瑞璟實業有限公司
GLOSO CO., LTD.

No. CZ202601.V1

MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification



Brand: NOVACELL

Product Name: Carbon Zinc Dry Battery

Item No.: UM3/AA/R6P ,UM4/AAA/R03P,6F22/S006P/9V.

Manufacturer: GLOSO CO., LTD..

Address: 5F-1,NO.103,RUI-HU STREET,NEI-HU DISTRICT,TAIPEI, TAIWAN.

Telephone: (02) 2627-5799

Effective Date: 2026/01/01

Note: Blank space are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

2. Composition/Information on Ingredients

Designation

		Carbon Zinc Dry Battery
	CAS No.	wt%
Zinc (Zn)	7440-66-6	34.1
Manganese Dioxide (MnO_2)	1313-13-9	32
Zinc chloride	7732-18-5	7.0
Water	7732-18-5	15.3
Carbon black	1333-86-4	7.5
Iron	7439-89-6	4.1

3. Hazards Identification

No specific health hazards for normal use.

Routes of Entry: Eyes, Skin, Inhalation, Ingestion.

Health Hazards:

Sign/Symptoms of Exposure:
These chemicals are contained in a sealed can. Risk of exposure occurs only if the battery is mechanically or electrically abused. The most likely risk is acute exposure when a battery vents. Leaking material exposure to skin, eyes may cause irritation. Inhalation of fumes my cause respiratory irritation.

Leaking can cause thermal and chemical burns upon contact with the skin.

4. First-aid Measures

Eye: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available.

Ingestion: Do not include vomiting. Call a physician immediately.

5. Fire Fighting Measures

Flash Point: N/A.

Auto-Ignition Temperature: N/A.

Extinguishing Media: Water, CO_2, dry chemical.

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, other metal oxide gases.

6. Accidental Release Measures

Steps to be Taken in case Material is Released or Spilled:

If the battery is accidentally broken and electrolyte leaks out, wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors.

Waste Disposal Method:

It is recommended to discharge the battery to the end, handing in the abandoned battery to related department unify, dispose of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental agency and/or federal EPA.

7. Handling and Storage

The batteries should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

Precautions to be taken in handling and storing:

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

Other Precautions: Do not short or install with incorrect polarity.

8. Exposure Control, Personal Protection

Respiratory Protection: In case of battery venting, provide as mush ventilation as possible. Avoid confined areas with venting batteries. Respiratory Protection is not necessary under conditions of normal use.

Other Protective Clothing or Equipment:

Not necessary under conditions of normal use. Personal Protection is recommended for venting batteries: respiratory protection, protective gloves, protective clothing and safety glass with side shields.

9. Physical and Chemical Properties

Nominal Voltage: 1.5V.

Appearance Characters: Green and silver, cylindrical, with odorless battery.

10. Stability and Reactivity

Stability: Stable.

Condition to Avoid: Elevated temperatures fire and ignition sources, mechanical abuse and electrical abuse.

Hazardous Decomposition Products: N/A.

11. Toxicological Information

Inhalation, skin contact and eye contact are possible when the battery is opened. Exposure to internal contents, the corrosive fumes will be irritation to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibrotic lung injury and membrane irritation.

Zinc: Skin: 300ug/3 Days. Reaction: Mild.

Manganese Dioxide: Acute oral toxicity LD50 (Rat): >3478 mg/kg.

12. Ecological Information

When promptly used or disposed the battery does not present severe environmental hazard. When disposed, keep away from water, rain and snow.

13. Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation:

Dispose of the battery in accordance with approved local, state, and federal requirements. Consult state environmental agency and/or federal EPA.

14. Transport Information

Carbon Zinc Dry Battery is exempt from dangerous goods.

According to the relevant provision of UN “Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations” ST/SG/AC.10/1/Rev.24, IATA Dangerous Goods Regulations 67th Edition and IMDG CODE（Amdt.42-24）2024 Edition, it doesn’t belong to Dangerous Goods.

The sample list in this report can be transport as ordinary goods.

15. Regulatory Information

Law Information:

《Dangerous Goods Regulation》
《Recommendations on the Transport of Dangerous Goods Model Regulations》
《International Maritime Dangerous Goods》
《Technical Instructions for the Safe Transport of Dangerous Goods》
《Classification and code of dangerous goods》
《Occupational Safety and Health Act》(OSHA)
《Toxic Substances Control Act》(TSCA)
《Consumer Product Safety Act》(CPSA)
《Federal Environmental Pollution Control Act》(FEPCA)
《The Oil Pollution Act》(OPA)
《Superfund Amendments and Reauthorization Act Title Ⅲ (302/311/312/313)》(SARA)
《Resource Conservation and Recovery Act》(RCRA)
《Safety Drinking Water Act》(CWA)
《California Proposition 65》
《Code of Federal Regulations》(CFR)

In accordance with all Federal, State and Local laws.

16. Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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