

## PRODUCT SAFETY DATA SHEET

**PRODUCT NAME:**FREEGO Battery

**Type No.:**AAA/R03P   **Volts:**1.5V

**TRADE NAMES:**FREEGO

**Approximate Weight:**7.5G

**CHEMICAL SYSTEM:**Zinc Manganese Dioxide

**Designed for Recharge:**NO

### SECTION 1-MANUFACTURED INFORMATION

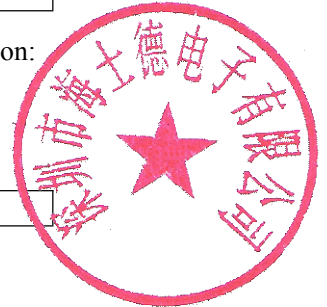
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### SECTION 2-HAZARDS IDENTIFICATION

Under normal conditions of use ,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.

**Inhalation:**Contents of an open battery can cause respiratory irritation.

**Skin Contact:**Contents of an open battery can cause skin irritation and /or chemical burns

**Eye Contact:**Contents of an open battery can cause severe irritation and chemical burns.

### SECTION 3-INGREDIENTS

**IMPROTANT NOTE :**The battery should not be opened or burned.Exposure to the ingredients contained within or their combustion products could be harmful.

MATERIAL OR INGREDIENT	CAS No.	EEC NO.	INDEX NO.	Classification	Wt. %
Manganese Dioxide	1313-13-9	215-202-6	025-001-00-3	Xn;R20/22	23-25
Zinc	7440-66-6	231-175-3	030-002-00-7	N;R50/53	21-35
Water	7722-84-	231-765-0	008-003-00-9	Xn;R22/41	13-17
Ammonium Chloride	12125-02-9	235-186-4	017-014-00-8	Xn;R22, Xi;R36	1.1-1.4
Zinc Chloride	7646-85-7	231-592-0	030-003-00-2	Xn;R22,C;R3 4, N;R50-53	5.5-8.5

### SECTION 4-FIRST AID MEASURES

**Ingestion:** Do not induce vomiting or give food or drink.Seek medical attention immediately.Call national battery ingestion hotline for advice .

**Inhalation:**Provide fresh air and seek medical attention.

**Skin Contact:**Remove contaminated clothing and wash skin 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 and class of extinguishing medium on these batteries or their packing material.Cool exterior of batteries if exposed to fire to prevent rupture.

Fire fighters should wear self-contained breathing apparatus.

## SECTION 6-ACCIDENTAL RELEASE MEASURES

To cleanup leaking batteries:

**Ventilation Requirements:**Room ventilation 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 Dongguan Tuobu Electronic Co.,Ltd. for precautionary suggestions.Batteries normally evolve hydrogen which,when combined with oxygen from the air,can produce a combustible a combustible or explosive mixture vented.If such a mixture is present,short circuits,high temperature,or static sparks can cause an ignition.

Do not obstruct safety release vents on batteries.Encapsulation(potting)of batteries will not allow cell venting and can cause high pressur rupture.

**Handling:** Avoid mechanical or electrical abuse. Do not short or install incorrectly. Batteries may explode,pyrolize or vent if disassembled, crushed, recharged or exposed to high temperatures. Install batteries in accordance with equipment instructions.Do not mix battery systems, such as alkaline and zinc chloride, in the same equipment.Replace all batteries in equipment at the same time. Do not carry batteries loose in pocket or bag.

**Charging:**This battery is manufactured in a charged state.It is not designed for recharging.Recharging can cause battery leakage or ,in some cases,high pressure rupture.Inadvertent charging can occur if a battery is installed backwards.

**Labeling:**If the FREEGO Battery label or package warnings are not visible,it is important to provide a package and /or device label stating:

**Warning:**do not install backwards,charge,put in fire,or mix with other battery types.May explode or leak causing injury.

Where accidental ingestion of small batteries is possible,the label should include:

Keep away from small children.If swallowed,promptly see doctor.

## SECTION 8-EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation Requirements:**Not necessary under normal conditions.

**Respiratory Protection:**Not necessary under normal conditions.

**Eye Protection:**Not necessary under normal conditions.

**Gloves:** Not necessary under normal conditions.

## SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

**Form and Colour:** Cylindrical battery. Contents dark in colour.

**Odour:** Not applicable Change in physical state

**Melting point/melting range:** Not available

**Boiling point/boiling range:** Not available

**Flash point:** Not applicable

**Explosion limits:** Not available

**Ignition temperature:** Not available

**Vapour pressure:** Not available

**Specific Gravity:** Not applicable

**% Volatiles:** Not available

**Solubility in water:** Not applicable

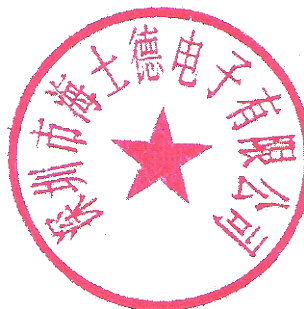
**Solubility in other solvents:** Not applicable

**PH value:** Not available

**Octanol/water partition coefficient (log POW):** Not available

**Viscosity:** Not available

Toxicity information is available on the battery ingredients noted in Section 2, but, generally not.



## SECTION 10-STABILITY AND REACTIVITY

**Thermal decomposition:** Batteries may burst and release hazardous decomposition products when exposed to a fire situation.

**Substance(s) to avoid:** Strong oxidisers

**Hazardous reactions:** Contents incompatible with strong oxidising agents.

**Hazardous decomposition products:** Thermal degradation may produce hazardous fumes of zinc and manganese, caustic vapours of zinc chloride and ammonium chloride and other toxic by-products.

## SECTION 11-TOXICOLOGICAL INFORMATION

Toxicity information is available on the battery ingredients noted in Section 2, but, generally not applicable to intact batteries as used by customers.

## SECTION 12-ECOLOGICAL INFORMATION

Issues such as ecotoxicity, persistence and bioaccumulation are not applicable for articles.

## SECTION 13-DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable federal, state and local regulations. Appropriate disposal technologies include incineration and land filling.

**SECTION 14-TRANSPORT INFORMATION**

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 a manner that prevents short circuits and be contained in (Strong Carton/Packaging)that prevents spillage of contents.

Carbon Zinc Battery (sometime referred to as “**Dry Cell**” are not listed as dangerous goods under the **IATA Dangerous Goods Regulation,ICAO Technical Instructions** and **the U.S. hazardous materials regulations (49 CFR)**.These 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	295-304,598,
IMDG	UN 3028 Provisions 295-304
UN,ICAO	UN 3028 Provisions 295-304
US DOT	49 CFR 172.102 Provision 130
IATA,	A123,

**\*\*All Carbon Zine 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 produced by Shenzhen Highest Electronic Co.,Ltd. are not classified as dangerous goods by the US Department of Transportation or the major international regulatory bodies and are therefore not regulated. As and 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**

Mercury<5ppm,Lead<1000ppm,Cadmium<5ppm.

