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# 1. IDENTIFICATION

### **Product Identifier**

Name of Product: Lithium-ion Rechargeable Battery

# Other means of identification

Product Models: 23-0J070-0D7

Nominal Voltage:14.4V Nominal capacity:5000mAh

Nominal power:72Wh

**Weight:** 397.5g

# Recommended use of the chemical and restriction on use

**Recommended Use:** Rechargeable Li-ion Battery **Restriction On Use:** No information available

# **Information Of Supplier:**

**Company Name:** FUJI ELECTRONICS(SHENZHEN)CO.,LTD.

Address: BLDG 10, 2RD INDUSTRIAL PARK TANGXIAYONG, SONGGANG BAOAN, GUANGDONG

518105, P. R. China

**Zip code:** 518105

Contact person: Li Yanqing Tel: +86- 0755-33893788

E-mail: liyanging@fujielectronics.com.cn

### **Emergency Telephone**

+86-0755-33893788

# 2. Hazard(s) Identification

# **Classification:**

This product is an article which is a sealed battery and as such does not require an SDS per the OSHA hazard communication standards unless ruptured. The sealed Li-ion Battery is not hazardous in normal use.

# Signal Word: No signal word

### **Hazard Statements and Symbol**

Hazard statement: No hazard statement

Pictogram(s): No pictogram

Precautionary Statements: No Precautionary Statements

## Description of any hazards not otherwise classified

In case of mistreatment(abusive over charge, reverse charge, external short circuit...) and in case of fault some electrolyte can leak from the cell through the safety device. In these case refer to the risk of the electrolyte. Contact with internal components may cause irritation or severe burns. Irritating to eyes, respiratory system and skin. The electrode materials are only hazardous, If the material are released by mechanical damaging of the cell or if exposed to fire.

#### Skin touch

Contact with battery electrolyte may cause burns and skin irritation.

# Eye touch

Contact with battery electrolyte may cause burns. Eye damage is possible.

#### Inhalation

Inhalation of a large number of vapors or fumes released due to heat may cause respiratory.

### Ingestion

Ingestion of battery contents may cause mouth, throat and intestinal burns and damage.

# **Unknown Toxicity**

No information available.

# 3. Composition/Information on Ingredients

Chemical Name	CAS No.	Weigh%
Lithium Cobalt Oxide	12190-79-3	35.05
Graphite Powder	7782-42-5	15.98
Rubber	69028-37-1	10.36
Carbon black	1333-86-4	0.79
Styrene-butadiene rubber (SBR)	61789-96-6	0.71
Polypropylene	9003-07-0	1.74
Polyethylene	9002-88-4	1.27
Lithium hexafluorophosphate	21324-40-3	1.27
Ethylene carbonate (EC)	96-49-1	6.34
Diethyl carbonate (DEC)	105-58-8	4.76
Propylene carbonate(PC)	108-32-7	1.11
Polycaprolactam(NYLON6)	25038-54-4	1.11
Copper	7440-50-8	8.39
Aluminium	7429-90-5	11.12

## 4. First Aid Measures

### **General Advice**

First aid is Applicable only in the case of cell rupture.

### Skin Contact:

Washing immediately with plenty of water and soap for at least 15 minutes. In the case of skin irritation or allergic reaction see a physician.

# Eye contact:

If symptoms persist, call a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area.

# Inhalation of Vented Gas:

Remove to fresh air. If symptoms persist, call a physician. Get medical attention immediately if symptoms occur.

### Ingestion:

Do not induce vomiting. Rinse mouth immediately and drink plenty of water. Call a physician or poison control center immediately.

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# Most important symptoms and effects, both acute and delayed

Contact with internal components may cause allergic skin sensitizations (rash) and irritate eyes, nose, throat, respiratory system. Cobalt and cobalt compounds are considered to be possible human carcinogen(s).

# Indication of any immediate medical attention and special treatment needed

No information available

# 5. Fire -Fighting Measures

### Suitable Extinguishing Media

Usefoam, dry powder or dry sand, CO<sub>2</sub> as appropriate.

# Unsuitable Extinguishing Media:

CAUTION: Use of water spray when fighting fire may be inefficient.

# **Specific Hazards Arising from the chemical**

Under fire conditions, batteries may burst and release hazardous decomposition products when exposed to fire situation. This could result in the release of flammable or corrosion materials.

# **Hazardous Combustion product:**

CO, CO<sub>2</sub>, Metals oxides, Irritating fumes.

# Protective equipment and precautions for firefighters

Firefighters must wear fire resistant protective equipment and appropriate breathing apparatus. The staff must equipment filtermask(full mask) or isolated breathing apparatus. The staff must wear the clothes which can defense the fire and the toxic gases. Put out the fire in the upwind direction. Remove the container to open space as soon as possible. Spray water on the containers in the fireplace to keep them cool until finish extinguishment.

### 6. Accidental Release Measures

# Personal precautions, protective equipment and emergency procedures

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The preferred response is to leave the area, dispose the case after the batteries cool and vapors dissipate. Provide maximum ventilation. Avoid contact with skin, eyes or inhalation of vapors.

### **Methods for containment**

Prevent further leakage or spillage if safe to do so.

## Methods for cleaning up

Collect all released material in a plastic lined container. Dispose off according to the local law and rules. Avoid leached substances to get into the earth, canalization or waters.

# 7. Handling and Storage

# Precaution for safe handling

Always follow the warning information on the batteries and in the manuals of devices. Only use the recommended battery types. Keep batteries away from children. For devices to be used by children, the battery casing should be protected against unauthorized access. Unpacked batteries shall not lie about in bulk. In case of battery change always replace all batteries by new ones of identical type and brand. Do not swallow batteries. Do not throw batteries into water. Do not throw batteries into fire. Avoid deep discharge. Do not shirt-circuit batteries use recommended charging time and current.

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# Conditions for safe storage, including any incompatibilities

### Storage:

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. If battery is subject to storage for such a long term as more than 3months, it is recommended to recharge the battery periodically.

Incompatible products: Strong acids. Strong oxidizing agent.

# 8. Exposure Controls/Personal Protection

### **Control parameters**

Not established

# **Appropriate engineering controls**

Under normal conditions( during charge and discharge) release of ingredients does not occur.

# Individual protection measures

### Respiratory protection:

No personal respiratory protective equipment normally required. In case of inadequate ventilation wear respiratory protection

# Eye /face protection:

No personal protective equipment normally required.

### Skin protection:

Wear protective clothing to prevent contact

## Hand protection:

Wear protective gloves

# 9. Physical and Chemical Properties

Physical State: Solid

Odor: Odorless

Odor Threshold: No information available

pH:No data available

Melting/freezing point: No data available

Boiling point/boiling range: No data available

Flash Point: No data available

Evaporation Rate: No data available

Flammability(Solid, gas): No data available

Flammability Limit in Air:

Upper flammability limit: No data available

Lower flammability limit: No data available

Vapor pressure: No data available

Vapor density: No data available

Specific Gravity: No data available

Solubility: Insoluble in water

Partition coefficient:n-octanol/water: No data available

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Autoignition temperature: No data available

**Decomposition temperature:**No data available

Kinematic viscosity: No data available

Dynamic viscosity: No data available

# 10. Stability and Reactivity

## Reactivity:

No data available

### **Chemical stability:**

Stable under recommended storage conditions.

### **Possibility of Hazardous Reactions:**

When heated above  $150^{\circ}$ C the risk of rupture occurs. Due to special safety construction, rupture implies controlled release of pressure without ignition

#### Conditions to avoid:

Do not subject battery to mechanical shock. Keep away from open flames, high temperature.

### Incompatible materials:

Strong acids, strong oxidizing agents.

## **Hazardous decomposition products:**

Under fire conditions, the electrode materials can form carcinogenic cobalt oxides

# 11. Toxicological Information

# Information on likely routes of exposure

#### Inhalation:

Inhalation of a large number of vapors or fumes released due to heat may cause respiratory.

### **Eye Contact:**

Contact with battery electrolyte may cause burns. Eye damage is possible.

#### **Skin Contact:**

Contact with battery electrolyte may cause burns and skin irritation.

### Ingestion:

Ingestion of battery contents may cause moth, throat and intestinal burns and damage.

Under normal conditions (during charge and discharge) release of ingredients does not occur. If accident release occurs see information in section 2,3, and 4. Swallowing of battery can be harmful. Call the local Poison Control Centre for advice and follow-up.

## Information on toxicological characteristics

## Acute toxicity:

No data available.

#### Skin corrosion/irritation:

The liquid in the battery irritates.

### Serious eye damage/ irritation:

The liquid in the battery irritates.

### **Respiratory sensitization:**

The liquid in the battery may cause sensitization to some person.

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#### Skin sensitization:

The liquid in the battery may cause sensitization to some person.

### **Carcinogenicity:**

Cobalt and Cobalt compounds are considered to be possible human carcinogen(s)

### **Germ Cell Mutagencity:**

No data available.

### **Reproductive Toxicity:**

No data available.

### **STOT-single Exposure:**

No data available.

## STOT-repeated Exposure:

No data available.

### **Aspiration Hazard:**

No data available.

# 12. Ecological Information

### **Ecotoxicity:**

Water hazard class1(Self-assessment): slightly hazardous for water

# Persistence and Degradability:

No information available

#### **Bioaccumulation:**

No information available

#### Other adverse effects:

No information available

# 13. Disposal Considerations

## Waste treatment methods

### **Disposal methods:**

Should not be released into the environment.

#### **Contaminated Packaging:**

Dispose of in accordance with federal, state and local regulations.

# 14. Transportation Information

According to Packing Instruction 965-970 of IATA DGR 58th Edition for transportation, the special provision 188 of IMDG( inc Amdt38-16). The batteries should be securely packed and protected against short-circuits. Examine whether the package of the containers are integrate and tighten closed before transport. Take in cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles. Don't put the goods together with oxidizer and chief food chemicals. The transport vehicle should prevent exposure, rain and high temperature. For stopovers, the vehicle should be away from fire and heat sources. When transported by sea, the assemble place should keep away from bedroom and kitchen, and isolated from the engine room, Power and fire sources. Under the condition of road transportation, the driver should drive in accordance with regulated route, don't stop over in the residential area and congested area. Forbid to use wooden, cement for bulk transport:

Lithium batteries shipped as "Lithium batteries", Lithium batteries packed with equipment", or "lithium

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batteries contained in equipment" may not be classified as "No Dangerous Goods" when shipped in accordance with Packing Instruction 965-970 of IATA-DGR" or "Special provision 188of IMO-IMDG Code".

**DOT: NOT REGULATED** 

Proper Shipping Name: NON REGULATED

Hazard Class: N/A
TDG: Not regulated
MEX: Not regulated
ICAO: Not regulated
IATA: Not regulated

Proper Shipping Name: NON REGULATED

Hazard Class: N/A

IMDG/IMO: Not regulated

Hazard Class: N/A
Ems No.: F-A,S-1
RID: Not regulated
ADR: Not regulated
AND:Not regulated

# 15. Regulatory information

OSHA hazard communication stan	idard (29 CFR	1910.1200)
Hazardous		Non-hazardous

### 16. Other Information

### Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used material used in combination with any other materials or in any process, unless specified in the test

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--- End of SDS ---