Pony Testing International Group

Report No.: H07173032516D~1

# MSDS Report

| | |
|---|---|
| Samples | Alkaline Zinc-manganese Battery ( LR03 ) |
| Client | FUJIAN NANPING NANFENG BATTERY CO., LTD |
| Client Address | NO.1, Xiangrui road, Jiangnan Industrial Park, Nanping, Fujian, China |

No.: H7173032516D
Code: ko6y52h0l

# Material Safety Data Sheet

## Section 1 - Chemical Product and Company Identification

**Product Name:** Alkaline Zinc-manganese Battery
**Battery Type:** LR03
**Manufacturer:** FUJIAN NANPING NANFENG BATTERY CO., LTD
**Address:** NO.1, Xiangrui road, Jiangnan Industrial Park, Nanping, Fujian, China
**Post Code:** 353000
**Tel:** 0599-6180321
**Emergency Telephone:** 0599-6180321
**Fax:** 0599-6180882
**Email:** 1648832001@qq.com

## Section 2 – Composition/Information on Ingredient

| Chemical Composition | Molecule Formula | CAS No. | Weight（%） |
|---|---|---|---|
| Graphite | C | 7782-42-5 | 31.25 |
| Zinc Powder | Zn | 7440-66-6 | 18.25 |
| Manganese Powder | Mn | 7439-96-5 | 25 |
| Stearic Acid | $C_{18}H_{36}O_2$ | 57-11-4 | 8.75 |
| Butanone | $C_4H_8O$ | 78-93-3 | 6.25 |
| Potassium Hydroxide (Liquid) | KOH | 1310-58-3 | 10.5 |

## Section 3 - Hazards Identification

**No specific health hazards for normal use.**
**Routes of Entry**
Eyes, Skin, Inhalation, Ingestion.
**Health Hazards**

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.

**Sign/Symptoms of Exposure**

May be a reproductive hazard. Leaking can cause thermal and chemical burns upon contact with the skin.

## Section 4 - First Aid Measures

**Eyes**

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 induce vomiting. Call a physician immediately.

## Section 5 - Fire Fighting Measures

**Flash Point:** N/A.

**Auto-Ignition Temperature:** N/A.

**Extinguishing Media**

$CO_2$ , dry chemical.

**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, other metallic oxide fumes.

## Section 6 - Accidental Release Measures

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

If the battery is accidentally broken and 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 batteries to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled material with absorbent.

**Waste Disposal Method**

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

## Section 7 - Handling and Storage

The batteries should not be dissected, 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 in fire. Do not crush or puncture the battery, or immerse in hazardous 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.

## Section 8 - Exposure Controls, Personal Protection

**Respiratory Protection**

In case of battery venting, provide as much 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.

## Section 9 - Physical and Chemical Properties

**Nominal Voltage:** 1.5V.
**Rated Capacity:** 1100mAh.

**Appearance Characters:** Black and golden, Cylindrical, with odorless solid battery.
**Chemical Uses:** Product support, mouse, LED flashlight etc.

## Section 10 - Stability and Reactivity

**Stability**
Stable .
**Conditions to Avoid**
Heating, fire, mechanical abuse and electrical abuse.
**Hazardous Decomposition Products**
When exposed to fire or extreme heat, batteries may emit toxic fumes.

## Section 11 - Toxicological Information

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

## Section 12 - Ecological Information

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

## Section 13 - Disposal Considerations

**Appropriate Method of Disposal of Substance or Preparation**
Dispose of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental agency.

## Section 14 - Transport Information

**Alkaline Zinc-manganese Battery (LR03) is exempt from dangerous goods.** It is considered non-dangerous goods by the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) Special Provisions A123, International Martine Dangerous Goods regulations (IMDG) and 《Recommendations on the Transport of Dangerous Goods Model Regulations》(17th).

**S.P.A123** This entry applies to Batteries, electric storage, not otherwise listed in Subsection 4.2–List of Dangerous Goods. Examples of such batteries are: alkali-manganese, zinc-carbon, nickel-metal hydride and nickel-cadmium batteries. Any electrical battery or battery powered device, equipment or vehicle having the potential of dangerous evolution of heat must be prepared for transport so as to prevent
(a) a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals) is forbidden from transport; and
(b) accidental activation
The words “Not Restricted” and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6, when an Air Waybill is issued.

Separate batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport.

**Transport Fashion:** By air, by sea, by railway, by road.

## Section 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)
《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)
《Code of Federal Regulations》(CFR)
In accordance with all Federal, State and Local laws.

## Section 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.

Prepared by: Lie Xian wen Checked by: Yang Jinghua Approved by: Liyou

MSDS Creation Date: July 23, 2013

*** End of report ***

Pony Testing International Group

Report No.: H07173032416D~1

# MSDS Report

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|---|---|
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| Client | FUJIAN NANPING NANFENG BATTERY CO., LTD |
| Client Address | NO.1, Xiangrui road, Jiangnan Industrial Park, Nanping, Fujian, China |

No.: H7173032416D
Code: vu2201mr

# Material Safety Data Sheet

## Section 1 - Chemical Product and Company Identification

**Product Name:** Alkaline Zinc-manganese Battery
**Battery Type:** LR6
**Manufacturer:** FUJIAN NANPING NANFENG BATTERY CO., LTD
**Address:** NO.1, Xiangrui road, Jiangnan Industrial Park, Nanping, Fujian, China
**Post Code:** 353000
**Tel:** 0599-6180321
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**No specific health hazards for normal use.**

**Routes of Entry**

Eyes, Skin, Inhalation, Ingestion.

**Health Hazards**

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.

**Sign/Symptoms of Exposure**

May be a reproductive hazard. Leaking can cause thermal and chemical burns upon contact with the skin.

## Section 4 - First Aid Measures

**Eyes**

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 induce vomiting. Call a physician immediately.

## Section 5 - Fire Fighting Measures

**Flash Point:** N/A.

**Auto-Ignition Temperature:** N/A.

**Extinguishing Media**

$CO_2$ , dry chemical.

**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, other metallic oxide fumes.

## Section 6 - Accidental Release Measures

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

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the batteries to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled material with absorbent.

**Waste Disposal Method**

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

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**Other Precautions**

Do not short or install with incorrect polarity.

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**Respiratory Protection**

In case of battery venting, provide as much 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.

## Section 9 - Physical and Chemical Properties

**Nominal Voltage:** 1.5V.
**Rated Capacity:** 2200mAh.

**Appearance Characters:** Black and golden, Cylindrical, with odorless solid battery.
**Chemical Uses:** Product support, mouse, LED flashlight etc.

## Section 10 - Stability and Reactivity

**Stability**
Stable .
**Conditions to Avoid**
Heating, fire, mechanical abuse and electrical abuse.
**Hazardous Decomposition Products**
When exposed to fire or extreme heat, batteries may emit toxic fumes.

## Section 11 - Toxicological Information

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**Environment Effect**
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When disposed, keep away from water, rain and snow.

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