

No.: HCB-WI-MSDS-02-033

Material Safety Data Sheet

Name of Goods: Li-SOCL2 Cylindrical Battery

(Lithium Battery)

Commissioned by: <u>HCB BATTERY CO., LTD</u>

Manufacturer: HCB BATTERY CO., LTD

HCB BATTERY CO., LTD

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Material Safety Data Sheet

1. Identification of the product and supplier			
Name of goods	Li-SOCL2 Cylindrical Battery (Lithium Battery)		
Type/Mode	ER261020M 3.6V 12500mAh 45Wh		
Commissioned by	HCB BATTERY CO., LTD		
Commissioner address	Special NO.1, Taizhong Avenue, Gaoqiao Industrial Park, Wujiashan Economic Development Zone, Wuhan Hubei China		
Manufacturer	HCB BATTERY CO., LTD		
Manufacturer address	Special NO.1, Taizhong Avenue, Gaoqiao Industrial Park, Wujiashan Economic Development Zone, Wuhan Hubei China		
Inspection according to	UN Manual of Tests and Criteria Part III subsection 38.3; IATA Dangerous Goods Regulations (IATA DGR) (58th); International Maritime Dangerous Goods Code .		
Emergency telephone call	+86-27-83265161		
Contact	Yan Xie		
Certification Date	2017-01-03 Jan 03, 2017		

Approved by:Ruan Honglin Reviewed by: Wangfeng Tested by:Liang Yuli



COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL OR INGREDIENT	Wt %	CAS NO.	
Lithium	2.0~3.5(3.60g)	Not specified	_
Carbon	3.5~4.5	Not specified	
Thionyl chloride	25.0~30.0	7719-09-7	_
Lithium Aluminum Tetrachloride	4.0~5.0	14024-11-4	_
Fibergla material	0.5~1.0	14808-60-7	_
Stainless Steel	25.0~35.0	Not specified	—
Others	20.0~25.0	Not specified	
45Wh			

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

The product contains corrosive 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

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

Measures for electrolyte leakage from the battery

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

7. Handling and Storage

—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 $\leq 30^{\circ}$ C Humidity $\leq 75^{\circ}$ RH..

8. Physical and chemical properties

Appearance: Cylindrical shape Nominal voltage: 3.6Volts

9. Stability and reactivity

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

Acute toxicity: Not specified Irritation: Irritating to eyes and skin Mutagenicity: Not specified Chronic toxicity: Not specified

11. Ecological information

-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

-When the battery is worn out, dispose of it under the ordinance of each local

government the law issued by relating government.

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

13. Transport information

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 IA.

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.
- —When the goods by air, the package does not exceed 35kg gross mass. When the goods by sea, the package does not exceed 30kg gross mass.

14. Regulation information

- —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

- -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.