

ARTICLE INFORMATION SHEET

This Article Information Sheet (AIS) provides relevant battery information to retailers, consumers, OEMs and other users requesting a GHS-compliant SDS. Articles, such as batteries, are exempt from GHS SDS classification criteria. The GHS criteria is not designed or intended to be used to classify the physical, health and environmental hazards of an article. Branded consumer batteries are defined as electro-technical devices. The design, safety, manufacture, and qualification of Energizer branded consumer batteries follow ANSI and IEC battery standards.

SECTION 1 - DOCUMENT INFORMATION

Product Name: Energizer Battery

Document Number: 0318-Lith

Chemical System: Lithium Iron Disulfide

Date Prepared: March 2018

Designed for Recharge: No

Valid Until: March 2021


Prepared by: Energizer

SECTION 2 – COMPANY INFORMATION

Energizer Brands, LLC
533 Maryville University Drive
St. Louis, MO 63141

Email for Information:
energizer@custhelp.com
www.energizer.com

SECTION 3 – ARTICLE INFORMATION

| | |
|------------------|---|
| Description | Lithium Iron Disulfide Battery |
| Use | Portable power source |
| Brand | ENERGIZER |
| IEC Designations | FR6 and FR03 |
| Sizes | AAA and AA |
| Image |  |

Article Information Sheet



SECTION 4 – ARTICLE CONSTRUCTION

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. |
|--|--|---|-------------------------------|
| Carbon Black (CAS# 1333-86-4) | 3.5 mg/m ³ TWA | 3.5 mg/m ³ TWA | 0-4 |
| 1,2 Dimethoxyethane (CAS# 110-71-4) | None established | None established | 2-4 |
| 1,3 Dioxolane (CAS# 646-06-0) | None established | 20 ppm TWA | 5-9 |
| Graphite (CAS# 7782-42-5) | 15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable fraction) | 2 mg/m ³ TWA (respirable fraction) | 0-4 |
| Iron Disulfide (CAS# 1309-36-0) | None established | None established | 28-38 |
| Lithium or Lithium Alloy | None established | None established | 6.3-6.6 / AA 5.4-5.5 / AAA |
| Lithium Iodide | None established | None established | 0.3-3 |
| Non-Hazardous Components | | | |
| Steel (iron CAS# 65997-19-5) | None established | None established | 18-22 |
| Plastic and Other | None established | None established | Balance |

* PNOR: Particulates not otherwise regulated

**PNOC: Particulates not otherwise classified

All Energizer Lithium Iron Disulfide have zero added mercury.

Applicable Battery Industry Standards

| | | | |
|--------------------------------|--------------------|---------------------|-------------|
| North America Standards | ANSI C18.3M Part 1 | ANSI C18.3 M Part 2 | ANSI C18.4 |
| International Standards | IEC 60086-1 | IEC 60086-2 | IEC 60086-4 |

SECTION 5 – HEALTH AND SAFETY

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.

The following instructions apply to exposure of internal components.

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

Skin Contact: Contents of an open battery can cause skin irritation.

Eye Contact: Contents of an open battery can cause severe irritation.

SECTION 6 – FIRE HAZARD & FIREFIGHTING

In case of fire where lithium batteries are present, flood area with water or smother with a Class D fire extinguishant appropriate for lithium metal, such as Lith-X. Water may not extinguish burning batteries but will cool the adjacent batteries and control the spread of fire. Burning batteries will burn themselves out. Virtually all fires involving lithium batteries can be controlled by flooding with water. However, the contents of the battery will react with water and form hydrogen gas. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are

Article Information Sheet



recommended. A smothering agent will extinguish burning lithium batteries.

Emergency Responders should wear self-contained breathing apparatus. Burning lithium-iron disulfide batteries produce toxic and corrosive lithium hydroxide fumes and sulfur dioxide gas.

SECTION 7 - HANDLING AND STORAGE

Storage: Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life. In locations that handle large quantities of lithium batteries, such as warehouses, lithium batteries should be isolated from unnecessary combustibles.

Mechanical Containment: If potting or sealing the battery in an airtight or watertight container is required, consult your Energizer Brands, LLC representative for precautionary suggestions. Do not obstruct safety release vents on batteries. Encapsulation 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, generate significant heat 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. Damaging a lithium battery may result in an internal short circuit.

The contents of an open battery, including a vented battery, when exposed to water, may result in a fire and/or explosion. Crushed or damaged batteries may result in a fire.

If soldering or welding to the battery is required, consult your Energizer 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: The label acts as an electrical insulation for the battery can. Damage to the label can increase the potential for short circuit.

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.**

SECTION 8 – DISPOSAL CONSIDERATIONS

Lithium iron disulfide batteries are not hazardous waste per the United States Resource Conservation and Recovery Act (RCRA) - 40 CFR Part 261 Subpart C. Dispose of in accordance with all applicable federal, state and local regulations.

SECTION 9 – 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 lithium batteries are compliant with these regulatory concerns.

Energizer lithium-iron disulfide batteries are exempt from the classification as dangerous goods as they meet the requirements of the special provisions listed below. (Essentially, they are properly packaged and labeled, contain less than 1 gram of lithium and pass the tests defined in UN model regulation section 38.3).




| Regulatory Body | Special Provisions |
|-------------------------------------|----------------------------------|
| ADR | 188, 230, 310, 636, 656 |
| IMDG | 188, 230, 310, 957 |
| UN | UN 3090, UN 3091 |
| US DOT | 422, A54 |
| IATA 59 th Edition, ICAO | Packaging Instructions 968 – 970 |

Energizer is registered with CHEMTEL. In the event of an incident during transport call 1-800-526-4727 (North America) or 1-314-985-1511 (International).

Article Information Sheet

A global lithium label chart is provided below to summarize the current global labeling requirements.

Label Summary Chart

| Shipping Mode | Li content | Net quantity wt. of batteries per package | Battery Type |  |  |  |
|-------------------|---|---|-------------------------|--|---|---|
| AIR | 0.3g to \leq 1g/cell 0.3g to \leq 2g/ battery | \leq 2.5 kg | L91, L92, L522 | YES | YES | YES |
| | \leq 0.3g/cell | \leq 2.5kg | All Li Coin and 2L76 | NO | YES | YES |
| | \leq 0.3g/cell | >2.5kg | All Li Coin and 2L76 | YES | YES | YES |
| Land/ Sea only | All | All | All | NO | YES | YES |

SECTION 10 – REGULATORY INFORMATION

10A Battery

- 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.
- USA EPA Mercury Containing & Rechargeable Battery Management Act of 1996:** No mercury added
- EU Battery Directive 2006/66/EC Amended 2013/56/EU:** Energizer batteries are compliant with all aspects of the Directive

10B General

- CPSIA 2008:** Exempt
- US CPSC FHSA (16 CFR 1500):** Not applicable since batteries are defined as articles
- USA EPA TSCA (40 CFR 707.20):** Not applicable since batteries are defined as articles
- USA EPA RCRA (40 CFR 261):** Classified as non-hazardous waste per ignitable, corrosive, reactive or toxicity testing
- California Prop 65:** No warning required
- DTSC Perchlorate labeling:** No warning required
- EU REACH SVHC:** 1,2 dimethoxyethane (DME) is present above 0.01% w/w

10C Article Definitions

- OSHA Hazard Communication Standard, Section 1910.1200(c)**

SECTION 11 – GHS OTHER INFORMATION

None

Acronym Glossary

ANSI: American National Standards Institute
CPSC: Consumer Product Safety Commission

Article Information Sheet



[CPSIA](#): Consumer Product Safety Improvement Act
[DTSC](#): Department of Toxic Substances Control
[EPA](#): Environmental Protection Agency
[FHSA](#): Federal Hazardous Substances Act
[GHS](#): Globally Harmonized System for Hazard Communication
[IEC](#): International Electrotechnical Commission
[OSHA](#): Occupational Safety and Health Administration
[RCRA](#): Resource Conservation and Recovery Act
[SDS](#): Safety Data Sheet
[SVHC](#): Substances of Very high Concern
[TSCA](#): Toxic Substances Control Act

Energizer has prepared copyrighted Article Information Sheets 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 BRANDS, LLC MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.