Report No. ATSM211211421



# 材料安全数据表 Material Safety Data Sheet

Sample name :				:	BUTTON ALKALINE ZINC-MANGANESE DIOXIDE BATTERY
样	品	名	称	:	纽扣碱性锌锰电池
Consignor :					
Co	nsi	ign	o r	:	SHEN ZHEN QI YUE NENG BATTERY CO., LTD

## 东莞市全测电子科技有限公司 ATS Electronic Technology Co., Ltd.

东莞市全测电子科技有限公司 ATS Electronic Technology Co., Ltd. 广东省东莞市长安镇锦厦社区河东三路一号A栋三 楼, 523852 3/F., Building A, No.1, Hedong 3rd Road, Jinxia Community, Changan, Dongguan, Guangdong, China Tel: +86-769-38975958 Fax: +86-769-38975968 Web:www.dgats.com Report No. ATSM211211421

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## 材料安全数据表 Material Safety Data Sheet

1. Identification	n of the product	t and supplier (产品和厂商信息)	
Name of goods 样品名称	BUTTON ALKALINE 2 纽扣碱性锌锰电池	ZINC-MANGANESE DIOXIDE BATTERY	
Type/Mode 样品型号	396, LR726, AG3, LR LR48, 393, LR754, AC AG8, LR55, 391, LR1 <sup>-</sup> LR1130, AG11, LR72 <sup>-</sup>	9A, LR521, AG1, LR60, 364, LR621, AG2, LR59, 41, 392, LR736, AG4, LR66, 377A, LR626, AG5, 66, LR69, 371, LR921, AG7, LR57, 395, LR927, 120, AG9, LR45, 394, LR936, AG10, LR54, 389, 1, 362, AG12, LR43, 386, AG13, LR44, L1154, 3A, L1028, 27A, L828, 4LR44, 32A, 11A, 10A	
Commissioned by 委托单位	SHEN ZHEN QI YUE 深圳市琪粵能电池有限	NENG BATTERY CO.,LTD 公司	
Commissioner address 委托单位地址	2/F, Building 1, Red Star Dalang Second Industrial Area, Songgang Street, Baoan District, Shenzhen City, Guangdong, P. R. China 深圳市宝安区松岗街道红星大朗工业区二排一栋2楼 SHEN ZHEN QI YUE NENG BATTERY CO.,LTD 深圳市琪粵能电池有限公司		
Manufacturer 制 <del>造</del> 商			
Manufacturer address 制造商地址	2/F, Building, Red Star Dalang Second Industrial Area, Songgang Street, Baoan District, Shenzhen City, Guangdong, P. R. China 深圳市宝安区松岗街道红星大朗工业区二排一栋2楼		
Inspection according to 鉴定依据		Directive 93/112/EC 国《关于危险品货物运输的建议书》 Recommendations on the TRANSPORT OF DANGEROUS GOODS"	
Emergency telephone call 緊急联系电话+86-755-29590503接样日期 / Receiving date: 2021-12-23			
		签发日期 / Issue date: 2022-01-01	

Tested by:

主检: X Hin

Reviewed by: 审核:

潘池多

Approved by: 批准:

2. Composition/Information on Ingredient (成分/组成信息)					
Hazardous Ingredients (Chemical Name)	Concentration or concentration ranges (%)	CAS Number			
Zinc	25% - 31%	7440-66-6			
Manganese Dioxide	25% -35%	1313-13-9			
Carbon	9% - 12%	7440-44-0			
Copper	1%	7440-50-8			
Zinc Chloride	6%	7646-85-7			
Ammonium Chloride	1.3%	12125-02-9			
Iron	1.5%	7439-89-6			
Water	13% - 17%	7732-18-5			
Polypropylene	2% - 3%	9003-07-0			

3. Hazards Identification (主要危险性鉴定)				
爆炸危险性	该物品不属于爆炸危险品			
Explosive risk	This article does not belong to the explosion dangerous goods			
易燃危险性	该物品不属于易燃危险品			
Flammable risk	This article does not belong to the flammable material			
氧化危险性	该物品不属于氧化危险品			
Oxidation risk	This article does not belong to the oxidation of dangerous goods			
毒害危险性	该物品不属于毒害危险品			
Toxic risk	This article does not belong to the toxic dangerous goods			
放射危险性	该物品不属于放射危险品			
Radioactive risk	This article does not belong to the radiation of dangerous goods			
腐蚀危险性	该物品不属于腐蚀危险品			
Mordant risk	This article does not belong to the corrosion of dangerous goods			
其他危险性 other risk	N/A			

## 

## 4. First aid measures (急救措施)

#### 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

Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

## 5. Fire-fighting measures (消防措施)

Flash Point: N/A.

Auto-Ignition Temperature: N/A.

Extinguishing Media: Water, CO2.

Special Fire-Fighting Procedures

Self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards** 

Cell may vent when subjected to excessive heat-exposing battery contents.

### **Hazardous Combustion Products**

Carbon monoxide, carbon dioxide, lithium oxide fumes.

## 6. Accidental release measures (泄漏应急处理)

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

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. 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. Remove spilled liquid with absorbent and incinerate.

#### Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

## 7. Handling and storage (操作处置和储存)

The battery 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 over 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**

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

## 8. Exposure controls/personal protection (接触控制/个人保护)

#### **Respiratory Protection**

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

#### Ventilation

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 battery

Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

### 9. Physical and chemical properties (物理和化学特性)

pH: Not applicable as supplied.

Flash Point: Not applicable unless individual components exposed.

Flammability: Not applicable unless individual components exposed.

Relative density: Not applicable unless individual components exposed.

Solubility (water): Not applicable unless individual components exposed.

Solubility (other): Not applicable unless individual components exposed.

## 10. Stability and reactivity (稳定性和反应活性)

Stability: Product is stable under conditions described in Section 7.

**Conditions to avoid:** Incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

Materials to avoid: Flammable or combustible, Acid strength.

Hazardous Decomposition Products: N/A.

Hazardous Polymerization: N/A.

## 11. Toxicological information (毒理性资料)

Signs & symptoms: None, unless battery ruptures.

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

Inhalation: Lung irritant.

Skin contact: Skin irritant

Eye contact: Eye irritant

Ingestion: Poisoning if swallowed

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

## 12. Ecological information (生态学资料)

Mammalian effects: None known at present.

Eco-toxicity: None known at present.

Bioaccumulation potential: Slowly Bio-degradable.

Environmental fate: None known environmental hazards at present.

### 13. Disposal consideration (废弃处置)

Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

## 14. Transport information (运输信息)

Our silver oxide battery is not classified dangerous goods by International Air Transport Association (IATA), International CIvII Aviation Organization (ICAO), U.S. Department of Transportation (DOT) International Maritime Organization(IMO).

It can be transported by air and sea usually.

Please pack it in a container which can prevent any damage by high humidity and high temperature. Please handle the battery so that it is not damaged while transporting.

Silver oxide battery is not classified as dangerous under the IATA Dangerous Goods Regulations 63rd edition 2022, also our battery is comply with the special provision A123, because for effective packaging to prevent external short circuit.

## 15. Regulation information (法规信息)

#### Law information

OSHA hazard communication standard (29 CFR 1910.1200)

## 16. Other information (其他信息)

This information is not effective to all the batteries manufactured by SHEN ZHEN QI YUE NENG BATTERY CO., LTD. This information comes from reliable sources, but no warranty is made to the completeness and accuracy of information contained. ATS electronic Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries. User's should grasp the correct use method and be responsible for the use of batteries.