



MATERIAL SAFETY DATA SHEET

Section 1 — Identification of the substance and of the company

Identification of the product: Lithium Manganese Dioxide Coin Cell
Manufacturer: Changzhou Lithium Batteries Ltd.
Address: No.35, Taihu West Road, New North District Changzhou, Jiangsu, PRC.
Telephone: +86-519-85100885
E-mail: admin@czliba.com

Section 2 — Composition and information on ingredients

Lithium, Manganese Dioxide and Electrolyte

Section 3 — Hazards Identification

Hazardous Components:

Description:	Approximate% of total weight	
Mercury:	0	Wt%
Cadmium:	0	Wt%
Metallic Lithium:	2-3	Wt%

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.

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.

Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries.

Never disassemble a battery.

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

Keep batteries between 5°C and 25°C for prolong storage.

Section 9 - Physical/ Chemical Characteristics

Boiling Point	Specific Gravity(H ₂ 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)

Hazardous Decomposition or Byproducts

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	✓	

Section 11 — Toxicological information

Route(s) of Entry	Inhalation?	Skin?	Ingestion?
	N.A.	N.A.	N.A.

Health Hazard (Acute and Chronic) / Toxicological information

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

Note: N.A.means not applicable.

Section 12 — Ecological information

Lithium-manganese dioxide battery is a kind of new-generation chemical battery, it is environment-friendly and the products are in compliance with EU ROHS directive. It is not dangerous to human or environment. Cadmium, Lead, and mercury or other dangerous chemicals are not included in the battery.

Section 13 — Disposal Consideration

Dispose of the batteries according to the government regulations.

Section 14 — Transport information

In general, the transportation of primary lithium cells and batteries is regulated by the International Civil Aviation Organization, International Air Transport Association, International Maritime Dangerous Goods Code and the US Department of Transportation. The batteries must meet the following criteria for shipment:



- ① For air shipments, meet the requirements listed in Special Provision A45 of the International Air Transport Association Dangerous Goods Regulations.
- ② With limited exceptions, the transport of primary lithium batteries is prohibited aboard passenger aircraft. Refer to December 15, 2004 Federal.
- ③ Register (Hazardous Materials; Prohibition on the Transportation of Primary Lithium Batteries and cells Aboard Passenger Aircraft; Final Rule) for additional rules that became effective on December 29, 2004.

By complying with the requirements specified above, Lithium Batteries are not otherwise regulated as Dangerous Goods.

Lithium Batteries manufactured, packed and shipped by LIBA meet the requirements specified above. Any Lithium Batteries subsequently repackaged or reshipped are required to meet all of the requirements, Lithium Batteries manufactured, packed and shipped by LIBA meet the requirements of government regulations.

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.