

SAFETY DATA SHEET

1. Chemical Product Identification

Product Name: ALKALINE ZINC-MANGANESE DRY BATTERY
Product Types: AA (LR6), AAA (LR03), C (LR14), D (LR20), and 9V (6LR61)
Manufacturer / supplier: ECO Alkalines
Address: 1-282 King Street, Barrie, Ontario, Canada L4N 6L2
Telephone for information: 1 (800) 449-3315 (Monday – Friday, 8:00 am – 5:00 pm, EST)

The battery products referenced in this document are consumer products. Under OSHA regulations, batteries are considered “articles” and are not subject to the OSHA Hazard Communication Standard SDS requirements that 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 document is provided as service in response to requests for information on battery use, safety and regulatory compliance.

2. 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.

The common known rules for handling of chemicals need to be obeyed. These chemicals are contained in a sealed steel can. For consumer use, adequate hazard warnings are printed on both the package and the battery. Potential for exposure should not exist unless the battery leaks, is exposed to high temperatures or is mechanically or electrically abused. Concentrated potassium hydroxide contained is caustic. Anticipated potential leakage of potassium hydroxide is 2-20 ml, depending on battery size. Do not eat and drink batteries.

Physical-Chemical Hazards: This preparation is not classified as dangerous according to the criteria of directive 99/45/EEC.

Hazards to man: If battery leaking, exposure to caustic ingredients may occur. Therefore, may cause sensitization by skin contact.

Hazards to environment: N.A..

3. Composition /Information on ingredients

Chemical Name	LR20 (D)	LR14 (C)	LR6 (AA)	LR03 (AAA)	6LR61 (9V)	CAS NO.
Average Weight	145.0 g	70.0 g	22.8 g	11.4 g	47.0 g	
Zinc	17.4%	16.9%	16.2%	13.9%	15.45%	07440-66-6
Manganese Dioxide	43.09%	41.97%	37.57%	34.31%	36.46%	01313-13-9
Carbon	2.93%	2.65%	3.27%	2.95%	3.29%	7440-44-0
Steel	22.07%	21.07%	20.75%	25.89%	24.80%	12597-69-2
Brass	1.10%	1.43%	2.41%	4.56%	3.64%	12597-71-6
Plastic	1.17%	1.57%	1.71%	1.75%	1.06%	/
Paper	0.625%	0.713%	0.92%	0.96%	1.21%	/
Potassium Hydroxide	3.66%	4.36%	6.3%	5.6%	5.55%	1310-58-3
Water	7.03%	7.50%	9.56%	8.51%	5.24%	7732-18-5
Zinc Dioxide	0.53%	0.50%	0.49%	0.42%	0.45%	1314-13-2
Mercury	0	0	0	0	0	7439-97-6
Cadmium	0	0	0	0	0	7440-43-9
Lead	0	0	0	0	0	7782-42-5
Other	0.39%	0.69%	0.82%	1.15%	2.85%	/

4. First aid Measures

Inhalation: In case of excessive inhalation due to leaking batteries remove to fresh air. Obtain medical advice.

Skin Contact: If exposed to a leaking battery, remove contaminated clothing. Wash exposed areas with plenty of water and soap. If irritation occurs, consult a physician.

Eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Seek medical attention.

Ingestion: If exposed to a leaking battery, rinse mouth and surrounding areas with running water for at least 15 minutes. Give plenty of water to drink. Do not induce vomiting. Obtain medical advice.

5. Fire and Explosion Data

Suitable extinguishing media: Carbon dioxide, foam, dry chemical powder.

Exposure hazards from combustion products: In case of fire, carbon monoxide and other toxic organic substances will be generated. Do not inhale fumes and smoke.

Personal protective equipments: Wear full protective clothing. Use self-contained breathing apparatus.

6. Accidental Release Measures

Personal precautions: Notify safety personnel of large spills. Caustic potassium hydroxide may be released from leaking or ruptured batteries. Avoid eye or skin contact and inhalation of vapours. Increase the ventilation. Wear protective clothing. Keep unprotected persons away.

Environmental precautions: Avoid discharge and penetration into sewage systems, waterways, pits, and cellars.

Methods for cleaning up: Collect spilled material with an inert standard absorbent like sand or silica. Care for well-ventilated conditions. Recycle or dispose of the materials in an appropriate way.

7. Handling and Storage

General handling: Obey the common known rules and precautions for handling with chemicals. Avoid mechanical and electrical abuse. Do not short battery or install incorrectly. Batteries may explode, pyrolyze or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries according to equipment instructions. Do not mix battery systems, such as alkaline and zinc-carbon. Replace all batteries in equipment at the same time. Do not carry batteries loose in pocket or bag. Do not remove battery labels.

Storage: Store product in well-filled, appropriate coated and tightly closed containers avoiding influence of oxygen/air, light and humidity. Store at room temperate.

8. Exposure Controls and Personal Protection

Exposition/Technical measures: Atmospheric vapour concentrations must be minimized by adequate ventilation.

Protection of hands, eyes and skin: None required under normal use conditions. When handling leaking batteries, use neoprene, rubber or nitrile gloves and wear safety glasses to protect hands, eyes and skin.

General safety and hygiene measures: Use only as directed.

9. Physical and Chemical properties

Physical state: Stainless steel top battery

Colour: Contents dark and gray in colour

Odour: N.A.

Freezing point: Not available

Melting point: N.A.

Boiling point: N.A.

Flash point: N.A.

Evaporation rate: N.A.

Flammability: N.A.

Explosion limit: Not available

Ignition temperature: Not available

Decomposition temperature: N.A.

Vapour pressure: Not available

Vapour density: N.A.

Relative density: N.A.

Specific gravity: N.A.

Solubility in water: N.A.

Solubility in other solvents: N.A.

pH value: Not available

Partition coefficient: Not available

Viscosity: Not available

10. Stability and Reactivity Data

Thermal decomposition: Batteries may burst and release hazardous decomposition products when exposed to fire.

Substances to avoid: Strong oxidation agents.

Hazardous reactions: Contents incompatible with strong oxidizing agents.

Hazardous decomposition products: Thermal degradation may produce hazardous fumes of zinc and manganese; hydrogen gas; caustic vapours of potassium hydroxide and other toxic by-products

11. Toxicological Information

Toxicity information is available on the battery ingredients noted in Section 3, but in general, N.A. to intact batteries.

Chronic health effects: N.A.

12. Ecological Information

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

13. Disposal Consideration

Product: Dispose in accordance with appropriate regulations. If in doubt, contact your local government office concerned for information. Do not incinerate, since batteries may explode at excessive temperatures.

Alkaline batteries covered by this SDS, 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).

14. Transport Information

The “dry battery” is non-dangerous goods according to IMO IMDG CODE and meet shipping standards. These batteries are not regulated by international agencies as hazardous materials or dangerous goods when shipped. A shipping name of “zinc-manganese dry battery” may be used on all domestic and international bills of lading.

15. Other Regulatory Information

Symbol: N/A

EC labeling: None

Risk phrases: None

Safety phrases: None

Labeling is not required because alkaline batteries are classified as “articles” under the Dangerous Preparations Directive and as such are exempt from the requirements of the Directive.

16. Other Information

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, Canadian WHMIS requirements or GHS requirements.

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- END OF SDS -