



Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: DURACELL ZINC CHLORIDE / MALLORY SUPER BATTERIES

Product Identification: Zinc Carbon Cells –

Product Use: Energy Source

SDS Date of Preparation: July 1, 2008

Duracell Designations:

Battery Name/Size	Duracell Designation	IEC Designation
9V	SHD16	6F22
AA	SHD15	R6
AAA	SHD24	R03
C	SHD14	R14
D	SHD13	R20
Lantern	4R25	--

Company Identification

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Emergency Phone Number: INFOTRAC 24-Hour Emergency Response Hotline: 1-352-323-3500
(United States of America)

SECTION 2: HAZARDS IDENTIFICATION

Physical Appearance: Cylindrical cell

CAUTION: 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.

EU Classification of Preparation: Not classified as a dangerous preparation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	EINECS Number	Amount	Classification
Manganese Dioxide	1313-13-9	215-202-6	25-42 %	Xn, R20/22
Zinc	7440-66-6	231-175-3	15-25 %	N, R50/53

Zinc Chloride	7646-85-7	231-592-0	5-25 %	C, Xn, N, R22, R34, R50/53
Ammonium Chloride	12125-02-9	235-186-4	0.5-15 %	Xi, Xn, R22, R36
Carbon Black	1333-86-4	215-609-9	1-10 %	None

SECTION 4: FIRST AID MEASURES

General Advice: The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused. Damaged battery will release aqueous zinc chloride (10-30 % solution) and ammonium chloride (1-20% solution), which may cause burns. Anticipated potential leakage of zinc chloride/ammonium chloride is 1 to 5 ml, depending on battery size.

Eye Contact: If battery is leaking and material contacts the eye, flush thoroughly with copious amounts of running water for 30 minutes. Seek immediate medical advice.

Skin Contact: If battery is leaking and material contacts the skin, remove any contaminated clothing and flush exposed skin with copious amounts of running water for at least 15 minutes. If irritation, injury or pain persists, seek medical advice.

Inhaled: If battery is leaking, contents may be irritating to respiratory passages. Move to fresh air. If irritation persists, seek medical advice.

Swallowed: If battery contents are swallowed, do not induce vomiting. If the victim is alert, have them rinse their mouth and the surrounding skin with water for at least 15 minutes. Seek immediate medical attention.

Note to Doctor: This SDS does not include or address the small button cell batteries which can be ingested. The primary toxic ingredients are zinc chloride and ammonium chloride. Anticipated potential leakage volume is 1 to 5 ml, depending on battery size.

SECTION 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards: Batteries may burst and release hazardous decomposition products when exposed to a fire situation.

Extinguishing Media: Use any extinguishing media that is appropriate for the surrounding fire.

Special Fire Fighting Procedures: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Fight fire from a distance or protected area. Cool and use caution when handling fire-exposed containers (containers may rocket or explode in heat of fire).

Hazardous Combustion Products: Thermal degradation may produce hazardous fumes of zinc and manganese; caustic vapors of zinc chloride and ammonium chloride and other toxic by-products.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Notify safety personnel of large spills. Caustic zinc chloride and ammonium chloride may be released from leaking or ruptured batteries. Clean-up personnel should wear appropriate protective clothing to

avoid eye and skin contact and inhalation of vapors or fumes. Increase ventilation. Carefully collect batteries and place in an appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

Avoid mechanical or electrical abuse. DO NOT short circuit or install incorrectly. Batteries may explode, pyrolyze or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries in accordance with equipment instructions. Do not mix battery systems, such as alkaline and zinc carbon, in the same equipment. Replace all batteries in equipment at the same time. Do not carry batteries loose in a pocket or bag.

Storage: Store batteries in a dry place at normal room temperature. Do not refrigerate – this will not make them last longer.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The following occupational exposure limits are provided for informational purposes. No exposure to the battery components should occur during normal consumer use. **Refer to specific country regulations for additional exposure limit information.**

Chemical Name	Exposure Limits
Manganese Dioxide	0,5 mg/m ³ TWA UK WEL 0,5 mg/m ³ TWA (inhalable) DFG MAK 0,2 mg/m ³ VL Belgium 0,2 mg/m ³ TWA Denmark LV
Zinc	None established for zinc metal
Zinc Chloride (as fume)	1 mg/m ³ TWA; 2 mg/m ³ STEL UK WEL 1 mg/m ³ VL, 2 mg/m ³ VCD Belgium 0,5 mg/m ³ TWA Denmark LV
Ammonium Chloride (as fume)	10 mg/m ³ , 20 mg/m ³ STEL UK WEL 10 mg/m ³ VL, 20 mg/m ³ VCD Belgium 10 mg/m ³ TWA Denmark LV
Carbon Black	3,5 mg/m ³ , 7 mg/m ³ STEL UK WEL 3,6 mg/m ³ VL Belgium 3,5 mg/m ³ TWA Denmark LV

Ventilation: No special ventilation is needed for normal use.

Respiratory Protection: None required for normal use.

Skin Protection: None required for normal use. Use neoprene, rubber or nitrile gloves when handling leaking batteries.

Eye Protection: None required for normal use. Wear safety goggles when handling leaking batteries.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Cylindrical battery. Contents dark in color.

Water Solubility: Insoluble

SECTION 10: STABILITY AND REACTIVITY

Stability: This product is stable.

Incompatibility/Conditions to Avoid: Contents are incompatible with strong oxidizing agents. Do not heat, crush, disassemble, short circuit or recharge.

Hazardous Decomposition Products: Thermal decomposition may produce hazardous fumes of zinc and manganese; caustic vapors of zinc chloride and ammonium chloride and other toxic by-products.

Hazardous Polymerization: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused. Damaged battery will release aqueous zinc chloride (10-30% solution) and ammonium chloride (1-20% solution), which may cause burns. Anticipated potential leakage of zinc chloride/ammonium chloride is 1 to 5 ml, depending on battery size.

Eye Contact: Contact with battery contents may cause severe irritation and burns. Eye damage is possible.

Skin Contact: Contact with battery contents may cause severe irritation and burns.

Inhalation: Inhalation of fumes released due to heat or a large number of leaking batteries may cause respiratory and eye irritation.

Ingestion: Swallowing is not anticipated due to battery size. Ingestion of battery contents (from a leaking battery) may cause mouth, throat and intestinal burns and damage.

Acute Toxicity Data:

Manganese Dioxide: LD50 oral rat >3478 mg/kg

Zinc Chloride: LD50 oral rat 350 mg/kg, LCLo inhalation rat 1960 mg/m³

Ammonium Chloride: LD50 oral rat 1650 mg/kg

Chronic Effects: The chemicals in this product are contained in a sealed can and exposure does not occur during normal handling and use. No chronic effects would be expected from handling a leaking battery.

Target Organs: Skin, eyes and respiratory system.

Carcinogenicity: None of the components of this product are listed as carcinogens by the EU Directive on the classification and labeling of substances.

SECTION 12: ECOLOGICAL INFORMATION

No ecotoxicity data is available. This product is not expected to present an environmental hazard.

SECTION 13: DISPOSAL INFORMATION

Disposal should be in accordance with national and local regulations. Do not incinerate for disposal except for in a controlled incinerator.

Duracell zinc chloride batteries are labeled in compliance with the EU Battery Directive 2006/66.

SECTION 14: TRANSPORT INFORMATION

Transportation Information – Products covered by this SDS, in their original form, are considered “dry cell” batteries and are not regulated as “DANGEROUS GOODS” for transportation.

For finished packaged product transported by ground (ADR/RID): – not regulated

For finished packaged product transported by sea (IMDG) – not regulated

For finished packaged product transported by air (IATA): – not regulated

SECTION 15: REGULATORY INFORMATION

EU Classification of Preparation: Not classified as a dangerous preparation.

REACH: These products are manufactured articles and not subject to REACH registration requirements.

EU Labeling: None Required

Labeling is not required because batteries are classified as articles under the both REACH and the Dangerous Preparations Directive and as such are exempt from the requirement for labeling.

SECTION 16: OTHER INFORMATION

P&G Hazard Rating: Health: 0 Fire: 0 Reactivity: 0

EU Classes and Risk Phrases for Reference (See Sections 2 and 3)

C Corrosive

N Dangerous for the Environment

Xi Irritant

Xn Harmful

R20/22 : Harmful by inhalation and if swallowed.

R22 Harmful if swallowed.

R34 Causes burns

R36 Irritating to eyes.

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Data supplied is for use only in connection with occupational safety and health.

DISCLAIMER: This SDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company’s knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.

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