

SAFETY DATA SHEET

Creation Date : January 2008
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Product name Alkaline Manganese Dioxide-Zinc Battery

The batteries referenced herein are exempt articles and are not subject to the OSHA Hazard Communication Standard requirement. This safety data sheet is provided as a service to our customers.

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Identification of the substance/preparation

Product name Alkaline Manganese Dioxide-Zinc Battery
Use of the Substance/Preparation Disposable battery
Company/Undertaking Identification
Supplier Uniross Batteries SAS
Z.I. de la Madeleine
27 rue de la Maison Rouge
F 77185 - LOGNES

Emergency telephone number : +33 (0)1 60 95 00 40

2. COMPOSITION / INFORMATION ON INGREDIENTS

The Alkaline Manganese Dioxide-Zinc battery is hermetically sealed. The ingredients contained within the battery could potentially be hazardous upon release.

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Components	CAS-No.	EC-No.	Weight %	Classification
Graphite	7782-42-5	2319553	2.5-4.0%	R36/37 – S22-26-36
Manganese Dioxide	1313-13-9	2152026	35-40%	Xn – R20/22 – S25
Potassium Hydroxide	1310-58-3	2151813	5.0-6.5%	C – R22-35 – S26-36/37/39-45
Zinc	7440-66-6	2311753	14-16%	-

For the full text of the R and S phrases mentioned in this Section, see Sections 15 & 16.

3. HAZARDS IDENTIFICATION (for Ingredients)

Classification Harmful R20/22, Corrosive R35, Irritant R36/37.

Most important hazards May cause severe burns.

Further information The Alkaline Manganese Dioxide-Zinc cell is a sealed battery which is not hazardous when used according to recommendations. Under normal conditions of use, the integrity of the battery casing and security vent are maintained, the ingredients are not expected to pose a significant risk to man or the environment. On some bad using conditions (reverse polarity, recharge, external short circuit) and in case of a bad functioning, some electrolyte leakage can occur. In these cases, the risk is the caustic nature of electrolyte (potassium hydroxide). The classification above is based on the contents being considered as a preparation in accordance with Directive 1999/45/EC

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4. FIRST AID MEASURES

General advice

Show this safety data sheet to the doctor in attendance.

The Alkaline Manganese Dioxide-Zinc cell is a sealed battery, all ingredients are contained in a sealed can.

The information below refers to exposure to the ingredients (which could happen only if the battery is exposed to high temperature or is mechanically or electrically abused).

Inhalation

Respiratory irritation may occur in case of exposure to fumes or to large quantities of leaking batteries.

Move to fresh air. If symptoms persist, medical attention is required.

Skin contact

Irritation and caustic burns may happen in case of exposure or handling of leaking batteries.

Wash off immediately with plenty of water for at least 15 minutes.

Remove and wash contaminated clothing before re-use. If skin irritation persists, medical attention is required.

Eye contact

Irritation and caustic burns may happen in case of exposure or handling of leaking batteries.

Immediate medical attention is required.

Remove contact lenses. Rinse immediately with plenty of water for at least 15 minutes.

Ingestion

Immediate medical attention is required. Gently wipe or rinse the inside of the mouth with water for at least 15 minutes.

Do not induce vomiting. Do not give food or drink.

Call a physician or Poison Control Centre immediately.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry powder, carbon dioxide (CO₂), sand.

Specific hazards

Risk of receptacle bursting and release of hazardous decomposition products.

Special protective equipment for firefighters

In the event of fire involving large quantities of products, wear self contained breathing apparatus. Wear personal protective equipment.

Hazardous decomposition products

Caustic vapours of Potassium Hydroxide.

6. ACCIDENTAL RELEASE MEASURES

The information below refers to exposure to the ingredients (which could happen only if the battery is exposed to high temperature or is mechanically or electrically abused).

Personal precautions

In case of exposure to internal chemicals, use personal protective equipment.

Avoid contact with skin and eyes.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Pick up and transfer to properly labelled containers.

Dispose of in accordance with local regulations.

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7. HANDLING AND STORAGE

Handling

Technical measures/Precautions

No special technical protective measures required.

Do not solder or weld tabs on the battery Do not short or install incorrectly the battery. Avoid exposure to high temperatures as well as mechanical or electrical abuse. Do not mix battery systems in the same equipment. Replace all batteries in the same equipment at the same time.

Safe handling advice

Avoid contact of internal chemicals with skin and eyes .

Use personal protective equipment.

Storage

Technical measures/Storage conditions

Keep in a dry, cool and well-ventilated place, preferably in the temperature range of +5 to +25°C at 65%(+5%) relative humidity.

Keep away from heat and sources of ignition.

Ensure battery terminals are protected during storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Engineering measures

Not required under normal use.

Personal protective equipment

Not required under normal use.

The information below refers to exposure to the ingredients.

Respiratory protection

Wear a positive-pressure supplied-air respirator with full facepiece.

Hand protection

Neoprene gloves (EN374).

Eye protection

Safety glasses with side-shields conforming to EN166.

Skin and body protection

Boots, apron, protective suit.

Hygiene measures

General industrial hygiene practice.

Environmental exposure controls

The information below refers to exposure to the ingredients.

Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form battery (sealed unit) **Colour** not applicable **Odour** odourless

Important Health Safety and Environmental Information

not applicable

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10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Hazardous polymerisation

Hazardous polymerisation does not occur.

Conditions to avoid

Keep away from heat and sources of ignition.

Materials to avoid

Exposure to moisture.

Hazardous decomposition products

Caustic vapours of potassium hydroxide.

11. TOXICOLOGICAL INFORMATION

The information below refers to exposure to the ingredients.

Local effects

Causes severe burns. Risk of serious damage to eyes. Harmful by inhalation and if swallowed.

Long term toxicity

No data available. Avoid repeated exposure.

Specific effects

None

12. ECOLOGICAL INFORMATION

In normal conditions of use and if the integrity of the battery casing and security vent are maintained, the ingredients are not expected to pose a significant risk to the environment.

Mobility

No data available.

Persistence and degradability

No data available.

Ecotoxicity effects

None

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

Dispose in accordance with local regulations. It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Should not be released into the environment.

Contaminated packaging

Not applicable.

Further information

EWC waste disposal No: 200133 - batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries.

Never incinerate Alkaline Manganese Dioxide-Zinc batteries.

Never dispose Alkaline Manganese Dioxide-Zinc batteries as landfill.

Alkaline Manganese Dioxide-Zinc batteries - which in some countries may not be subject to collection & recycling and/or disposal requirements - do however contain recyclable materials and UNIROSS recommends proper recycling of these batteries whenever possible.

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14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of sea and air transport regulations.

15. REGULATORY INFORMATION

Symbol C – Corrosive
 Xn - Harmful

Text of R phrases mentioned in Section 2 (applicable to battery ingredients)

R22 - Harmful if swallowed.
R20/22 - Harmful by inhalation and if swallowed.
R35 - Causes severe burns
R36/37 – Irritating to eyes and respiratory system

16. OTHER INFORMATION

Text of S -phrases mentioned in Section 2 (applicable to battery ingredients)

S22 – Do not breath dust
S25 – Avoid contact with eyes
S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36 – Wear suitable protective clothing
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately
(show the label where possible).

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
