**PRODUCT SAFETY DATA SHEET**

**Product Name:** Energizer Battery  
**Trade Name:** Energizer  
**Volts:** 1.5  
**Chemical System:** Silver Oxide-Zinc (0Hg)  
**Designed for Recharge:** No

### SECTION 1 - MANUFACTURER INFORMATION

Manufactured for:  
Energizer Australia Pty. Ltd.  
1 Figtree Drive  
Sydney Olympic Park  
Sydney NSW 2127  
Australia

For Information:  
1800 810 310 (Australia) / support@energizerbatteries.com.au  
Date Prepared: September, 2015

### SECTION 2 – HAZARDS IDENTIFICATION

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

**Ingestion:** Swallowing a battery can be harmful. Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract.

**Inhalation:** Contents of an open battery can cause respiratory irritation.

**Skin Contact:** Contents of an open battery can cause skin irritation and/or chemical burns.

**Eye Contact:** Contents of an open battery can cause severe irritation and chemical burns.

### SECTION 3 - INGREDIENTS

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

<table>
<thead>
<tr>
<th>MATERIAL OR INGREDIENT</th>
<th>PEL (OSHA)</th>
<th>TLV (ACGIH)</th>
<th>%/wt.</th>
</tr>
</thead>
</table>
| Graphite               | 15 mg/m³ TWA (total dust)  
(CAS# 7782-42-5) | 2 mg/m³ TWA (respirable fraction) | 0-3 |
| Manganese Dioxide      | 5 mg/m³ Ceiling (as Mn)  
(CAS# 1313-13-9) | 0.2 mg/m³ TWA (as Mn) | 0 - 20 |
| Potassium Hydroxide    | None established | 2 mg/m³ Ceiling | 0 - 7 |
| Silver Oxide           | 0.01 mg/m³ TWA (as Ag)  
(CAS# 20667-12-3) | 0.1 mg/m³ TWA (as Ag) | 10 - 35 |
| Sodium Hydroxide       | 2 mg/m³ TWA            | 2 mg/m³ Ceiling | 0-7 |
| Zinc                   | 15 mg/m³ TWA PNOR*  
(CAS# 7440-66-6)  
(total dust) | 10 mg/m³ TWA PNOC** (respirable fraction) | 6 - 14 |
|                        | 5 mg/m³ TWA PNOR*  
(respirable fraction) | 3 mg/m³ TWA PNOC** (respirable particulate) | 10-30 |

Non-Hazardous Components

Steel  
(CAS# 7439-89-6)  
Water, Paper, Plastic and Other

None established | None established | None established | Balance

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

### SECTION 4 – FIRST AID MEASURES

**Ingestion:** Do not induce vomiting or give food or drink. Seek medical attention immediately. Call The Poisons Information Centre for advice and follow-up (13 11 26).

**Inhalation:** Provide fresh air and seek medical attention.

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**Skin Contact:** Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention.

**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.

### SECTION 5 - FIRE FIGHTING MEASURES

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.

Fire fighters should wear self-contained breathing apparatus.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

To cleanup leaking batteries:

**Ventilation Requirements:** Room ventilation may be required in areas where there are open or leaking batteries.

**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.

### SECTION 7 - HANDLING AND STORAGE

**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.

**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.**

Keep away from small children. If swallowed, promptly see doctor; have doctor phone (202) 625-3333 collect.

### SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation Requirements:** Not necessary under normal conditions.

**Respiratory Protection:** Not necessary under normal conditions.

**Eye Protection:** Not necessary under normal conditions.

**Gloves:** Not necessary under normal conditions.
SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point @ 760 mm Hg (°C)</td>
<td>Not applicable for an Article</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg @ 25°C)</td>
<td>Not applicable for an Article</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>Not applicable for an Article</td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td>3.0 – 4.2</td>
</tr>
<tr>
<td>Percent Volatile by Volume (%)</td>
<td>Not applicable for an Article</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>Not applicable for an Article</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Solubility in Water (% by weight)</td>
<td>Not applicable for an Article</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable for an Article</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Solid object / no odor</td>
</tr>
</tbody>
</table>

SECTION 10 – STABILITY AND REACTIVITY

Silver oxide batteries do not meet any of the criteria established in 40 CFR 261.2 for reactivity.

SECTION 11 – TOXICOLOGICAL INFORMATION

Silver oxide batteries are not hazardous waste. Under normal conditions of use, silver oxide batteries are non-toxic.

SECTION 12 – ECOLOGICAL INFORMATION

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

SECTION 13 – DISPOSAL CONSIDERATIONS

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

SECTION 14 – TRANSPORT 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.

Silver oxide batteries (sometimes referred to as “Dry cell” batteries) are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, the IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, 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.

<table>
<thead>
<tr>
<th>Regulatory Body</th>
<th>Special Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>Not regulated</td>
</tr>
<tr>
<td>IMDG</td>
<td>Not regulated</td>
</tr>
<tr>
<td>UN</td>
<td>Not regulated</td>
</tr>
<tr>
<td>US DOT</td>
<td>49 CFR 172.102 Provision 130</td>
</tr>
<tr>
<td>IATA</td>
<td>A123</td>
</tr>
<tr>
<td>ICAO</td>
<td>Not regulated</td>
</tr>
</tbody>
</table>

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All Energizer silver oxide batteries are packed in such a way to prevent short circuits or the generation dangerous quantities of heat and meet the special provisions listed above. 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.

**SECTION 15 - REGULATORY INFORMATION**

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.

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.

**SECTION 16 - OTHER INFORMATION**

None.