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ACTIO MSDS ID: 10371

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SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION (N/A)

Product Name: **Eveready / Energizer Battery**

Manufacturer Name: Energizer Battery Manufacturing, Inc.

Address: 25225 Detroit Rd.
Westlake, OH 44145

Business Phone: 800−383−7323 (USA / CANADA)

Revision Date: February 2009

Trade Names: ENERGIZER, ENERGIZER e 2, INDUSTRIAL ZMA, HERCULES, EVEREADY, WONDER

CHEMICAL SYSTEM: Alkaline Manganese Dioxide−Zinc

Designed for Recharge: No

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Alkaline Batteries

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SECTION 2 : COMPOSITION, INFORMATION ON INGREDIENTS : (N/A)

Ingredient Name	*CAS#*	*Ingredient Percent*
Graphite	7782−42−5	2−6% by Weight
OSHA PEL TWA: 15 mg/m3(total dust) 5 mg/m3(respirable fraction) ACGIH TLV TWA: 2 mg/m3 (respirable fraction) EC Index Number: 1		
Manganese Dioxide	1313−13−9	30−45% by Weight
OSHA STEL/Ceiling: 5 mg/m3 Ceiling (as Mn) ACGIH TLV TWA: 0.2 mg/m3 TWA (as Mn) EC Index Number: 1		
Potassium Hydroxide	1310−58−3	4−8% by Weight
OSHA PEL TWA: None established ACGIH STEL/Ceiling: 2 mg/m3 Ceiling EC Index Number: 1		
Zinc	7440−66−6	12−25% by Weight
EC Index Number: 1 Other Exposure Guidelines: PEL (OSHA) 15 mg/m3 PNOR*(total dust) 5 mg/m3 PNOR* (respirable fraction) TLV (ACGIH) 10 mg/m3 TWA PNOC** (inhalable particulate)		

	3 mg/m3 TWA PNOC** (respirable particulate)	
Steel		18−22% by Weight
OSHA PEL TWA: ACGIH TLV TWA: Hazardous Paragraph: EC Index Number:	None established None established Non−Hazardous Components 1 (iron CAS## 7439−89−6)	
Water, Paper, Plastic and Other		Balance by Weight
OSHA PEL TWA: ACGIH TLV TWA: Hazardous Paragraph: EC Index Number:	None established None established Non−Hazardous Components 1	

* PNOR: Particulates not otherwise regulated
**PNOC: Particulates not otherwise classified

IMPORTANT NOTE: The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

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SECTION 3 : HAZARDS IDENTIFICATION : (N/A)

Under normal conditions of use, the battery is hermetically sealed.

Applies to All Ingredients :

Potential Health Effects:

Eye Contact:	Contents of an open battery can cause severe irritation and chemical burns.
Skin Contact:	Contents of an open battery can cause skin irritation and/or chemical burns.
Inhalation:	Contents of an open battery can cause respiratory irritation.
Ingestion:	Swallowing a battery can be harmful. Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract.

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SECTION 4 : FIRST AID MEASURES : (N/A)

Eye Contact:	Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.
Skin Contact:	Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention.
Inhalation:	Provide fresh air and seek medical attention.
Ingestion:	Do not induce vomiting or give food or drink. Seek medical attention immediately. CALL NATIONAL BATTERY INGESTION HOTLINE for advice and follow−up (202−625−3333) collect day or night.

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SECTION 5 : FIRE FIGHTING MEASURES : (N/A)

Fire Fighting Instructions:	In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.
Protective Equipment:	Fire fighters should wear self−contained breathing apparatus.

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SECTION 6 : ACCIDENTAL RELEASE MEASURES : (N/A)

Leak Response:	To cleanup leaking batteries: Ventilation Requirements: Room ventilation may be required in areas where there are open or leaking

batteries.

Personal Precautions:	Eye Protection: Wear safety glasses with side shields if handling an open or leaking battery. Gloves: Use neoprene or natural rubber gloves if handling an open or leaking battery. Battery materials should be collected in a leak−proof container.

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SECTION 7 : HANDLING and STORAGE : (N/A)

Handling:	Accidental short circuit for a few seconds will not seriously affect the battery. Prolonged short circuit will cause the battery to lose energy, and can cause the safety release vent to open. Sources of short circuits include jumbled batteries in bulk containers, metal jewelry, metal covered tables or metal belts used for assembly of batteries into devices. If soldering or welding to the battery is required, consult your Energizer Battery Manufacturing, Inc. representative for proper precautions to prevent seal damage or short circuit. Charging: This battery is manufactured in a charged state. It is not designed for recharging. Recharging can cause battery leakage or, in some cases, high pressure rupture. Inadvertent charging can occur if a battery is installed backwards. Labeling: If the Eveready / Energizer Battery label or package warnings are not visible, it is important to provide a package and/or device label stating: WARNING: do not install backwards, charge, put in fire, or mix with other battery types. May explode or leak causing injury. Replace all batteries at the same time. Where accidental ingestion of small batteries is possible, the label should include: Keep away from small children. If swallowed, promptly see doctor; have doctor phone (202) 625−3333 collect.
Storage:	Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life. Mechanical Containment: If potting or sealing the battery in an airtight or watertight container is required, consult your Energizer Battery Manufacturing, Inc. representative for precautionary suggestions. Batteries normally evolve hydrogen which, when combined with oxygen from the air, can produce a combustible or explosive mixture unless vented. If such a mixture is present, short circuits, high temperature, or static sparks can cause an ignition. Do not obstruct safety release vents on batteries. Encapsulation (potting) of batteries will not allow cell venting and can cause high pressure rupture.

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SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION : (N/A)

Ventilation System:	Not necessary under normal conditions.
Hand Protection Description:	Gloves: Not necessary under normal conditions.
Eye/Face Protection:	Not necessary under normal conditions.
Respiratory Protection:	Not necessary under normal conditions.

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SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES : (N/A)

Physical State/Appearance:	Solid object
Odor:	No odor
Physical State:	Solid
pH:	Not applicable for an Article
Vapor Pressure:	(mm Hg @ 25 deg C): Not applicable for an Article
Vapor Density:	(Air = 1): Not applicable for an Article
Boiling Point:	@ 760 mm Hg (deg C): Not applicable for an Article
Solubility:	in Water (% by weight): Not applicable for an Article
Density:	(g/cm3) 2.0 – 3.0
Evaporation Point:	(Butyl Acetate = 1): Not applicable for an Article
Percent Volatile:	by Volume (%): Not applicable for an Article

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SECTION 10 : STABILITY and REACTIVITY : (N/A)

Reactivity:	Alkaline batteries do not meet any of the criteria established in 40 CFR 261.2 for reactivity.

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SECTION 11 : TOXICOLOGICAL INFORMATION : (N/A)

Toxicological Paragraph: Alkaline batteries are not hazardous waste. Under normal conditions of use, alkaline batteries are non−toxic.

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SECTION 12 : ECOLOGICAL INFORMATION : (N/A)

Ecological Paragraph: Issues such as ecotoxicity, persistence and bioaccumulation are not applicable for articles.

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SECTION 13 : DISPOSAL CONSIDERATIONS : (N/A)

Waste Disposal: Dispose of in accordance with all applicable federal, state and local regulations. Appropriate disposal technologies include incineration and land filling.

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SECTION 14 : TRANSPORT INFORMATION : (N/A)

Special Shipping Information: In general, all batteries in all forms of transportation (ground, air, or ocean) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in “strong outer packaging” that prevents spillage of contents. All original packaging for Energizer alkaline batteries has been designed to be compliant with these regulatory concerns.

Alkaline batteries (sometimes referred to as “Dry cell” batteries) are not listed as dangerous goods under the IATA Dangerous Goods Regulations, ICAO Technical Instructions and the U.S. hazardous materials regulations (49 CFR). These batteries are not subject to the dangerous goods regulations provided they meet the requirements contained in the following special provisions. Special Provision A123 in the IATA Dangerous Goods Regulations and ICAO Technical Instructions and Special Provision 130 in 49 CFR 172.102 of the U.S. hazardous materials regulations require alkaline batteries are packed in such a way to prevent short circuits or generating a dangerous quantity of heat. In addition, the IATA Dangerous Goods Regulations and ICAO Technical Instructions require the words “not restricted” and the Special Provision number A123 be provided on the air waybill, when an air waybill is issued.

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SECTION 15 : REGULATORY INFORMATION : (N/A)

Applies to all ingredients:

SARA: SARA/TITLE III − As an article, this battery and its contents are not subject to the requirements of the Emergency Planning and Community Right−To−Know Act.

OSHA 29 CFR 1200: As defined in OSHA Hazard Communication Standard, Section 1910.1200 (c)

Regulatory Paragraph: Batteries marketed by Energizer Battery Manufacturing, Inc. are not classified as dangerous goods by the US Department of Transportation or the major international regulatory bodies and are therefore not regulated.

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SECTION 16 : ADDITIONAL INFORMATION : (N/A)

MSDS Revision Date: February 2009

Disclaimer:

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Other Information: None.

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