

# 材料安全数据表

## Material Safety Data Sheet

货物名称: 锂-二氧化锰电池 (锂金属电池)

Name of Goods: Li-MnO<sub>2</sub> Battery (Lithium Battery)

委托单位: 武汉昊诚能源科技有限公司

Commissioned by: HCB BATTERY CO., LTD

制造单位: 武汉昊诚能源科技有限公司

Manufacturer: HCB BATTERY CO., LTD

武汉昊诚能源科技有限公司

HCB BATTERY CO., LTD

技术研发部

## 材料安全数据表

### Material Safety Data Sheet

1. Identification of the product and supplier (产品和供应商信息)	
样品名称 Name of goods	锂-二氧化锰电池 (锂金属电池) Li-MnO <sub>2</sub> Battery (Lithium Battery)
样品型号 Type/Mode	CR123A(CR17335) 3.0V 1500mAh 4.5Wh
委托单位 Commissioned by	武汉昊诚能源科技有限公司 HCB BATTERY CO., LTD
委托单位地址 Commissioner address	中国湖北省武汉吴家山经济开发区高桥产业园台中大道特1号 Special NO.1, Taizhong Avenue, Gaoqiao Industrial Park, Wujiashan Economic Development Zone, Wuhan Hubei China
生产企业名称 Manufacturer	武汉昊诚能源科技有限公司 HCB BATTERY CO., LTD
地址 Manufacturer address	中国湖北省武汉吴家山经济开发区高桥产业园台中大道特1号 Special NO.1, Taizhong Avenue, Gaoqiao Industrial Park, Wujiashan Economic Development Zone, Wuhan Hubei China
鉴定依据 Inspection according to	联合国《关于危险品货物运输的建议书》第38.3节; 国际航空运输协会《危险货物运输规则》第58版; 《国际海运危险货物规则》。 UN Manual of Tests and Criteria Part III subsection 38.3; IATA Dangerous Goods Regulations (IATA DGR) (58h); International Maritime Dangerous Goods Code .
紧急联系电话 Emergency telephone call	+86-27-83265161
联系人 Contact	谢艳 Yan Xie
鉴定完成日期 Certification Date	2018-01-03 Jan 03, 2018

Approved by: Ruan Honglin

批准: 阮红林

Reviewed by: Wang Feng

审核: 汪峰

Tested by: Liang Yuli

主检: 梁玉丽



## COMPOSITION / INFORMATION ON INGREDIENTS

### 2 样品所含元素的含量及危险性一览表

材料及组分 MATERIAL OR INGREDIENT	重量含量 Wt%	CAS NO.	备注
Lithium	1.0~2.0(0.52g)	7439-93-2	—
Carbon	0.5~1.0	7440-44-0	—
Manganese Dioxide	30.0~40.0	1313-13-9	—
1,2-Dimethoxyethane	3.0~4.0	110-71-4	—
Propylene Carbonate	3.0~4.0	108-32-7	—
Lithium perchlorate	0.5~1.0	7791-03-9	—
Stainless Steel	25.0~35.0	12597-68-1	—
Others	10.0~20.0	—	—
<b>3 主要危险性鉴定</b>	鉴定结果		
爆炸危险性	该物品不属于爆炸危险品		
易燃危险性	该物品不属于易燃危险品		
氧化危险性	该物品不属于氧化危险品		
毒害危险性	该物品不属于毒害危险品		
放射危险性	该物品不属于放射危险品		
腐蚀危险性	该物品不属于腐蚀危险品		
其他危险性	该物品为锂离子电池,能量值为4.5Wh		

**NOTE:** The battery should not be opened or exposed to heat because exposure of the ingredients contained within could be harmful under some circumstances.

### 4. First aid measures (急救措施)

The product contains organic electrolyte. In case of electrolyte leakage from the battery, actions described below are required.

#### Eye contact:

Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing. Take a medical treatment. If appropriate procedures are not taken, this may cause an eye irritation.

#### Skin contact:

Wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin.

#### Inhalation:

Remove to fresh air immediately. Take a medical treatment.

### 5. Fire-fighting measures (灭火措施)

#### Extinguishing method:

Since vapor, generated from burning batteries may make eyes, nose and throat irritate, be sure to extinguish the fire on the windward side. Wear the respiratory protection equipment in some cases.

**Fire extinguishing agent:**

Dry chemical, carbon dioxide and sand. Be sure not to use water and foam fire extinguisher.

**6. Accidental release measures (突发事件处理措施)**

Measures for electrolyte leakage from the battery

- Take up with absorbent cloth.
- Move the battery away from the fire

**7. Handling and Storage (处理和储存)**

- When packing the batteries, do not allow battery terminals to contact each other, or contact with other metals. Be sure to pack batteries by providing partitions in the packaging box, or in a separate plastic bag so that the single batteries are not mixed together.
- Do not let water penetrate into packaging boxes during their storage and transportation.
- Storage Condition: Temperature  $\leq 30^{\circ}\text{C}$  Humidity  $\leq 75\%\text{RH}$ .

**8. Physical and chemical properties(物理和化学特性)**

Appearance: Square shape

Nominal voltage: 3.0Volts

**9. Stability and reactivity (稳定性和反应性)**

Since batteries utilize a chemical reaction they are actually considered a chemical product.

As such, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, the various usage conditions such as discharge, ambient temperature, etc. are not maintained within the specified ranges. The life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage.

**10. Toxicological information (有毒有害信息)**

Acute toxicity: Cortex (rat) LD50>422mg/kg(estimated)

Irritation: Irritating to eyes and skin

Mutagenicity: Not specified

Chronic toxicity: Not specified

**11. Ecological information(生态信息)**

—In case of the worn-out battery was disposed in land, the battery case may be corroded, and leak electrolyte. But, we have no ecological information.

Mercury(Hg) and Cadmium(Cd) are neither contained nor used in battery.

**12. Disposal consideration (回收考虑)**

—When the battery is worn out, dispose of it under the ordinance of each local government the law issued by relating government.

—Disposal of the worn-out battery may be subjected to Collection and Recycling Regulation.

### 13. Transport information (运输信息)

**Hazards identification:** None.

**Suggestion according to IMO IMDG Code:**

The substance is not restricted to IMO IMDG Code according to special provision 188.

**Suggestion according to IATA DGR:**

The substance is not restricted to IATA DGR according to packing instruction 968 General Requirements and Section IB.

**Packaging requirements:**

The goods are packaged according to the packaging requirement of ordinary goods.

**Other:**

- The goods are primary lithium batteries. Each package must be marked indicating that it contains lithium batteries and that special procedures should be followed in the event that the package is damaged. Each shipment must be accompanied with a document indicating that the packages contain lithium batteries and that special procedures should be followed in the event a package is damaged.
- The battery or cell is packed in inner packagings that completely enclose the battery or cell. The battery or cell is packed in strong outer packing. The battery or cell is protected so as to prevent short circuits.
- The package is capable of withstanding a 1.2m drop test in any orientation without damage to cells or batteries contained therein, without shifting of the contents so as to allow battery to battery or cell to cell contact and without release of contents.
- When the goods by air,the package does not exceed 2.5kg gross mass. When the goods by sea,the package does not exceed 30kg gross mass.

### 14. Regulation information (法规信息)

- UN Manual of Tests and Criteria PartIII subsection 38.3
- IATA Dangerous Goods Regulations (IATA DGR) (58th);
- International Maritime Dangerous Goods Code.

### 15. Other information (其他信息)

- Do not place battery into fire
- Do not weld directly battery long time.
- Do not recharge battery.
- Do not force-discharge.
- Do not connect batteries in series or parallel by oneself.
- Do not reverse the positive and negative terminals
- Do not swallow.
- Do not discard.
- Stop immediately use it when serious heating or leakage.
- Before using the products, please read the manual Carefully or contact the Manufacturer.