tecxus™

MATERIAL SAFETY DATA SHEET

LR03 AAA ALKALINE BATTERY 1.5V

Date: 02/01/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LR03 AAA (alkaline maximum) ALKALINE BATTERY 1.5V
Manufacturer: tecxus™
Add: Wentronic GmbH, Pillmannstr. 12, 38112 Braunschweig, Germany
Fax: 0049-531 12172-22
Emergency Phone: 0049-531 12172-0
Hours of Operation: 8:30 am to 17:30 pm Mon. through Fri.

2. Information on Ingredients

Product Nature: LR03 AAA (alkaline maximum) ALKALINE BATTERY 1.5V

Ingredient	Concentration	CAS No.	EC No.
Manganese Dioxide	35.5%	1313-13-9	215-202-6
Zinc	16.0%	7440-66-6	231-175-3
Potassium hydroxide	5.4%	1310-58-3	215-181-3
Graphite	2.8%	7782-42-5	231-955-3

3. Hazards identification

Hazards Identification: The battery is not restricted to IATA DGR according to special provision A123 and is not restricted to IMDG CODE according to special provision 304.
Emergency Overview: Avoid contact and inhalation the internal materials. Emit toxic fumes under fire conditions.

4. First-aid measures

Skin Exposure: If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water.
Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
Inhalation Exposure: If potential for exposure to nickel fumes or dusts occurs, remove immediately to fresh air and seek medical attention.
Oral Exposure: If swallowed, do not induce vomiting. Seek immediate medical attention.

5. Fire-fighting measures

Extinguishing Media: Suitable: Dry chemical, Carbon dioxide and appropriate foam.
Firefighting:

Protective Equipment: Wear self-contained breathing apparatus and protective Clothing to prevent contact with skin and eyes.
Specific hazards: Emit toxic fumes under fire conditions.

6. Accidental release measures

Procedures of personal precautions:
Exercise appropriate precautions to minimize direct contact with skin and eyes.
Methods for cleaning up:
Sweep up with spade, place into a dry, clean, lidded container for disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7. Handling and storage

Handling: Wear appropriate protective clothing and safety gloves. Avoid contact and inhalation the internal materials. Keep away from ignition sources, heat and flame. Incompatibilities: strong oxidizing agents, corrosives and foods. Such batteries must be packed in inner packaging in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. No smoking at working site.
Storage: Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Store in a tightly closed container. Incompatibilities: strong oxidizing agents, corrosives and foods.

8. Exposure control/PPE

Engineering Controls: Use ventilation equipment if available.
Personal Protective Equipment:
Clothing: Wear appropriate protective clothing.
Hand: Safety gloves.
Other Protection: No smoking, drinking and eating at working site. Wash thoroughly after handling.

9. Physical and chemical properties

Appearance:	Yellow and black metal cylinder shell (containing dielectric)		
Odor:	Weak odor		
Melting Point:	>300℃	**PH Value:**	12~13
Solubility:	Partial slightly soluble in water		

10. Stability and Reactivity

Stability: Stable under normal temperatures and pressures.
Materials to Avoid: Strong oxidizing agents, corrosives.
Conditions to Avoid: Avoid exposure to heat and open flame. Do not puncture, crush or incinerate. Prevent short circuits. Prevent movement which could lead to short circuits. Do not attempt to recharge this battery.

Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products: When exposed to extreme heat/fire batteries may rupture leaking corrosive material and/or emit toxic fumes. Burning batteries may emit toxic fumes of zinc oxide and manganese oxide.

11. Toxicological information

Toxicity Data: Not available.
Irritation Data: The internal battery materials may cause irritation to eyes and skin.

12. Ecological information

No data available.

13. Disposal considerations

Appropriate Method of Disposal of substance:
Dispose of in accordance with all applicable federal, state and local regulations.

14. Transport information

IATA: Not restricted to IATA DGR according to special provision A123.
IMO: Not restricted to IMDG CODE according to special provision 304.

15. Regulatory information

Manganese Dioxide Battery is unregulated for purpose of transportation by U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAA), International Air Transport Association (IATA) and the International Maritime Dangerous Goods regulations (IMDG).
The only DOT requirement for shipping these batteries is Special Provision 130 which states:”Batteries, dry, are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat (for example, by the effective insulation of exposed terminals).”
The only requirements for shipping these batteries by ICAO and IATA is Special Provision A123 which states:”An electrical battery or battery powered device having the potential of dangerous evolutions of heat that is not prepared so as to prevent a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or in the case of equipment, by disconnection of the battery and protection of exposed terminals) is forbidden from transportation.”
The International Maritime Dangerous Goods Code(IMDG) regulate them for ocean transportation under Special Provision 304 which says:”Batteries, dry, containing corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to the provisions of this Code provided the batteries are securely packed and protected against short-circuits. Examples of such batteries are: alkaline-manganese, zinc-carbon, and nickel metal hydride and nickel-cadmium batteries”.

The requirements for shipping these batteries, in all modes of transportation, are that they be separated from each other to prevent short-circuits. And to prevent movement that could lead to short-circuits. Products must also be packed in strong packaging that can withstand the rigors normal to transportation.

16. Other information

Other Information

The MSDS is prepared in accordance with ISO 11014-1:1994.
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising from using the above information.