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# ***SAFETY DATA SHEET***

**Product Name:** Alkaline Dry Zinc-Manganese Dioxide  
Battery AAA LR03 1.5V

**Effective Date:** 2020-04-23

**Compiler:** Liu Linlin

**Checker:** Dongxuesheng

**Approver:** Zhangxiangjin



Shanghai Research Institute of Chemical Industry Testing Co., Ltd.



## ShenZhen New Positive Energy Co., Ltd

## SAFETY DATA SHEET

## Alkaline Dry Zinc-Manganese Dioxide Battery AAA LR03 1.5V

## SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Alkaline Dry Zinc-Manganese Dioxide Battery AAA LR03 1.5V  
Company: ShenZhen New Positive Energy Co., Ltd  
Address: No.5 Building, Hetai Industrial Park, Qiaotou Community, Fuhai Street, Baoan District, Shenzhen City, 518103, P.R.China  
Email: /  
Fax: 86-755-33819330  
Emergency Phone: 86-13600433237  
SDS Number: 2620040105  
Effective Date: 2020-04-23

## SECTION2 HAZARDS IDENTIFICATION

## Hazards Identification:

The battery is not restricted to IATA DGR (61<sup>th</sup> Edition) according to special provision A123.  
The battery is not subject to IMO IMDG Code(2018 Edition).  
The battery is not subject to JT/T617-2018.  
The battery is not subject to List of Dangerous Goods by Rail(2009).

## Emergency Overview:

Avoid contact and inhalation the internal materials. Emit toxic fumes under fire conditions.

## SECTION3 INFORMATION ON INGREDIENTS

Product name: Alkaline Dry Zinc-Manganese Dioxide Battery AAA LR03 1.5V

Ingredient	Concentration	CAS No.	EC No.
Zinc	28%	7440-66-6	231-175-3
Manganese Dioxide	22%	1313-13-9	215-202-6
Iron	20%	7439-89-6	231-096-4
Distillated water	15%	7732-18-5	231-791-2
Carbon	8%	1333-86-4	215-609-9
Potassium Hydroxide	4%	1310-58-3	215-181-3

## SECTION4 FIRST-AID MEASURES

### Skin Exposure:

If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water.

### Inhalation Exposure:

In case of inhale the internal battery materials, remove immediately to fresh air and seek medical attention.

### Eye Exposure:

In case of the internal battery materials in contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

### Oral Exposure:

If swallowed the internal battery materials, do not induce vomiting. Seek immediate medical attention.

## SECTION5 FIRE FIGHTING MEASURES

### Extinguishing Media:

Suitable: Dry chemical, Carbon dioxide and appropriate foam.

### Firefighting:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazards: Emit toxic fumes under fire conditions.

### Specific Hazards:

The leaking electrolyte may corrosive. Under the conditions of short-circuited, overcharged, overdischarged, punctured, crushed, and exposed on the temperature higher than that specified by manufacture, the battery may burn or explode.

## SECTION6 ACCIDENTAL RELEASE MEASURES

### Procedure of Personal Precaution:

Exercise appropriate precautions to minimize direct contact with skin and eyes.

### Methods for Cleaning up:

In case of internal materials leak, mix with inert material (e.g. dry sand, vermiculite) and transfer to a dry, clean, lidded container for disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete. Avoid directly release the cleaning waste water into the environment.

## SECTION7 HANDLING AND STORAGE

### Handling:

Wear appropriate protective clothing and safety gloves. Avoid contact and inhalation the internal materials. Keep away from ignition sources, heat and flame. No smoking at working site. Incompatibilities: strong oxidizing agents, corrosives and foods. If it is not intend to do, do not short-circuit, overcharge, overdischarge, puncture and crush the battery. Do not expose the battery on the temperature higher than that specified by manufacture.

### Storage:

Store in a cool, dry, and well-ventilated area. Keep away from ignition sources, heat and flame. Store in a tightly closed container. Incompatibilities: strong oxidizing agents, corrosives and foods. Such batteries must be packed in inner packaging in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits.

**SECTION8 EXPOSURE CONTROL/PPE****Engineering Controls:**

Use ventilation equipment if available. Safety shower and eye bath.

**Personal Protective Equipment:**

Respiratory: Government approved respirator if needed.

Eye: Chemical safety goggles if needed.

Clothing: Wear appropriate protective clothing.

Hand: Protective gloves.

**Other Protect:**

No smoking, drinking and eating at working site. Wash thoroughly after handling.

**SECTION9 PHYSICAL/CHEMICAL PROPERTIES**

**Appearance:** Golden and green cylinder plastics film shell

**Odor:** Odorless

**Melting Point/°C:** >300°C

**Solubility:** Partial soluble in water

**SECTION10 STABILITY AND REACTIVITY****Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Avoid exposure to heat and open flame. Do not puncture, crush or incinerate. Prevent short circuits.

Prevent movement which could lead to short circuits. Do not attempt to recharge this battery.

**Materials to Avoid:**

Strong oxidizing agents, corrosives.

**Hazardous Polymerization:**

Will not occur.

**Hazardous Decomposition Products:**

When exposed to extreme heat/fire batteries may rupture leaking corrosive material and/or emit toxic fumes. Burning batteries may emit toxic fumes of zinc oxide and manganese oxide.

**SECTION11 TOXICOLOGICAL INFORMATION****Toxicity Data:**

No data available.

**Irritation Data:**

The internal battery materials may cause irritation to eyes and skin.

**SECTION12 ECOLOGICAL INFORMATION**

No data available.

**SECTION13 DISPOSAL CONSIDERATION****Appropriate Method of Disposal of Substance:**

Dispose of in accordance with all applicable federal, state and local regulations.



**SECTION14 TRANSPORT INFORMATION**

**IATA DGR (61<sup>th</sup> Edition) :** Not restricted to IATA DGR according to special provision A123.

**IMO IMDG Code(2018 Edition):** Not subject to IMO IMDG Code.

**SECTION15 REGULATORY INFORMATION**

Manganese Dioxide Battery is unregulated for purpose of transportation by U.S.Department of Transportation (DOT), International Civil Aviation Administration (ICAA), International Air Transport Association (IATA) and the International Maritime Dangerous Goods regulations (IMDG). The requirements for shipping these batteries, in all modes of transportation, are that they be separated from each other to prevent short-circuits and to prevent movement that could lead to short-circuits. Products must also be packed in strong packaging that can withstand the rigors normal to transportation.

**SECTION16 OTHER INFORMATION**

**Date:**

2020-04-23

**Department:**

Shanghai Research Institute of Chemical Industry Testing Co., Ltd.  
Tel (Fax) :+86-21-52815377/31765555

**Revision:**

0

**Other Information:**

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