

# MSDS 报告

## MSDS Report

表单编号:F-WI-Q-BU1-0059-1/A0

样品: 锂离子电池 BLPC75

Samples: Rechargeable Li-ion Battery BLPC75

供应商单位: 欣旺达电子股份有限公司

Supplier Unit: SUNWODA ELECTRONIC CO., LTD.

供应商地址: 中国深圳市宝安区石岩街道石龙社区颐和路2号

Supplier Address: No.2,Yihe Rd,Shilong Community,Shiyan Street,Baoan District, Shenzhen City,China

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## 材料安全数据表

### Material Safety Data Sheet

#### 第一部分 产品及企业标识

##### Section 1 – Chemical Product and Company Identification

产品名称：锂离子电池

**Product Name: Rechargeable Li-ion Battery**

样品型号/ Sample Code: BLPC75

制造商：欣旺达电子股份有限公司

**Manufacturer: SUNWODA ELECTRONIC CO., LTD**

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**Address: No.2,Yihe Rd, Shilong Community, Shiyan Street, Baoan District, Shenzhen City,China**

邮政编码 / Post Code: 518108

电话号码/ Tel: 0755-29516888

紧急电话/ Emergency Telephone: 0755-29516888

传真/ Fax: 0755-29516999

电子邮件/ E-mail:lichunzhi@sunwoda.com

#### 第二部分 危险识别

##### Section 2 –Hazards Identification

健康危害（急性和慢性）

化学品必须密封保存。以机械或者电动方式滥用电池会发生泄漏危险。避免皮肤和眼睛接触受挤压喷出的锂电解质溶液。

**Health Hazards (Acute and Chronic)**

These chemicals are contained in a sealed can .Risk of exposure occurs only if the battery is mechanically or electrically abused. Contact of electrolyte and extruded lithium with skin and eyes should be avoided.

暴露迹象/症状

接触短路锂离子电池会对皮肤造成热灼伤和化学灼伤，可能影响甚至威胁到皮肤的再生。

**Sign/Symptoms of Exposure**

A shorted lithium battery can cause thermal and chemical burns upon contact with the skin.

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May be a reproductive hazard .

### 第三部分 成分/组成信息

#### Section 3 – Composition/Information on Ingredient

Hazardous Ingredients	%	CAS Number
Aluminum Foil	2-10	7429-90-5
Ithium Cobalt Oxide (proprietary)	20-50	12190-79-3
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9
Styrene Butadiene Rubber(SBR)	<5	9003-55-8
Copper Foil	2-10	7440-50-8
Carbon (proprietary)	10-30	7440-44-0
Electrolyte (proprietary)	10-20	21324-40-3
Aluminum flim、 Aluminum tab、 Nickel tab and inert materials	Remainder	N/A

### 第四部分 急救措施

#### Section 4 – First Aid Measures

##### 眼睛

一旦接触，立即用大量清水冲洗至少 15 分钟，翻起上下眼睑，直至化学残留物消失为止。立即就医。

##### Eyes

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

##### 皮肤接触

除去被污染的衣服，用大量清水冲洗皮肤 15 分钟。迅速就医。

##### Skin

Remove contaminated clothes and rinse skin with plenty of water of shower for 15 minutes. Get medical aid.

##### 吸入

立即远离泄露发生处，移至空气清新处。如有必要进行输氧。

##### Inhalation

Remove from exposure and move to fresh air immediately. Use oxygen if available.

##### 食入

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一旦误食，喝至少两杯牛奶或水。若患者意识清醒，立即催吐，迅速就医。

### **Ingestion**

Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

## **第五部分 消防措施**

### **Section 5 – Fire Fighting Measures**

**闪点 / Flash Point:**不适用/ N/A

**自燃温度/ Auto-Ignition Temperature:** 不适用/ N/A

**灭火器 / Extinguishing Media:**干粉，二氧化碳/ Dry powder, CO<sub>2</sub>

**特殊消防方式:** 运用自给式呼吸器

**Special Fire-Fighting Procedures:** Self-contained breathing apparatus.

**不寻常的起火和爆炸危险:** 电池内部过分热膨胀可能会造成电芯漏液。

**Unusual Fire and Explosion Hazards:** Cell may vent when subjected to excessive heat-exposing battery contents.

**危险氧化物:** 一氧化碳、二氧化碳、锂氧化物气体

**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide, lithium oxide fumes.

## **第六部分 泄漏应急处理**

### **Section 6 – Accidental Release Measures**

**物质泄漏释放时应采取的措施**

如果电池发生物质泄漏，立即疏散人员直到气体完全消散。最大程度保证通风，清楚有害气体。用布擦除干净后将损坏的电池装入塑料袋密封并放入钢制容器内。

### **Steps to be Taken in case Material is Released of Spilled**

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can.

另一种处理方式是迅速离开该区域，待电池冷却和气体消散。最大程度保证通风。避免眼睛和皮肤接触或者吸入气体。运用吸附剂焚烧的方法清除溅出的液体。

The preferred response is to leave the area and allow the batteries to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors.

Remove spilled liquid with absorbent and incinerate.

### **废弃物处置方法**

按照地方和国家法律法规的要求处置废弃电池，将电池完全放电后，交由相关部门

进行处理。

### **Waste Disposal Method**

It is recommended to discharge the battery to the end, handing in the abandoned batteries to related department unified, dispose of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental protection agency and/or federal EPA.

## **第七部分 操作和储存**

### **Section 7 –Handling and Storage**

请勿拆卸，损毁和焚烧电池，防止密封在电池中的物质泄漏释放到周围的环境中造成污染。

切勿造成电池短路，勿过分充电，勿将电池投入火中。请勿碾压和穿刺电池，勿将电池浸入水中。

The batteries should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container.

Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire.

Do not crush or puncture the battery, or immerse in liquids.

### **操作和存储时的注意事项**

避免机械和电动形式的电池滥用。存储在凉爽、干燥、通风的地方，确保温度变化不大。避免高温存储。存储电池时，不要靠近发热的机器设备，也不要长时间直接暴露在阳光下。

### **Precautions to be taken in handling and storing**

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change .Storage at high temperatures should be avoided.

Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

### **其他注意事项**

勿拆卸、碾压电池，勿将其暴露在明火或者高温下，否则会爆炸或造成烧伤。请勿错误安装正负极，请勿造成电池短路。

### **Other Precautions**

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

## **第八部分--接触控制/个人防护**

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## **Section 8 –Exposure Controls, Personal Protection**

### **呼吸系统防护**

电池一旦泄露，要尽可能保证足够的通风。避免将泄露的电池放在狭窄空气流通不畅的地方。常规使用时不需要呼吸系统防护。

### **Respiratory Protection**

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting batteries. Respiratory Protection is not necessary under conditions of normal use.

### **通风设备**

正常使用时不需要通风设备。

### **Ventilation**

Not necessary under conditions of normal use.

### **防护手套**

正常使用时不需要。

### **Protective Gloves**

Not necessary under conditions of normal use.

### **其他防护服装或装备：**

正常使用时不需要。防护措施和设备除了防护手套和防护服，还包括带侧防的安全玻璃。

### **Other Protective Clothing or Equipment**

Not necessary under conditions of normal use.

Protection, Protective Gloves, Protective Clothing and safety glass with side shields .

## **第九部分 理化特性**

## **Section 9 –Physical and Chemical Properties**

**标称电压/ Nominal Voltage: 3.88V**

**额定容量/ Rated Capacity: 5830mAh**

**外观特征/ Appearance characters: 无嗅固体电池/ Appearance characters**

## **第十部分 稳定性和反应活性**

## **Section 10 –Stability and Reactivity**

**稳定性：**在正常的储存和操作条件下稳定。

**Stability:** Stable

**避免接触的条件：**过热、机械振动和电动滥用

**Conditions to Avoid :** Heating, mechanical abuse and electrical abuse.

**危害的分解产物 / Hazardous Decomposition Products:** 不适用/ N/A.

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危害的聚合反应 / **Hazardous Polymerization:** 不适用 / N/A.

如果泄露，严禁使其接触强氧化剂、矿物酸、强碱和卤代烃。

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.

## 第十一部分 毒理学资料

### Section 11 –Toxicological Information

电池若被拆卸，有害物质可能会被吸入，也可能接触眼睛和皮肤。

电池内部物质暴露，腐蚀性烟气将会刺激皮肤、眼睛和粘膜；过分暴露会造成非纤维化的肺损伤和粘膜刺激。

Inhalation, skin contact and eye contact are possible when the battery is opened.

Exposure to internal contents, the corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibrosis lung injury and membrane irritation.

## 第十二部分 生态学资料

### Section 12 –Ecological Information

正确使用和处置电池不会对环境产生危害。处置电池时，远离水源、雨水和雪水。

When promptly used or disposed the battery does not present environmental hazard. When disposed, keep away from water, rain and snow.

## 第十三部分 废物处置

### Section 13 –Disposal Considerations

物质或制剂的处置方法

如果电池仍然被充分充电或者只是部分放电，这些电池可以被认为是活性危险废物，主要因为这些废弃电池中还存留有大量未耗尽的锂。这些电池在被当做危险废物处置之前，必须通过被认可的二次处理设施进行中和。电池回收可以通过使用许可的废弃物载体在相关的授权机构进行处理。

### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

If batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amount of not creation, or unconsumed lithium remaining in the spent battery. The batteries must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste. Recycling of battery can be done in authorized facility, through licensed waste carrier.

## 第十四部分 运输信息

## Section 14 –Transport Information

一般包装要求:

**General packaging requirement:**

1、电池必须加以保护,以防止短路。

The batteries must be protected so as to prevent short circuits.

2、电池外包装必须牢固。

The batteries must be packed in suitable strong outer packaging.

3、如果设备中包含电池,则必须包装固定好位置防止移动,防止意外激活。

If batteries contained in equipment, equipment must be secured against movement within the outer. packaging and be packed so as to prevent accidental activation.

正确的运输品名: 锂离子电池

**PROPER SHIPPING NAME:** Lithium-ion batteries

运输方式: 空运或海运

**Transport Fashion:** by air or by sea

国际空运危规按照 IATA-DGR(66 版)

**Air transportation, according to IATA-DGR 66<sup>th</sup> Edition**

自 2025 年 1 月 1 日至 12 月 31 日生效

**Effective 1 January-31December 2025**

联合国危险货物编号 UN Number + PSN	UN 3480, 锂离子电池 UN 3480, LITHIUM ION BATTERIES
危险等级 Hazard Class	类别 9 CLASS 9
包装要求 Packaging requirement	包装牢固,按照包装说明 965 IB 部分要求打包。 Strong package, packaging according to PACKING INSTRUCTION 965, section IB
联合国危险货物编号 UN Number + PSN	UN 3481, 装有设备的锂离子电池 UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT
危险等级 Hazard Class	不受限制 Not restricted
包装要求	包装牢固,按照包装说明 966-II 部分要求打包

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<b>Packaging requirement</b>	Strong package, packaging according to packing instruction 966, section II
联合国危险货物编号 <b>UN Number + PSN</b>	<b>UN 3481, 设备中包含的锂离子电池</b> <b>UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT</b>
危险等级 <b>Hazard Class</b>	不受限制 Not restricted
包装要求 <b>Packaging requirement</b>	包装牢固,按照包装说明 967-II 部分要求打包. Strong package, packaging according to packing instruction 967, section II
海上运输, 根据国际海事组织《国际海运危险货物规则》(第 42-24 版) <b>Maritime transportation, according to IMO IMDG Code (Edition 42-24)</b>	
联合国危险货物编号 <b>UN Number + PSN</b>	<b>UN 3480, 锂离子电池, 或</b> <b>UN 3481, 装有设备的锂离子电池</b> <b>UN 3480, LITHIUM ION BATTERIES, or</b> <b>UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT</b>
危险等级 <b>Hazard Class</b>	不受限制 Not restricted
包装说明 <b>Package instruction</b>	包装牢固, 根据特殊规定 188 的相应要求进行包装。 Strong package. Packaging in accordance to corresponding requirements of sp188
<b>EMS 编号 / EmS No</b>	F-A.S-I
公路运输, 根据 ADR-2025 <b>Road transportation, according to ADR-2025</b>	
联合国危险货物编号 <b>UN Number + PSN</b>	<b>UN 3480, 锂离子电池, 或</b> <b>UN 3481, 装有设备的锂离子电池, 或</b> <b>UN 3481, 设备中包含的锂离子电池</b> <b>UN 3480, LITHIUM ION BATTERIES, or</b> <b>UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, Or</b> <b>UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT</b>

<b>危险等级</b> <b>Hazard Class</b>	不受限制 Not restricted
<b>包装说明</b> <b>Package instruction</b>	包装牢固, 根据特殊规定 188 的相应要求进行包装 Strong package, Packaging in accordance to corresponding requirements of sp188
<b>EMS 编号 / EmS No</b>	F-A.S-I

## 第十五部分 法规信息

### Section 15 –Regulatory Information

#### 法规信息/Law Information

《危险品航空运输的行业规则》  
《Dangerous Goods Regulation》  
《关于危险货物运输的建议书规章范本》  
《Recommendations on the Transport of Dangerous Goods Model Regulations》  
《国际海运危险品法规》  
《International Maritime Dangerous Goods》  
《危险物品安全航空运输细则》  
《Technical Instructions for the Safe Transport of Dangerous Goods》  
《美国的职业安全与健康标准》  
《Occupational Safety and Health Act》 (OSHA)  
《美国有毒物质控制法》  
《Toxic Substances Control Act》 (TSCA)  
《超级基金修订与授权法第 III 部分 302、311、312、313 节》  
《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》 (SARA)  
《加利福尼亚州第 65 号提案》  
《California Proposition 65》  
《美国联邦法规》  
《Code of Federal Regulations》 (CFR)  
《全球化学品统一分类和标签制度》  
《Globally Harmonized System of Classification and Labeling of Chemicals》 (GHS)  
符合所有联邦、州和地方法律。

In accordance with all Federal, State and Local laws .

**第十六部分 其他信息**

**Section 16 –Additional Information**

本份 MSDS 只是基于当前我们所拥有的相关材料的信息编制而成的，只是为了描述本品的健康、 安全和环境需求。鉴于对以上信息的使用可能会超出我们的控制，其中涉及的一些数据变更可能会自然导致后续信息的变化，对此我们不对使用后果承担任何责任。所以本份 MSDS 不能作为使用本品实现任何特殊目的的保证，各有关使用者有责任预先完成本品的安全性和其他方面的测试，以评判其是否符合您的使用目的。

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