Material Safety Data Sheet

Date of issue 2024-08-19 Versie 1

Section 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE MANUFACTURER

1.1. Product identification

Product code R03

Product name Carbon zinc Battery

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended uses N/A

Restrictions on use N/A

1.3. Details of the supplier of the safety data sheet

Supplier Intronics B.V
P.O. box 123, 3770 AC Barneveld
the Netherlands

For more information, please contact:
Technical support: +31 342 407 050

1.4 Emergency contact:

National Poisons Information Center / University Medical Center Utrecht
PO Box 85500, 3508 GA Utrecht, The Netherlands
+31 88 75 585 61
productnotificatie(at)umcutrecht.nl
http://www.productnotification.nl/

Section 2: HAZARD IDENTIFICATION

Important notes: Use under normal conditions, the battery is hermetically sealed.
Ingestion: Swallowing a battery can be harmful. Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract.

Immediately see doctor:
Inhalation: contents of an open battery can cause respiratory irritation.
Skin Contact: Contents of an open battery can cause skin irritation/ or chemical burns.
Eye Contact: Contents of an open battery can cause severe irritation and chemical burns.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

Weight	Chemical Composition	CAS No.
28	Zinc	7440-66-6
22	Manganese Dioxide	1313-13-9
20	Iron	7439-89-6
15	Water	7732-18-5
8	Carbon	1333-86-4
4	Potassium hydroxide	1310-58-3
Balance	Others	N/A

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Ingestion Do not induce vomiting or give food or drink. Seek medical attention immediately.

Inhalation If potential for exposure to fumes or dusts occurs, remove immediately to fresh air and seek medical attention

Skin contact Remove contaminated clothing and wash with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention

Eye contact Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.

Section 5: FIRE-FIGHTING MEASURES

In case of fire, it is permissible to use any class of extinguishing medium on these batteries on their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.

Section 6: ACCIDENTAL RELEASE OR SPILLAGE

To cleanup leaking batteries:

Ventilation Requirements: Room ventolation may be required in areas where there are open or leaking batteries.

Eye Protection: Wear safety glasses with side shields if handling an open or leaking battery.

Gloves: Use neoprene or natural rubber gloves if handling an open or leaking battery. Battery materials should be collected in a leak-proof container.

Section 7: HANDLING AND STORAGE

Storage: Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life.

Mechanical Containment: If potting or sealing the battery in an airtight or watertight container is required, consult your factory representative for precautionary suggestions.

Handling: Accidental short circuit for a few seconds will not seriously affect the battery. Prolonged short circuit will cause the battery to lose energy, and can cause the safety release vent to open. Sources of short circuits include jumbled batteries in bulk containers, metal jewelry, metal covered tables or metal belts used for assembly of batteries into devices.

Charging: This battery is manufactured in a charged state.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Requirements: N/A
Respiratory Protection: N/A
Eye Protection: N/A
Gloves: Under normal conditions

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Properties	Value
Odour:	Not available
Melting point:	Not available
Boiling point:	Not available
pH:	Not available
Vapour pressure:	Not available
Density:	Not available
Rate:	Not available
Water:	Not available

Section 10: STABILITY AND REACTIVITY

Stability
Avoid decomposing the battery under hazardous conditions and producing dangerous by-products.
The carbon-zinc battery do not meet any of the criteria established in 40 CFR 261.2 of reactivity.

Section 11: TOXICOLOGICAL INFORMATION

Manganese Dioxide: Harmful by inhalation or ingestion. Long term exposure to manganese compounds may reduce fertility in men.
Toxicity data: ORL-RAT LD50 > 3478 mg/kg
Zinc: May be harmful is swallowed or inhaled. May cause gastrointestinal irritant.

Section 12: ECOLOGICAL INFORMATION

Environmental Precautions: This product may be non-hazardous in ordinary use and may be discarded in accordance with applicable governmental regulations and take order with the demands on the environmental protection section.

Environmental Toxicity: On the basis of available information, this material is not expected to produce any significant adverse environmental effects when recommended use instructions are followed.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Disposal methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

13.2 Uncleaned packaging

Recommendation Disposal must be made according to official regulations.

Section 14: INFORMATION REGARDING TRANSPORT

The batteries in all forms of transportation (e.g. truck, air or sea) must be packaged in a safe and responsible manner. Regulatory concerns form all agencies for safe packaging require that batteries be packaged in s manner that prevent short circuits and be contained in (strong carton / packaging) that prevents spillage of contents.

Transport information: Carbon-zinc Battery R03 AAA 1.5V is exempt from dangerous goods.
Carbon-zinc battery (sometime referred to as "dry cell" are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, The IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, (2024 IATA Dangerous Goods Regulations 65th Edition), ICAO Technical Instructions and the U.S. hazardous materials regulations (49 CFR). The batteries are not subject to the dangerous goods regulations provided they meet the requirement contained in the following special provisions.

Regulatory Parties	Special Provisions
ADR	Not Regulated
IMDG	Inc Amdt 41-22
UN, ICAO	Not Regulated
US DOT	49 CFR 172.102 Provision 130
IATA	A123

All carbon-zinc batteries are packed in such a way to prevent short circuits or the generation dangerous quantities of heat and meet the special provisions listed above. In addition, the IATA Dangerous Goods Regulations ICAO Technical Instructions require the words "Not Restricted" and the special Provision No: A123 be provided on the air waybill, when an air waybill is issued.

Section 15: REGULATORY INFORMATION

Batteries are not classified as dangerous goods by US Department of Transportation or the major international regulatory bodies and are therefor not regulated. SARA/TITLE III – As an article, this battery and its contents are not subject to the requirements of the Emergency Planning and Community Right to Know Act.

Section 16: OTHER INFORMATION

Notice to reader
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards exist.

Other information:

ACGIH:	American Conference of Governmental Industrial Hygienists
BCF:	Bioconcentration Factor.
BOD:	Biochemical Oxygen Demand.
CAS:	Chemical Abstracts Service
DNEL:	Derived No Effect Level.
DSL:	The Domestic Substances List of Canada.
EC:	European Commision
EC50:	Median effective concentration
IARC:	International Agengy for Research on Cancer
IATA:	International Air Transport Association.
IECSC:	Inventory of Existing Chemical Substances in China
IMDG:	International Maritime Code for Dangerous Goods.
LC50:	Lethal concentration, 50 percent kill.
LD50:	Lethal dose, 50 percent kill.
NDSL:	The Non-domestic Substances List of Canada.
NOEC:	No Observed Effect Concentration
NIOSH:	US National Institute for Occupational Safety and Health
NTP:	US National Toxicology Program
OSHA:	US Occupational Safety and Health
PC-STEL:	Permissible concentration-short time exposure limit
PC-TWA:	Permissible concentration-time weighted average
PEL:	Permissible Exposure Level
REL:	Recommended Exposure Limit
RTECS:	Registry of Toxic Effects of Chemical Substances
STEL:	Short Term Exposure limit.
TDG:	Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations
TLV:	Threshold Limit Value.
TOC:	Total Organoc Carbon
TSCA:	Toxic Substances Control Act of USA
TWA:	Time-weighted average

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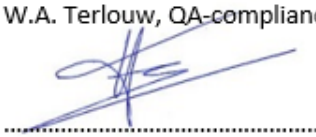
Disclaimer

The information in this MSDS is prepared to the best of our ability and reflects the state of knowledge at the time of publication. The data is presented as a guideline for the safe handling, use, storage, transport, and disposal of the substance, and cannot be regarded as a guarantee certificate or quality specification. The information given relates to the substance as such and may no longer be valid when the substance is used together with other substances or in processes.

End of the material safety data sheet

Intronics BV
W.A. Terlouw, QA-compliance officer



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