

# Shenzhen Huquan Technology Co.,LTD

## 深圳虎泉科技有限公司

201,A,Office Building, Lliyumen Street ,Qianwan Road, Shengang Coopertion District, Shenzhen City,Guangdong

Province,China

Tel : +86-755-29172900 Fax :+86-755-27943313

Home Page : <http://www.huquansz.com> E-mail : [battery01@huquansz.com](mailto:battery01@huquansz.com)

Ref. No.: MSDS-DB-15012012

### MATERIAL SAFETY DATA SHEET

Issued by manufacturer:

**Shenzhen Huquan Technology Co.,Ltd**

Date : Jun.9,2015

**Note:** Blank space is not permit if any item is applicable no information is available,  
the space must be marked to indicate that.

#### Section 1 — Identification of the substance/preparation and company

Product name: Alkaline batteries (LR6)

Brand name: EXC

Manufacturer: Shenzhen Huquan Technology Co.,Ltd

Address: 201,A,Office Building, Lliyumen Street ,Qianwan Road, Shengang Coopertion District, Shenzhen City,Guangdong Province,China.

Tel: +86-755-29172900 Fax: +86-755-29433313

#### Section 2 — Composition and information on ingredients

2.1. ACTIVE MATERIALS	APPROXIMATE PERCENT OF TOTAL WEIGHT(%)
Manganese Dioxide (MnO <sub>2</sub> )	25.61
Zinc Powder (Zn)	31.53
Water (H <sub>2</sub> O)	15.32
Ammonium chloride(NH <sub>4</sub> Cl)	1.12
Zinc chloride(ZnCl <sub>2</sub> )	5.62
Conductive Material	4.55
2.2.PASSIVE MATERIALS	APPROXIMATE PERCENT OF TOTAL WEIGHT(%)
PIGMENTS	
ZnO	0.46
BASS METAL bottom bowl	1.28
Ni-plating iron hat	1.36
brass	--
Bi	---

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In		--
Current collector		7.12
OTHERS	Plastic	2.26
	Label	0.50
	Separator	1.41
	Paper collar	0.45
Sealant		1.20
METALLIC TRACES	Hg	≤0.0001
	Pb	≤0.2
	Cd	≤0.025

### Section 3 — Hazards Identification

Warning: When recharge batteries or discard in fire or use used battery with new one or connected improperly may cause battery vent leak or explode.

Damaged batteries may cause skin and eye burn, may cause respiratory tract irritation.

### Section 4 – First Aid Measures

First Aid Procedures

1. If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately.
2. If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15)minutes, and contact a physician.
3. If electrolyte vapors are inhaled, provide fresh air and seek medical attention
4. If respiratory Irritation develops, ventilate the contaminated area.

### Section 5 – Fire-fighting measures

Do not dispose of battery in fire-may cause explosion

Do not short-circuit battery — may cause burns.

### Section 6 – Exposure controls/personal protection

It is suggested to handle the batteries in a ventilated place, to don't smoke, eat or drink during the assembling.

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### Section 7 — Accidental Release or Spillage

Steps to Be Taken in Case Material is Released or Spilled

Batteries that are leakage should be handled with rubber gloves.

Avoid direct contact with electrolyte.

Wear protective clothing and a positive pressure Self-Contained Breathing Apparatus(SCBA).

### Section 8 – Handling and Storage

Safe handling and storage advice

Batteries should be handled and stored carefully to avoid short circuits.

Never disassemble a battery.

Do not breathe cell vapors or touch internal material with bare hands.

Store away from acids and incompatible materials.

### Section 9 - Physical/ Chemical Characteristics

Boiling Point	Specific Gravity(H <sub>2</sub> O=1)
N.A.	N.A.
Vapor Pressure(mm Hg)	Melting Point
N.A.	N.A.
Vapor Density(AIR=1)	Evaporation Rate(Butyl Acetate)
N.A.	N.A.
Solubility in Water	N.A.
Appearance and Odor	Cylindrical Shape, odorless

### Section 10 –Stability and Reactivity

Stability	Unstable		Conditions to avoid
	Stable	√	

Incompatibility (Materials to Avoid)

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### Hazardous Decomposition or Byproducts

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	√	
Route(s) of Entry	Inhalation? N.A.		Skin? N.A.      Ingestion? N.A.

### Health Hazard (Acute and Chronic) / Toxicological information

In case of electrolyte leakage, skin will be itchy when contaminated with electrolyte.

## Section 11—Toxicological Information

Note: Since the materials in this battery are sealed in the can, the potential for exposure to the components of the battery is negligible, when the battery is used as directed. However, technical or electrical abuse of the battery may result in the release of battery contents.

Toxicity to animals: Not available

Chronic effects on human: Not available

## Section 12 — Ecological information

N. A.

## Section 13 — Disposal Consideration

Dispose of the batteries according to the government regulations.

## Section 14 —Transport Information

Ignite batteries are considered to be “Dry Cell” batteries and are unregulated for purposes of transportation by the U.S. Department of Transportation(DOT),International Civil Aviation Administration(ICAO),International Air Transport Association(IATA) and International Maritime Dangerous Goods Regulations(IMDG). The only DOT requirement for shipping these batteries is special provision A123 which states:”Batteries,dry are not subject to the requirement of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat(For example,by the effective insulation of exposed terminals). As per 56<sup>th</sup> edition

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of IATA(2013)requires that batteries being transport by air must be protected from short-circuiting and protected from movement that could lead to short-circuit

### **Section 15 — Regulatory information**

Special requirement be according to the local regulations.

### **Section 16 — Other information**

They must be kept out of reach from children.

They must be used following the Technical Specifications, without exceed the values defined.

The information contained in this sheet are based on the present knowledge and the conditions of use.

For every use not in conformity to the safety sheet or for the use in combination with any other material or in any other process the user is the responsible.