



Material Safety Data Sheet

ZINE-MANGANESE DRY BATTERY
MSDS NO.: AJT120611009E

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: ZINE-MANGANESE DRY BATTERY
Product Code: R03, R6, R14, R20
Product Use: Battery

Supplier Information

Company Name: Ninghai Hengjiu Battery Co., Ltd
Address: Xidian South 158 Road, Xidian Town, Ninghai City, Zhejiang, CHINA, 315613
Tel: 0086-574-65177199
Fax: 0086-574-65177885
Email: hjcell@163.com
Emergency Telephone: 0086-574-65177199

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: Battery
Odor: None

Potential Health Effects:

Eye Contact: No effects are anticipated if broken open, may cause burns.

Skin Contact: No effects are anticipated if broken open, may cause burns.

Skin Absorption: None reported

Target Organs: None reported

Ingestion: No Effects Anticipated If broken open, may cause: burns of the mouth and esophagus

Target Organs: None reported

Inhalation: No effects anticipated if broken open, may cause: respiratory tract irritation

Target Organs: None reported

Medical Conditions Aggravated: None reported

Chronic Effects: No effects anticipated

Cancer / Reproductive Toxicity Information:

This product does NOT contain any OSHA listed carcinogens.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

Additional Cancer / Reproductive Toxicity Information: Not applicable

Toxicologically Synergistic Products: Not applicable



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation: Preparation

Ingredients Name	Content/%	CAS NO.	EC NO.	RISK PHRASES
Manganese Dioxide	30	1313-13-9	215-202-6	Xn,R20/22
Carbon black	2	1333-86-4	215-609-9	-
Zinc	30	7440-66-6	231-175-3	N,R50-53
Zinc chloride	5-10	7646-85-7	231-592-0	C, R34-Xn; R22-N;R50-53
Ammonium chloride	5-10	12125-02-9	235-186-4	Xn; R22-Xi; R36
copper	10	7440-50-8	231-159-6	-
Water, steel, plastic, other additives	Balance	NA	NA	-

Note: See Section 8 of MSDS for exposure limit data for these ingredients. Full text of risk phrases appearing in section 3: see section 16.

This MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with plenty of water for 15 minutes. Remove contaminated clothing.
Call physician immediately.

Ingestion (First Aid): Call physician immediately.

Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flammable Properties: May explode when exposed to heat.

Flash Point: Not applicable

Method: Not applicable

Flammability Limits:

Lower Explosion Limits: NA

Upper Explosion Limits: NA

Autoignition Temperature: NA

Hazardous Combustion Products: May emit acrid smoke and fumes.



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Fire / Explosion Hazards: Heat or put into fire, may leak and explosion.

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Alcohol foam. Carbon dioxide Dry chemical.

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear. Containers can build up pressure if exposed to heat. Evacuate area and fight fire from a safe distance. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

6. ACCIDENTAL RELEASE MEASURES

Containment Technique: Stop spilled material from being released to the environment.

Clean-up Technique: Dispose of material in an E.P.A. approved hazardous waste facility.

Evacuation Procedure: Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: any quantity is spilled. If conditions warrant, increase the size of the evacuation.

Special Instructions (for accidental release): Not applicable

7. HANDLING AND STORAGE

Handling: Maintain general industrial hygiene practices when using this product.

Storage: Store in a cool place.

Flammability Class: Not applicable

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: Not applicable

Skin Protection: Not applicable

Inhalation Protection: Not applicable

Precautionary Measures: Protect from: heat

TLV: Not applicable

PEL: Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Battery

Physical State: Solid



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Molecular Weight:	NA
Odor:	None
pH:	NA
Vapor Pressure:	NA
Vapor Density (air = 1):	NA
Boiling Point:	NA
Melting Point:	NA
Specific Gravity (water = 1):	NA
Evaporation Rate (water = 1):	NA
Volatile Organic Compounds Content:	NA
Partition Coefficient (n-octanol / water):	NA
Solubility:	Insoluble

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Extreme temperatures

Reactivity / Incompatibility: None reported

Hazardous Decomposition: No hazardous decomposition products known.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD₅₀: None reported

LC₅₀: None reported

Dermal Toxicity Data: None reported

Skin and Eye Irritation Data: None reported

Mutation Data: None reported

Reproductive Effects Data: None reported

Ingredient Toxicological Data:

No toxicological data available for the ingredients of this product.

12. ECOLOGICAL INFORMATION

Product Ecological Information:

No ecological data available for this product.

Ingredient Ecological Information:



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No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

Special Instructions (Disposal): Dispose of material in an E.P.A. approved hazardous waste facility.

Empty Containers: Not applicable

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

Proper shipping name: Not regulated

Hazard class: None

Packing group: None

Identification number: None

ADR/RID: This product is not regulated for transportation.

IMDG: This product is not regulated for transportation.

IATA: This product is not regulated for transportation.

Notice to Reader: The above transport information is provided to assist in the proper classification of this product and may not be suitable for all shipping conditions.

15. REGULATORY INFORMATION

European Labeling in Accordance with EC Directives

Hazard Symbols: None

Risk Phrases: This product is not classified according to the EU regulations.

Safety Phrases: -

Inventory Status

Inventory

Status

Europe

One or all components are listed on EINECS

TSCA

The product on this Material Safety Data Sheet is not listed on the Toxic Substances Control Act Inventory. All ingredients used to manufacture this product are listed on the TSCA Inventory

16. OTHER INFORMATION

Risk phrases in section 3:

R20/22: Harmful by inhalation and if swallowed.



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- R22 Harmful if swallowed.
- R34 Causes burns.
- R36 Irritating to eyes.
- R50 Very toxic to aquatic organisms.
- R53 May cause long-term adverse effects in the aquatic environment.

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This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. We make no representation as to completeness or accuracy. In no event we shall be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

* * * END OF MSDS * *