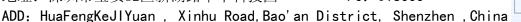
SHENZHEN TIANXIANGRUI INDUSTRIAL Co., Ltd

地址:深圳市宝安82区新湖路华丰科技园

PC: 518000



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Material Safety Data Sheet Button Type CR Lithium cell

## Document Number: MSDS – CR 2016 Revision:00

IDENTITY (As Used on Label and List)

Note: Blank spaces are not permitted if any item is not applicable or no information is available, the space must be marked to indicate that.

#### Section I

Manufacturer's Name

SHENZHEN TIANXIANRGUI CO.,LTD

Emergency Telephone Number 0755-29563809

HuaFengKeJIYuan, Xinhu Road, Bao'an District, Shenzhen, China

Emergency

0755-29563809

Signature of Preparer (optional)

## Section II - Hazardous Ingredients / Identity Information

**IMPORTANT NOTE:** The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

MATERIAL OR INGREDIENT	PEL (OSHA)	TLV (ACGIH)	%/wt.	
INGREDIENI	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	0-1	
1,2-Dimethoxyethane	None established	None established	0-6	
1,3-Dioxolane	None established	None established	0-8	
Graphite	15 mg/m³ TWA (total dust)	2 mg/m³ TWA (respirable 0-3 fraction)		
	5 mg/m <sup>3</sup> TWA (respirable fraction)			
Lithium or Lithium Alloy	None established	None established	1-6	
Lithium Perchlorate	None established	None established		
Lithium	None established None established		0-3	
Trifluoromethanesulfonate				
Lithium	None established	None established	0-3	
Trifluoromethanesulfonimid	e			
Manganese Dioxide	5 mg/m <sup>3</sup> Ceiling (as Mn)	0.2 mg/m <sup>3</sup> TWA (as Mn)	12-42	
Propylene Carbonate	None established	None established	0-8	

### **Section III - Physical / Chemical Characteristics**

Boiling Point N.A.

Specific Gravity (H2O=1) N.A.

Vapor Pressure (mm Hg) N.A.

Melting Point N.A.

Vapor Density (AIR=1) N.A.

Evaporation Rate (Butyl Acetate) N.A.

Solubility in Water N.A.

Appearance and Odor Cylindrical Shape, odorless

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### Material Safety Data Sheet

## Button Type CR Lithium cell

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Section IV	. Fire and	Explosion	<b>Hazard Data</b>
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Flash Point (Method Used) N.A.

Flammable Limits N.A.

LEL N.A.

UEL N.A.

Extinguishing Media N.A.

Special Fire Fighting Procedures N.A.

Unusual Fire and Explosion Hazards

Do not dispose of battery in fire - may explode.

Do not short-circuit battery – may cause burns.

#### Section V – Reactivity Data

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 VI - Health Hazard Data

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.

In contact with electrolyte can cause severe irritation and chemical burns.

Inhalation of electrolyte vapors may cause irritation of the upper respiratory tract and lungs.

#### Section VII – First Aid Measures

First Aid Procedures

If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately.

If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15) minutes, and contact a physician.

If electrolyte vapors are inhaled, provide fresh air and seek medical attention if respiratory irritation develops. Ventilate the contaminated area.

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### Material Safety Data Sheet

Protective Gloves

N.A.

## Button Type CR Lithium cell

**Document Number: MSDS - CR2016 Revision:00** Page 3 of 4 Section VIII - Fire and Explosion Hazard Data Flash Point (Method Used) N.A. Ignition Temp. N.A. Flammable Limits N.A. LEL N.A. UEL N.A. Extinguishing Media Carbon Dioxide, Dry Chemical or Foam extinguishers Special Fire Fighting Procedures N.A. Unusual Fire and Explosion Hazards Do not dispose of battery in fire - may explode. Do not short-circuit battery - may cause burns. Section IX - 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 X - 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 -30°C and 35°C for prolong storage. Section XI - Exposure Controls / Person Protection Occupational Exposure Limits: LTEP N.A. STEP NΑ Respiratory Protection (Specify Type) N.A. Ventilation Local Exhausts N.A. Special N.A. Mechanical (General) N.A. Other N.A.

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QHK 01392

## Material Safety Data Sheet

## Button Type CR Lithium cell

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Eye Protection

N.A.

Other Protective Clothing or Equipment

Work / Hygienic Practices

Section XII - Ecological Information

Section XIII - Disposal Method

Dispose of batteries according to government regulations.

**Section XIV – Transportation Information** 

Section XV - Regulatory Information

Special requirement be according to the local regulatories.

**Section XVI – Other Information** 

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

Section XVII - Measures for fire extinction

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if

exposed to fire to prevent rupture.

Fire fighters should wear self-contained breathing apparatus.