battery products referenced in this PSDS document are consumer products. Under OSHA regulations, batteries are considered “articles” and are not subject to the OSHA Hazard Communication Standard MSDS/SDS requirements which apply for “hazardous chemicals in the workplace.” Additionally, batteries are considered “articles” under the Global Harmonized System and are exempted from the GHS labeling and SDS classification criteria. This PSDS document is provided as service in response to requests for information on battery use, safety and regulatory compliance.

<b>Identity:</b> Alkaline Batteries		<b>Description:</b> Consumer Product
<b>Duracell® Sub-Brands:</b> COPPERTOP®, ULTRA		
Duracell Designation	Size	Nominal Voltage
MN/MX2400	AAA	1.5V
MN/MX1500	AA	1.5V
MN1400 / MX1400	C	1.5V
MN1300 / MX1300	D	1.5V
MN1604	9V	9V
MN2500 / MX2500	AAAA	1.5 V
Other alkaline designations covered by this PSDS : 7K67, MN1203, MN908, MN918, MN9100		
Consumer Relations 1-800-551-2355 (9 :00 AM – 5 :00 PM EST)		

### SECTION II - HAZARDS IDENTIFICATION

**CAUTION:** Batteries may explode or leak, and cause burn injury, if recharged, disposed of in fire, mixed with a different battery type, inserted backwards or disassembled. Replace all used batteries at the same time. Do not carry batteries loose in your pocket or purse. Do not remove the battery label. Keep small batteries (i.e., AAA) away from children. If swallowed, consult a physician at once. **For information on treatment, call (202) 625-3333 collect.**

### SECTION III - COMPOSITION AND INGREDIENTS

The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused. Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200. and/or WHMIS under the HPA:

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Composition Range</u>	<u>LD50/LC50</u>	<u>Exposure Limits</u>
Manganese Dioxide	1313-13-9	35-40%	LD50 oral rat >3478 mg/kg	5 mg/m3 Ceiling OSHA PEL 0.2 mg/m3 TWA ACGIH TLV
Zinc	7440-66-6	10-25%		None established for zinc metal
Potassium Hydroxide	1310-58-3	5-10%	LD50 oral rat 273 mg/kg	2 mg/m3 Ceiling ACGIH TLV
Graphite (natural or synthetic)	7782-42-5; 7440-44-0	1-5%		Natural: 15 mppcf TWA OSHA PEL 2 mg/m3 TWA (respirable dust) ACGIH TLV; Synthetic: 5 mg/m3 TWA (respirable dust), 15 mg/m3 TWA (total dust) OSHA PEL 2 mg/m3

### SECTION IV – FIRST AID INFORMATION

Damaged battery will release concentrated potassium hydroxide, which is caustic.

**Ingestion:** Do not induce vomiting. Seek medical attention immediately. **CALL NATIONAL BATTERY INGESTION HOTLINE at (202)-625-3333 collect, day or night.**

**Eye Contact:** Immediately flush eyes thoroughly with water for at least 15 minutes. Seek medical attention if irritation persists.

**Skin Contact:** Remove contaminated clothing and wash skin with soap and water. If irritation persists, seek medical attention.

**Inhalation:** Move to fresh air. If irritation persists, seek medical attention.

### SECTION V - FIRE FIGHTING INFORMATION

**Hazardous Combustion Products:** Thermal degradation may produce hazardous fumes of zinc and manganese; hydrogen gas, caustic vapors of potassium hydroxide and other toxic by-products.

**Extinguishing Media:** Use any extinguishing media that is appropriate for the surrounding area.

**Protection of Firefighters:**

Specific Hazards Arising from the Material: Batteries may burst and release hazardous decomposition products when exposed to a fire situation.

Protective Equipment and Precautions for Firefighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

### SECTION VI - ACCIDENTAL RELEASE MEASURES

Notify safety personnel of large spills. Caustic potassium hydroxide may be released from leaking or ruptured batteries. Clean-up personnel should wear appropriate clothing to avoid eye and skin contact and inhalation of vapors and fumes. Ventilate area. Carefully collect batteries and place in an appropriate container for disposal.

### SECTION VII – HANDLING AND STORAGE

**Precautions To Be Taken in Handling:** Avoid mechanical or electrical abuse. DO NOT short circuit or install incorrectly. Batteries may rupture or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries in accordance with equipment instructions.

**Precautions To Be Taken in Storage:** Store batteries in a dry place at normal room temperature. Do not refrigerate – this will not make them last longer.

#### SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

NOT APPLICABLE – Finished consumer product

#### SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

**Appearance (color, physical form, shape):** Finished consumer product – cylindrical battery with Duracell® label

**Volatile Organic Compound (VOC):** Not applicable - Product not regulated for VOC Content at State or Federal level

#### SECTION X - STABILITY AND REACTIVITY

Finished consumer product – stable under normal conditions of use. Contents are incompatible with strong oxidizing agents. Do not heat, crush, disassemble, short circuit or recharge.

#### SECTION XI - TOXICOLOGICAL INFORMATION

This battery product is a finished consumer product. It is classified as an “article” and exempt under the federal OSHA Hazard Communication standard.

**Chronic Effects:** No chronic health effects reported.

**Target Organs:** No target organs reported.

**Carcinogenicity:** This finished consumer product is not carcinogenic.

#### SECTION XII - ECOLOGICAL INFORMATION

No eco-toxicity data are available. This product is not expected to present an environmental hazard. Duracell alkaline batteries do not contain any added mercury, cadmium or lead.

#### SECTION XIII - DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in compliance with federal, state/provincial and local regulations.  
*Non-Household Setting (US Federal):* Alkaline batteries covered by this PSDS, in their original form (finished consumer product), when disposed of as waste, are considered **non-hazardous** waste according to Federal RCRA regulation (40 CFR 261).

*Non-Household Setting (California):* None

*Household Use:* Alkaline batteries can be safely disposed of with normal household waste. Do not accumulate large quantities used batteries for disposal as accumulation could cause batteries to short-circuit. Do not incinerate.

#### SECTION XIV - TRANSPORT INFORMATION

**Alkaline batteries (sometimes referred to as “Dry cell” or “household” batteries) are not listed or regulated as dangerous goods under the IATA Dangerous Goods Regulations, ICAO Technical Instructions, IMDG Code, UN Model Regulations or U.S. hazardous regulations (49CFR).**

However, special regulatory provisions apply that require batteries to be packaged in a manner that prevents the generation of a dangerous quantity of heat and short circuits. Product shipped in its original unopened Duracell packaging is compliant with the following packaging special provisions:

**Ground Transport (US DOT):** 49 CFR172.102 Special Provision 130

**Air Transport (IATA)/ICAO:** Special Provision A123 (53<sup>rd</sup> Edition – 2012)

The words ‘NOT RESTRICTED’ and the ‘Special Provision A123’ must be included on the description of the substance on the Air Waybill, when air waybill is issued.

**Marine/Water Transport (IMDG): NONE**

**For Transportation Emergencies, call:**

**CHEMTREC Emergency Response Hotline  
 1-800-424-9300 (US & Canada)**

**SECTION XV - REGULATORY INFORMATION**

**United States:**

**OSHA:** The finished alkaline battery product is considered an article and not covered by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

**CPSIA 2008:** Alkaline batteries are exempt. See CPSC Exemption Letter posted on P&G web site.

**EPA Mercury Containing and Rechargeable Battery Management Act of 1996:** Compliant

**EPA TSCA:** All intentionally-added components of this product are listed on the US TSCA Inventory.

**EPA SARA 313/302/304/311/312 chemicals:** Manganese compounds 35-40%; Zinc 10-25%

*California:* This product has been evaluated and does not require warning labeling under California Proposition 65.

**State Right-to-Know and CERCLA:** The following ingredients present in the finished product are listed on state right-to-know lists or state worker exposure lists:

Ingredient	CAS #	Level	CERCLA RQ	State				
				IL	MA	NJ	PA	RI
Manganese Dioxide	1313-13-9	35-40%	None	Y	Y	N	Y	Y
Zinc	7440-66-6	10-25%	1000 lbs	Y	Y	Y	Y	N
Potassium Hydroxide	1310-58-3	5-10%	1000 lbs	Y	Y	Y	Y	Y
Graphite	7782-42-5 7440-44-0	1-5%	None	Y	Y	N	Y	Y

**Canada:**

All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and this MSDS contains all information required by the Controlled Products Regulations.

**SECTION XVI - OTHER INFORMATION**

P&G Hazard Rating: Health: 0 4=EXTREME  
 Flammability: 0 3=HIGH  
 Reactivity: 0 2=MODERATE  
 1=SLIGHT  
 0=NOT SIGNIFICANT

Hazard Ratings are supplied for use only in connection with occupational safety and health.

**DISCLAIMER:** This PSDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Procter & Gamble 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. Procter & Gamble assumes no responsibility for injury to the recipient or third persons or for any damage to any property resulting from misuse of the product.



## MATERIAL SAFETY DATA SHEET

1. We would like to inform our customers that these batteries are exempt articles and are not subject to the 29 CFR 1910.1200 OSHA requirements, or to the Canadian WHMIS requirements and the sheets are supplied as a service to you. For other MSDSs and related information, visit: <http://www.rayovac.com/technical/msds.htm>.

### 1. IDENTIFICATION

**PRODUCT NAME:** Alkaline Batteries - "No Mercury" Formula

**SIZES:** All

**EMERGENCY TELEPHONE NUMBER:** 800-424-9300 (24 hr, Chemtrec)

**Environmental Health & Safety Information:** 608-275-2482

**EDITION DATE:** 03/01/2010

**APPROVED BY:** Kevin J. Domack

### 2. INGREDIENTS

INGREDIENT NAME	CAS #	%	TLV*
Manganese Dioxide	1313-13-9	32 - 38	C5.0 mg/m <sup>3</sup> (TWA)
Steel	7439-89-6	19 - 23	--
Zinc	7440-66-6	11 - 16	5 mg/m <sup>3</sup> (ZnO, Fume, TWA)
Potassium Hydroxide	1310-58-3	5 - 9	Solution Not Listed
Graphite	7782-42-5	3 - 5	**15 mppcf
Barium Sulfate	7727-43-7	<5	15 mg/m <sup>3</sup> (TWA)
Water, paper, plastic, other	--	Balance	--

\*Source: OSHA 29 CFR 1910.1000 Table Z-1 3-01-2010 or \*\* Table Z-3

### 3. PHYSICAL DATA

Boiling Point @ 760 mm Hg (°C):	NA
Vapor Pressure (mm Hg @ 25°C):	NA
Vapor Density (Air = 1):	NA
Density (grams/cc):	NA
Percent Volatile by Volume (%):	NA
Evaporation Rate (Butyl Acetate = 1):	NA
Physical State:	NA
Solubility in Water (% by Weight):	NA
pH:	NA
Appearance and Odor:	geometric solid object

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#### 4. FIRE & EXPLOSION HAZARD DATA

FLASH POINT: NA LOWER (LEL): NA

FLAMMABLE LIMITS IN AIR (%): NA UPPER (UEL): NA

EXTINGUISHING MEDIA: Use water, foam or dry powder, as appropriate.

AUTO-IGNITION: NA

SPECIAL FIRE FIGHTING PROCEDURES: As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products (See section 2).

SPECIAL FIRE EXPLOSION HAZARDS: Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

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#### 5. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: NA

EFFECTS OF OVEREXPOSURE: None. (In fire or rupture situation see section 2 and section 4)

EMERGENCY FIRST AID PROCEDURES:

***Skin and Eyes:***

In the event that battery ruptures, flush exposed skin with copious quantities of flowing lukewarm water for a minimum of 15 minutes. Get immediate medical attention for eyes. Wash skin with soap and water.

***Swallowing:*** *If you or your doctor suspects that a battery has been ingested-for assistance in the US call*

*the NATIONAL BATTERY INGESTION HOTLINE any time at (202) 625-3333; in Canada call 416-*

*813-5900.* For more information, visit: <http://www.nema.org/gov/ehs/committees/drybat/>

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#### 6. REACTIVITY DATA

STABLE OR UNSTABLE: Stable

INCOMPATIBILITY (MATERIALS TO AVOID): NA

HAZARDOUS DECOMPOSITION PRODUCTS: NA

DECOMPOSITION TEMPERATURE (0°F): NA

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: Avoid electrical shorting.

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## 7. SPILL OR LEAK PROCEDURES

PROCEDURES TO CONTAIN AND CLEAN UP LEAKS OR SPILLS: In the event of a battery rupture, prevent skin contact and collect all released material in a plastic lined metal container.

REPORTING PROCEDURE: Report all spills in accordance with Federal, State and Local reporting requirements.

WASTE DISPOSAL METHOD: These batteries can be land filled if all other Federal, State and Local regulations are complied with. For additional information on disposal or recycling options, visit: <http://www.nema.org/gov/ehs/committees/drybat/>

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## 8. PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE): NA

VENTILATION:

Local Exhaust:	NA
Mechanical (General):	NA
Special:	NA
Other:	NA

PROTECTIVE GLOVES: NA

EYE PROTECTION: NA

OTHER PROTECTIVE CLOTHING: NA

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## 9. SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Store in a dry place. Storing unpackaged cells together could result in cell shorting and heat build-up.

TRANSPORTATION-SHIPPING: Alkaline Batteries are considered dry-cell batteries and they are non-dangerous goods for transportation.

USDOT – See Special Provision 130

IMDG/Ocean – Not listed

ICAO/Air – See Special Provision A123. This special provision also states to put the words “not restricted” and “special provision A123” on the air waybill when an air waybill is issued.

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## 10. SARA 313

Notification is not required because these products are article(s) that do not release a covered toxic chemical under the normal conditions of processing or use.

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NOTICE: The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Rayovac Corporation makes no warranty expressed or implied.