SAFETY DATA SHEETS

This SDS packet was issued with item:

070152181

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

070151936 070151969 070151977 070152009 070152066 070152074 070152082 070152116 070152124 070152132 070152140 070152157 070152165 070152173 070152199 070152223



Page 1 of 4 Alkaline Batteries January 2013

PRODUCT SAFETY DATA SHEET

PRODUCT NAME: Eveready / Energizer Battery

Type No.:

Volts:

TRADE NAMES: ENERGIZER, ENERGIZER e2, INDUSTRIAL ZMA, HERCULES.

EVEREADY, WONDER

Approximate Weight:

CHEMICAL SYSTEM: Alkaline Manganese Dioxide-Zinc

Designed for Recharge: No

SECTION 1 - MANUFACTURER INFORMATION

Energizer Battery Manufacturing, Inc.

25225 Detroit Rd. Westlake, OH 44145 Telephone Number for Information: 800-383-7323 (USA / CANADA)

Date Prepared: January 2013

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.

| MATERIAL OR INGREDIENT | PEL (OSHA) | TLV (ACGIH) | %/wt. |
|---|---|--|------------------|
| Graphite (CAS# 7782-42-5) | 15 mg/m³ TWA (total dust) 5 mg/m³ TWA (respirable fraction) | 2 mg/m³ TWA (respirable fraction) | 2-6 |
| Manganese Dioxide (CAS# 1313-13-9) | 5 mg/m³ Ceiling (as Mn) | 5 mg/m³ Ceiling (as Mn) 0.2 mg/m³ TWA (as Mn) | |
| Potassium Hydroxide (CAS# 1310-58-3) | None established 2 mg/m³ Ceiling | | 4-8 |
| Zinc (CAS# 7440-66-6) | 15 mg/m³ TWA PNOR* (total dust) 5 mg/m³ TWA PNOR* (respirable fraction) | 10 mg/m ³ TWA PNOC** (inhalable particulate) 3 mg/m ³ TWA PNOC** (respirable particulate) | 12-25 |
| Non-Hazardous Components Steel (iron CAS# 7439-89-6) Water, Paper, Plastic and Other | None established None established | None established None established | 18-22 Balance |

^{*} PNOR: Particulates not otherwise regulated

^{**}PNOC: Particulates not otherwise classified



Page 2 of 4 Alkaline Batteries January 2013

SECTION 4 - FIRST AID MEASURES

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.

Inhalation: Provide fresh air and 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.

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.**

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.



Page 3 of 4 Alkaline Batteries January 2013

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

| Boiling Point @ 760 mm Hg (°C) | Not applicable for an Article | |
|--------------------------------------|-------------------------------|--|
| Vapor Pressure (mm Hg @ 25°C) | Not applicable for an Article | |
| Vapor Density (Air = 1) | Not applicable for an Article | |
| Density (g/cm³) | 2.0 - 3.0 | |
| Percent Volatile by Volume (%) | Not applicable for an Article | |
| Evaporation Rate (Butyl Acetate = 1) | Not applicable for an Article | |
| Physical State | Solid | |
| Solubility in Water (% by weight) | Not applicable for an Article | |
| рН | Not applicable for an Article | |
| Appearance and Odor | Solid object / no odor | |

SECTION 10 - STABILITY AND REACTIVITY

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

SECTION 11 - TOXICOLOGICAL INFORMATION

Alkaline batteries are not hazardous waste. Under normal conditions of use, alkaline 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.



Page 4 of 4 Alkaline Batteries January 2013

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.

Alkaline 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.

| Regulatory Body | Special Provisions | | |
|-----------------|------------------------------|--|--|
| ADR | Not regulated | | |
| IMDG | Not regulated | | |
| UN | Not regulated | | |
| US DOT | 49 CFR 172.102 Provision 130 | | |
| IATA | A123 | | |
| ICAO | Not regulated | | |

All Energizer alkaline 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.

Energizer has prepared copyrighted Product Safety Datasheets to provide information on the different Eveready/Energizer battery systems. As defined in OSHA Hazard Communication Standard, Section 1910.1200 (c), Eveready/Energizer batteries are manufactured articles, which do not result in exposure to a hazardious chemical under normal conditions of use. The information and recommendations set forth herein are made in good faith, for information only, and are believed to be accurate as of the date of preparation. However, ENERGIZER BATTERY MANUFACTURING, INC., MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.



Page 1 of 4 Alkaline Batteries January 2017

PRODUCT SAFETY DATA SHEET

PRODUCT NAME: Eveready / Energizer Battery

TRADE NAMES: ENERGIZER, ENERGIZER e2, INDUSTRIAL, EVEREADY

CHEMICAL SYSTEM: Alkaline Manganese Dioxide-Zinc Designed for Recharge: No Document Number: 12000-A

Energizer has prepared copyrighted Product Safety Datasheets to provide information on the different Eveready/Energizer battery systems. Batteries are articles as defined under the GHS and exempt from GHS classification criteria (Section 1.3.2.1.1 of the GHS). The information and recommendations set forth herein are made in good faith, for information only, and are believed to be accurate as of the date of preparation. However, ENERGIZER BATTERY MANUFACTURING, INC. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.

SECTION 1 - MANUFACTURER INFORMATION

Energizer Battery Manufacturing, Inc. 25225 Detroit Rd.

Westlake, OH 44145

Telephone Number for Information: 800-383-7323 (USA / CANADA)

Date Prepared: January 2017

SECTION 2 – HAZARDS IDENTIFICATION

GHS classification: N/A

Signal Word: N/A

Hazard Classification: N/A

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.

| MATERIAL OR INGREDIENT | PEL (OSHA) | TLV (ACGIH) | %/wt. |
|---|--|---|-------|
| Graphite (CAS# 7782-42-5) | 15 mg/m³ TWA (total dust) 5 mg/m³ TWA (respirable fraction) | 2 mg/m³ TWA (respirable fraction) | 2-6 |
| Manganese Dioxide (CAS# 1313-13-9) | 5 mg/m ³ Ceiling (as Mn) | 0.2 mg/m³ TWA (as Mn) | 30-45 |
| Potassium Hydroxide (CAS# 1310-58-3) | None established | 2 mg/m³ Ceiling | 4-8 |
| Zinc (CAS# 7440-66-6) | 15 mg/m³ TWA PNOR* (total dust) 5 mg/m³ TWA PNOR* (respirable fraction) | 10 mg/m³ TWA PNOC** (inhalable particulate) 3 mg/m³ TWA PNOC** (respirable particulate) | 12-25 |



Page 2 of 4 Alkaline Batteries January 2017

| Non-Hazardous Components | | | |
|---------------------------------|------------------|------------------|---------|
| Steel | None established | None established | 18-22 |
| (iron CAS# 65997-19-5 | | | |
| Water, Paper, Plastic and Other | None established | None established | Balance |

^{*} PNOR: Particulates not otherwise regulated

SECTION 4 – FIRST AID MEASURES

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Page 3 of 4 Alkaline Batteries January 2017

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

| Appearance (physical state, color, etc.): | Solid object |
|---|-------------------------------|
| Upper Explosive Limits: | Not applicable for an Article |
| Lower Explosive Limits | Not applicable for an Article |
| Odor | No odor |
| Vapor Pressure (mm Hg @ 25°C) | Not applicable for an Article |
| Odor Threshold | No odor |
| Vapor Density (Air = 1) | Not applicable for an Article |
| рН | Not applicable for an Article |
| Density (g/cm³) | 2.0 – 3.0 |
| Melting point/Freezing Point | Not applicable for an Article |
| Solubility in Water (% by weight) | Not applicable for an Article |
| Boiling Point @ 760 mm Hg (°C) | Not applicable for an Article |
| Flash Point | Not applicable for an Article |
| Evaporation Rate (Butyl Acetate = 1) | Not applicable for an Article |
| Flammability | Not applicable for an Article |
| Partition Coefficient | Not applicable for an Article |
| Auto-ignition Temperature | Not applicable for an Article |
| Decomposition Temperature | Not applicable for an Article |
| Viscosity | Not applicable for an Article |
| | |

SECTION 10 – STABILITY AND REACTIVITY

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Page 4 of 4 Alkaline Batteries January 2017

SECTION 11 - TOXICOLOGICAL INFORMATION

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| UN | Not regulated |
| US DOT | 49 CFR 172.102 Provision 130 |
| IATA | A123 |
| ICAO Not regulated | |

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| SECTION | 16 | OTHED | INICODMA | MOLT |
|----------------|------|-------|-----------|-----------|
| SECTION | 10 - | UIHER | INFURIVIA | A I I OIN |

None.