



Our products and testing agencies have confirmed that Thermometer (AG13 battery) in this kit is electrical so we provide 1*SDS as following:
(Please note that the hot plate in this kit is not electrical)



SDS Report

Report No. : WUX202312205163SDS
Samples : Thermometer (AG13 battery)
Models : /
Applicant : shenzhenshishenchuanqizhuangshigongcheng CO.,LTD.
Address : 501, No.274, Jian'an 1st Road, Bao'an District, Shenzhen Guangdong 518000
Manufacturer : shenzhenshishenchuanqizhuangshigongcheng CO.,LTD.
Address : 501, No.274, Jian'an 1st Road, Bao'an District, Shenzhen Guangdong 518000
Data of Issue : December 23, 2023



Prepared by:

Rust He

Approved by:

A handwritten signature in black ink, appearing to read "Long" followed by a stylized flourish.

Shenzhen Wuxiang Testing (Group) Co., Ltd.

Add: Building B, Xinbaosheng, No.233, Xixiang Street, Bao'an District, Shenzhen, China.

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****Modified History****

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	2023/12/23	Rust He

SDS Report

Section 1- Chemical Product and Company Identification

Product Name : Thermometer (AG13 battery)
Models : /
Manufacturer : shenzhenshishenchuanqizhuangshigongcheng CO.,LTD.
Address : 501, No.274, Jian'an 1st Road, Bao'an District,
Shenzhen Guangdong 518000
TEL : +86 19123123669
Emergency Telephone : +86 19123123669
Fax : /
E-mail : Shenchuanqizhuangshi@outlook.com

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Section 2-Composition/ Information on Ingredients

Component	CAS No.	Wt%
Manganese dioxide	1313-13-9	31.75
Zinc	7440-66-6	12.82
Graphite	7782-42-5	4.66
Potassium Hydroxide	1310-58-3	10.26
Cadmium	7440-43-9	<0.0005
Mercury	7439-97-6	<0.0001
Lead	7439-92-1	<0.001
Iron	7439-89-6	<40.511

Section 3- Hazards Identification

Eyes

Exposure to the electrolyte contained inside the battery may result in severe irritation and chemical burns.

Skin

Exposure to the electrolyte contained inside the battery may result in chemical burns.

Inhalation

During normal use inhalation is an unlikely route of exposure due to containment of hazardous materials within the Battery case. However, should the batteries be exposed to extreme heat or pressures causing a breach in the battery Cell case, exposure to the constituents may occur.

Ingestion

If the battery case is breached in the digestive tract, the electrolyte may cause localized burns.

Section 4- First Aid Measures

Eyes

Wash thoroughly with running water. Get medical advice if irritation develops.

Skin

If the internal cell materials of an opened battery cell come into contact with the skin, immediately flush with water for at least 15 minutes. Take off the contaminated clothes immediately. Get medical advice if irritation develops.

Inhalation

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion

Do not induce vomiting, seek immediate medical attention.

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Section 5- Fire-Fighting Measures

Extinguishing Media:

Use water, foam or dry powder, as appropriate to extinguish fire.

Fire Fighting Procedures:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with Full-face piece operated in the pressure demand or other positive pressure mode. Fight fire from the maximum Distance. Evacuate area.

Specific Hazards:

When involved in a fire, this material may decompose and produce irritating fumes which is harmful for firefighter.

Section 6- Accidental Release Measures

Personal Precautions:

Wear appropriate personal protective equipment as specified in Section VIII.

Methods of Clean up:

Spill and leaks are unlikely because cells are contained in a hermetically-sealed case. In the event of a battery rupture, prevent skin contact and collect all released material in a plastic lined metal container. Dispose in accordance with applicable state and federal regulations.

Section 7- Handling and Storage

Use and store at room temperature. Avoid mechanical or electrical abuse. DO NOT short or install incorrectly. Batteries may explode, pyrolyze or vent if disassembled, crushed, recharged or exposed to high temperature. Install batteries in accordance with equipment instructions. Do not mix battery systems, such as alkaline and zinc carbon, in the same equipment. Replace all batteries in equipment at the same time. Do not carry batteries loose in pocket or bag.

Section 8- Exposure Controls/ Personal Protection

Exposure guidelines:

Manganese Dioxide(as Mn): 5.0mg/m³ (OSHA); 0.2mg/m³ (ACGIH) Potassium Hydroxide; 2mg/m³ (ACGIH)

Zinc(as ZnO, dust): 2mg/m³ (ACGIH)

Engineering measure:

Use general ventilation under normal use condition.

Personal protection equipment:

Respiration protection: Not required under normal use.

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Eye protection: Not required under normal use. Wear safety glasses or face shield as appropriate when handling leaking batteries.

Hand protection: Not required under normal use. Use gloves when handling leaking batteries.

Skin and Body Protection: Not required under normal use. Use protection clothes when handling leaking batteries.

Recommended decontamination facilities:

Eye bath, safety shower, washing facilities.

Section 9- Physical and Chemical Properties

Odor: Odorless

Appearance: Silvery solid.

Boiling Point: N/A

Melting Point: N/A

Solubility in Water: Insoluble

Density: N/A

Ignition temperature: N/A

Section 10- Stability and Reactivity

Stability:

The product is considered stable under normal conditions.

Materials to Avoid:

The battery cells are encased in a non-reactive container, however, if the container is breached or ruptured, avoid contact of internal battery components with acids, strong oxidizing agents.

Stability Condition to Avoid:

Avoid heat, open flames, moisture, crush, disassemble, short circuit or recharge.

Hazardous Decomposition Products:

Thermal degradation may produce hazardous fumes of zinc and manganese, hydrogen gas, caustic vapors of potassium hydroxide and other toxic by-products.

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 if swallowed or inhaled. May act as an irritant.

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Potassium Hydroxide:

Corrosive-may cause serious burns.Harmful by ingestion.ingalation and in contact with skin.If the solid or solution comes into contact with the eyes,serious eye damage may result.

Toxicity date:

ORL-RAT LD50 365mg kg-1

Irritation date:

SKN-HMN 50mg/24h sev

SKN-RBT 50mg/24h/sev

DYE- RBT 1mg/24h/rinse mod

SKN-GPG 50mg/24h/sev

Section 12- Ecological Information

Environmental Precautions:

This product meets the lead,Cadmium and Mercury content requirements of 98/101/EC & 91/157/EEC directives.So it may be non-hazardous in ordinary use and may be discarded in a accordance with applicable governmental regulations and take order with the demand of 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

Waste Disposal Methods:

Individual consumers may dispose of spent(used) batteries with household trash.This product does not recommend that spent batteries be accumulated(quantities of five gallons or more should be disposed of in a secure landfill).in accordance with Federal.State or Local Laws and Regulations.Do not incinerate,since batteries may explode at excessive temperature.

Note:

This product meets the lead, Cadmium and Mercury content requirements of 98/101/EC & 91/157/EEC directives.

Section 14- Transport Information

Transport InformationShipping NameLithium Metal CellsUN Number:UN3090 (UN3091 for lithium batteries in equipment)All TianQiu lithium batteries when transported by ground are not subject to therequirements of the Department of Transportation (DOT) Subchapter C, HazardousMaterials Regulations if they shipped in accordance with all of the applicable provisions of Special Provision 188All TianQiu lithium batteries are exempt from the other requirements of the Internationa Civil Aviation Organization (ICAO) and the International Air Transport Association
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(IATA) dangerous goods regulations if they are transported in accordance with all of the requirements set out in Section II of Packing Instruction 968, 969 and 970 under the current edition of the IATA Dangerous Goods Regulations 63st 2023. As of 1 January 2016 lithium metal batteries packed by themselves (not contained in or packed with equipment) are forbidden for transport as cargo on passenger aircraft). All TianQiu lithium batteries are exempt from the other requirements of the International Maritime Organization (IMO) dangerous goods regulations if they are transported in accordance with all of the applicable requirements of Special Provisions 188 and 230. For a lithium metal or lithium alloy cell, the lithium content or aggregate lithium content is not more than 19. For a lithium metal or lithium alloy battery, the lithium content or aggregate lithium content is not more than 2g. Each cell or battery of TianQiu is of the type proven to meet the requirement of each test in the UN Manual of Tests and Criteria, Part III subsection 38.3. If you build any of our lithium cells into a battery pack, you must also assure that they are tested in accordance with the UN Model Regulations, Manual of Test and Criteria, Part I 11, subsection 38.3. Effective December 29, 2004, the DOT requires that the outside of each package that contains primary lithium batteries, regardless of size or number of batteries, be labeled with the following statement: "PRIMARY LITHIUM BATTERIES- FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT". The labeling requirement covers shipments via highway, rail, vessel or cargo-only aircraft and covers all shipments inside, into or out of the US. The label must be in contrasting color and the letters must be 12 mm (0.5 in) in height for packages weighing more than 30 Kg and 6 mm (0.25 in) in height for packages weighing less than 30 Kg.

Section 15- Regulatory Information

Overview:

Do not dispose in fire, mix with other battery types, recharge, connect improperly, or short circuit, which may result in overheating, explosion or leakage of cell contents. Observe all warnings and precautions listed for the product before use. The children should be instructed before they make use of the product.

Manganese Dioxide: EC#: 215-202-6

CAS#: 1313-13-9

Classification and Labelling Information: Annex I Index# 025-001-00-3

European Priority Lists and Risk Assessment Information (Council Regulation (EEC) 793/93):

This chemical substance is not listed in a priority list (as foreseen under Council Regulation (EEC) No 793/93 on the evaluation and control of the risks of existing substances.)

Risk phrases: R20/R22

Safety phrases: S25

Zinc:

EC#: 231-175-3

CAS#: 7440-66-6

Classification and Labelling Information: Annex I Index#(1): 030-001-00-1

Substance Name in Annex 1: Zinc powder-zinc dust (pyrophoric) Annex I Index#(2): 030-002-00-7

Substance Name in Annex 1: Zinc powder-zinc dust (stabilized)

European Priority Lists and Risk Assessment Information (Council Regulation (EEC) 793/93): Rapporteur: Netherlands

Priority List#: 2

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ECB#:072

Safety phrases:S7 S8 S43

Potassium Hydroxide: EC#:215-1813-3

CAS#:1310-58-3

Classification and Labelling Information: Annex I Index#019-002-00-8

European Priority Lists and Risk Assessment Information(Council Regulation(EEC)793/93:

This chemical substance is not listed in a priority list(as foreseen under Council Regulation(EEC) No793/93 on the evaluation and control of the risks of existing substances.)

Risk phrases:R20 R21 R22 R35 R41

Safety phrases:S26 S36 S37 S39 S45

Section 16- Other 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.

*****END OF REPORT*****