

MSDS Report

ACCREDITATION CERTIFICATE OF CHINA NATIONAL
ACCREDITATION BOARD FOR LABORATORIES (No.L0412)

Samples Electronical control part and battery

Client Unit CIXI E-CIG TECHNOLOGH INC., LTD.

Client Address NO. 145 DanShan N. RD 2-4 F1 High-Tech Building,
Cixi City, Zhejiang China

Shanghai Pony Test Technical Co., Ltd.
<http://www.ponytestsh.com>



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Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Sample Name: Electronical control part and battery

Synonyms: --

Molecular Formula: --

Company Identification: CIXI E-CIG TECHNOLOGH INC., LTD.

Mainland Address: NO. 145 DanShan N. RD 2-4 F1 High-Tech Building, Cixi
City, Zhejiang China

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Section 2 - Composition, Information on Ingredients

Chemical Name	CAS No.	EINECS
Lithium battery (90% by weight)		
Lithium	7439-93-2	231-102-5
Manganese dioxide	1313-13-9	215-202-6
Steel	12597-69-2	NA
Lithium perchlorate	7791-3-9	232-237-2
Propylene carbonate	108-32-7	203-572-1
Electronical components (5% by weight)		
PCB board (10% by weight)		
Wire (5% by weight)		

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! The battery pack and enclosed cells should not be opened, disassembled, crushed, burned, or exposed to high temperatures.

Exposure to the ingredients contained within the battery pack could be harmful under some circumstances. In case of exposure to cell contents, wash affected area for at least 15 minutes with generous amounts of water and seek medical attention. Fires involving these types of battery packs should be extinguished with any available extinguishing media.

Target Organs: No data available

Hazard Sorts: 9

Potential Health Effects:

- **Eye:** In normal use, no chemical risk.
- **Skin:** In normal use, no chemical risk.
- **Ingestion:** In normal use, no chemical risk.
- **Inhalation:** In normal use, no chemical risk.

Other risk: On some bad using conditions (high over charge, inverse charge, external short circuit...) and in case of a bad functioning, some electrolyte can be removed from the cell by the security vent. In these cases the risk is the caustic nature of electrolyte. The toxic properties of the electrode materials are hazardous only if the materials are released by damaging the cell or if exposed to fire.

Section 4 - First Aid Measures

- | | |
|--------------------|---|
| Eye: | Rinse immediately with plenty of water during at least 15-30 minutes. Immediate hospital treatment. |
| Skin: | Rinse immediately with plenty of water. Medical treatment. |
| Ingestion: | If the injured is fully conscious: plenty of drink, preferably milk. Do not induce vomiting. Immediate hospital treatment. |
| Inhalation: | Fresh air. Rinse mouth and nose with water. Medical treatment. |

Section 5 - Fire Fighting Measures

- | | |
|-----------------------------|--|
| General Information: | Cells can be overheated by an external source or by internal shorting. Toxic vapor may release in case of fire. As in any fire, wear a self-contained |
|-----------------------------|--|



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breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Class D-Dry chemical powder, sand is suitable. Do NOT use water.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Remove heat and sources of ignition. Collect, then place into a suitable container for disposal. Avoid shake and physical damage. Keep unnecessary people away.

Section 7 - Handling and Storage

Storage: Keep out of direct sunlight. Store in cool place (temperature: -20 ~ 35 degree C, humidity: 45 ~ 85%)

Handling: No hazards during handing, no electrolyte can pour out of the sealed battery.

Section 8 - Exposure Controls, Personal Protection

Exposure Limit:

- **Composition: Lithium**
 - None listed
- **Composition: Manganese dioxide**
 - None listed
- **Composition: Steel**
 - None listed
- **Composition: Lithium perchlorate**
 - None listed
- **Composition: Propylene carbonate**
 - None listed

Monitoring Methods: No information found.

Engineering Controls: No information found.

Personal Protective Equipment:

- **Eye:** Under normal condition of use and handling no special protection is required for sealed battery.
- **Skin:** Under normal condition of use and handling no special protection is required for sealed battery.
- **Clothing:** Under normal condition of use and handling no special protection is required for sealed battery.
- **Respirators:** Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Solid, silver cover
Odor:	Odorless
Molecular Formula:	N/A
Molecular Weight:	N/A
Specific Gravity/Density:	N/A
pH:	N/A
Viscosity:	N/A
Boiling Point:	N/A
Freezing/Melting Point:	N/A
Ignition Temperature:	N/A
Flashing Point:	N/A
Decomposition Temperature:	N/A
Solubility:	N/A
Major Use:	Electronic and electrical apparatus

Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal use.
Conditions to Avoid:	When a battery cell is exposed to an external short-circuit, crushed, modification, high temperature above 100 degree C, it will be the cause of heat generation and ignition.



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Incompatibilities with Other Materials:	Direct sunlight and high humidity.
Hazardous Decomposition Products:	Conductive materials, water, seawater, strong oxidizers and acids.
Hazardous Polymerization:	Harmful gas is emitted during fire.
	No information available.

Section 11 - Toxicological Information

Toxicological Information

- **Composition: Manganese dioxide**
 - **LD50: >3478 mg/kg(oral, rat)**

Carcinogenicity:	No information available.
Sensitization Rate:	No information available.
Teratogenicity:	No information available.

Section 12 - Ecological Information

Ecological Toxicity:	No information available.
Ecological Degradation:	No information available.
Abiology Degradation:	No information available.
Aquatic Toxicity:	No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Section 14 - Transport Information

UN:	3091
Classification:	9

Packaging Sign:



Shipping Name:

**LITHIUM BATTERIES CONTAINED IN
EQUIPMENT or LITHIUM BATTERIES PACKED
WITH EQUIPMENT**

Packaging Category:

II

Packaging Method:

N/A

Shipping Notice:

N/A

Section 15 - Regulatory Information

Regulatory Information: Reference to the local, national and EU / international regulations.

Hazard Symbols:

C:	Corrosive
F:	Flammable
N:	Dangerous for the environment
O:	Oxidizing agent

Safety Description:

S8:	Keep container dry.
S17:	Keep away from combustible material.
S25:	Avoid contact with eyes.
S43C:	In case of fire use limestone powder, sodium chloride or dry sand (never use water).
S45:	In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

Risk Codes:

R9:	Explosive when mixed with combustible material.
R14/15:	Reacts violently with water, liberating highly flammable gases.
R20/22:	Harmful by inhalation and if swallowed.
S34:	Causes burns.
S36/37/38:	Irritating to eyes, respiratory system and skin.

Section 16 - Additional Information

Issue Time: 2008-11-13

Issue Department: Technical department

Data review unit:

Modification record:

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Other Information:

ACGIH: (American Conference of Governmental Industrial Hygienists) ;CAS: (Chemical Abstracts Service) ;DOT: (Department of Transportation) ;DSL: (Domestic Substances List) ;EINECS: (European Inventory of Existing Commercial Substances) ;IARC: (International Agency for Research on Cancer) ;IATA: (International Air Transport Association) ;ICAO: (International Agency for Aviation Organization) ;IMDG: (International Maritime Dangerous Goods) ;LC50: Lethal Concentration, 50 percent kill;LD50: Lethal dose, 50 percent kill;NIOSH: (National Institute for Occupational Safety and Health) ; N.O.S: Not Otherwise Specified;NTP: (National Toxicology Program) ; PEL: (Permissible Exposure Level);REL: (Recommended Exposure Limit) ;STEL: (Short Term Exposure Limit) ;TDG: (Transportation of Dangerous Goods) ;TSCA: (Toxic Substances Control Act) ;TWA: (Time Weighted Average)