

材料安全数据表

Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 1 页 共 11 页

Page 1 of 11

委托单位 : 深圳市易检车服科技有限公司

Customer SHENZHEN SMARTSAFE TECH CO., LTD

地 址 : 深圳市龙岗区坂田街道岗头社区天安云谷产业园二期(02-08 地块)11 栋 3310

Address 3310, Building 11, Tianan Cloud Park, Bantian Street, Longgang District, Shenzhen, Guangdong, China

样品信息

Description of the submitted sample(s):

样品名称 : 可充电锂离子电池

Sample Name Rechargeable Lithium-ion Battery

样品型号 : ZXY 21700

Model/Type

商标

Trademark : /

标称电压

Nominal Voltage : 7.4V

额定容量

Rated Capacity : 10000mAh, 74Wh

制造商

Manufacturer Shenzhen Zhongxinyuan Lithium Energy Technology Co.,Ltd

地址

Address : 深圳市福田区沙头街道天安社区泰然四路泰然科技园 210 栋五层 5B53U  
5B53U, 5th Floor, Building 210, Tairan Science and Technology Park, Tairan Fourth Road, Tian an Community, Shatou Street, Futian District, Shenzhen, China.



李少帝

Approved by

李少帝

授权签字人

日期:

2025-01-02

Date

验证码:

4357171224

Check No.

华测检测认证集团股份有限公司

广东省深圳市宝安区 70 区鸿威工业园

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 2 页 共 11 页

Page 2 of 11

### 第 1 部分-化学产品和公司标识

#### Section 1- Chemical Product and company Identification

产品名称

Product Name:

可充电锂离子电池

Rechargeable Lithium-ion Battery

型号

Model/Type:

ZXY 21700

标称电压

Nominal Voltage:

7.4V

额定容量

Rated Capacity:

10000mAh, 74Wh

质量

Weight:

285.5g

制造商

Manufacturer:

深圳市忠芯源锂能科技有限公司

Shenzhen Zhongxinyuan Lithium Energy Technology Co.,Ltd

深圳市福田区沙头街道天安社区泰然四路泰然科技园 210 栋五层

5B53U

地址

Address:

5B53U, 5th Floor, Building 210, Tairan Science and Technology Park, Tairan Fourth Road, Tian an Community, Shatou Street, Futian District, Shenzhen, China.

电话

Tel:

15889418650

应急电话

Emergency Telephone:

15889418650

传真

Fax:

/

邮箱

E-mail:

13145980670@163.com

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 3 页 共 11 页

Page 3 of 11

### 第 2 部分-成分/组成信息

#### Section 2 –Composition /Information on ingredient

化学名称 Chemical Composition	CAS 编号 CAS NO.	含量百分比 (%) ercent of Content (%)
镍酸锂 Lithium nickel oxide	12031-65-1	25-35%
石墨 Graphite	7782-42-5	20~30%
铁 Iron	7439-89-6	10-20%
铜 Copper	7440-50-8	5-15 %
钴酸锂 Lithium cobaltate	12190-79-3	1-5%
丙酸甲酯 Methyl propanoate	554-12-1	1-5%
铝 Aluminium	7429-90-5	1-5%
六氟磷酸锂 Lithium Hexafluorophosphate	21324-40-3	1-3%
镍酸锂 Lithium nickel oxide	12031-65-1	25-35%

### 第 3 部分-危险概述

#### Section 3 – Hazards Identification

**接触途径:** 眼睛, 皮肤接触, 吞食。

**Primary Route(s) of Exposure:** Eye, skin contact, ingestion.

**健康危害:**

**Health Hazards:**

正常条件下根据制造商的说明使用电池不会产生危害。使用不当的情况下, 有破裂、起火、发烫、内部成分泄漏的危险, 并可能造成人员伤亡。电池破裂导致电解液外漏会导致以下伤害:

The batteries are not hazardous when used according to the instructions of manufacturer under normal conditions. In case of abuse, there's risk of rupture, fire, heat, leakage of internal components, with could cause casualty loss. Exposure to leaking electrolyte from ruptured or leaking battery can cause:

1. 吸入-灼伤和刺激呼吸系统, 可能会产生咳嗽、喘息和呼吸急促现象。

Inhalation - Burns and irritation of the respiratory system, coughing, wheezing, and shortness of breath.

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 4 页 共 11 页

Page 4 of 11

2. 眼睛-红肿, 疼痛, 灼伤。电解液对眼睛有腐蚀性。

Eyes - Redness, tearing, burns. The electrolyte is corrosive to all ocular tissues.

3. 皮肤-电解液有腐蚀性, 会刺激皮肤和灼伤皮肤。

Skin - The electrolyte is corrosive and causes skin irritation and burns.

4. 吞食-电解液会对咽喉和胃肠道造成组织损伤。

Ingestion - The electrolyte solution causes tissue damage to throat and gastrointestinal track.

### 第 4 部分-急救措施

#### Section 4 – First Aid Measures

##### 眼睛

##### Eyes

用大量的水冲洗眼睛至少 15 分钟, 偶尔翻起上下眼睑。获得医疗救助。

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

##### 皮肤

##### Skin

脱去被污染的衣服, 用大量的水冲洗皮肤, 淋浴 15 分钟。获得医疗救助。

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

##### 吸入

##### Inhalation

立即离开暴露的地方, 转移到新鲜空气中。如果可用, 请使用氧气。

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

##### 吞食

##### Ingestion

至少喝两杯牛奶或水。除非患者昏迷, 否则应催吐。打电话给物理治疗师。

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

### 第 5 部分-消防措施

#### Section 5 – Fire Fighting Measures

闪点: 不适用

Flash Point: Not Available.

自然温度: 不适用

Auto-Ignition temperature: Not Available.

灭火介质: 干燥的化学品, 二氧化碳

Extinguishing Media: Dry chemical, CO<sub>2</sub>

特殊消防程序: 佩戴自给式呼吸器

Special Fire –Fighting Procedures: Wear Self-contained breathing apparatus.

异常火灾和爆炸危险: 当电池过热时, 电池可能会排气, 从而暴露出电池内的物质。

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 5 页 共 11 页

Page 5 of 11

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

**有害燃烧产物:** 一氧化碳, 二氧化碳氧化物烟雾。

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

### 第 6 部分-泄露应急处理

#### Section 6 – Accidental Release Measures

##### 材料释放或溢出时应采取的措施

##### Steps to be taken in case Material is Released or Spilled

如果蓄电池材料被释放, 请将人员从该区域撤离, 直到烟雾消散。

If the battery material is released, remove personnel from area until fumes dissipate.

穿着适当的防护服, 将所有释放的不热或燃烧后的材料收集在适当的废物处理容器中, 并对该区域进行通风。

Collect the released material that are not hot or burning in an appropriate waste disposal container while wearing proper protective clothing and ventilate the area

##### 废物处理方法

##### Waste Disposal Method

将废弃电池交由有关部门统一处理, 按当地规定处理。

Handing in the abandoned batteries to related department unified, dispose of in accordance with local regulations.

### 第 7 部分-操作处置与储存

#### Section 7 – Handling and Storage

电池不应被拆解、挤压、投入火中或置于高温环境下。不要使端子短路, 或使蓄电池过度充电, 掷火。不要挤压或刺破电池, 或浸入液体中。

The batteries should not be disassembled, crushed, dispose into fire or exposed to high temperatures . Do not short circuit terminals, or over charge the battery , throw to fire. Do not crush or puncture the battery, or immerse in liquids.

##### 操作和储存时应采取的预防措施

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

避免机械或电气滥用。最好存放在凉爽、干燥和通风的地方。应避免在高温下储存。不要将电池放置在加热设备附近, 也不要长时间暴露在阳光直射下。

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area. 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

##### Other precautions

如果拆卸、压碎或暴露在火或高温下, 电池可能会爆炸或导致烧伤。不要短路或极性错误安装。

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 6 页 共 11 页

Page 6 of 11

not short or install with incorrect polarity.

### 第 8 部分-接触控制、个体防护

#### Section 8 – Exposure Controls, Personnel Protection

##### 呼吸防护

##### Respiratory Protection

呼吸保护：在正常使用条件下不需要。如果电池正在燃烧，请立即离开该区域。消防员在灭火时应使用自给式呼吸、全脸呼吸设备。可以灭火，但只能在安全的消防距离内，立即疏散火灾区域的所有人员。

Not necessary under conditions of normal use. If battery is burning, leave the area immediately. During fire fighting fireman should use self-contained breathing, full-face respiratory equipment. Maintain a safe fire extinguishing distance and immediately evacuate all personnel in the fire area.

##### 通风

##### Ventilation

正常使用条件下是不必要的。为了防止不合理的滥用，使用合适的机械通风设备排出电池产生的气体和烟雾。

Not necessary under conditions of normal use. In case of abuse, Use appropriate mechanical ventilation equipment to exhaust the gas and smoke generated by the battery

##### 防护手套

##### Protective Gloves

正常使用条件下是不必要的。处理泄漏或者破裂的电池时要戴上抗化学腐蚀的橡胶手套。

Not necessary under conditions of normal use. Wear chemical resistant rubber gloves when handling leaked or ruptured batteries.

##### 其他防护服或设备

##### Other Protective Clothing or Equipment

正常使用条件下是不必要的。清洁因电池泄漏而溢出的电池后，应彻底洗手。禁止在电池储存区内进食、饮水或吸烟。

Not necessary under conditions of normal use. Wash hands thoroughly after cleaning-up a battery spill caused by leaking battery. No eating, drinking, or smoking in battery storage area.

### 第 9 部分-物化特性

#### Section 9 – Physical and Chemical Properties

标称电压：7.4V

**Normal Voltage:** 7.4V

额定容量：10000mAh

**Rated Capacity:** 10000mAh.

外观特征：蓝色，棱柱形，无气味，，固体。

**Appearance characters:** blue, prismatic, odorless, solid.

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 7 页 共 11 页

Page 7 of 11

### 第 10 部分-稳定性和反应性 Section 10 – Stability and Reactivity

**稳定性:** 稳定的

**Stability:** Stable.

**应避免的条件:** 加热、机械滥用和电气滥用。

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

**危险分解产物:** 不适用

**Hazardous Decomposition Products:** Not Available.

**聚合物危害:** 不适用

**Hazardous polymerization** Not Available.

如果发生泄露，避免与强氧化剂，无机酸，强碱，卤代烃接触。

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

### 第 11 部分-毒理学信息 Section 11 – Toxicological Information

电池在正常的操作和使用中不能有发出有毒物质。如果由于不正确的使用或破坏导致电池裂开，立即丢掉。电芯内部成分有刺激性甚至诱发过敏。暴露在内部物质中，腐蚀性烟雾会对皮肤、眼睛和粘膜产生很大刺激。过度暴露可引起非纤维状肺损伤和膜刺激的症状。

The battery does not elicit toxicological properties during routine handling and use. If the battery is opened through misuse or damage, discard immediately. Internal components of cell are irritant and sensitization. Exposure to internal contents, the corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibroid lung injury and membrane irritation.

### 第 12 部分-生态信息 Section 12 – Ecological Information

如果及时使用或处置，电池不会对环境造成危害。不要让内部成分进入水生态。避免排入水路系统、废水和地下水中。

When promptly used or disposed the battery does not present environmental hazard. Do not let internal components enter marine environment. Avoid releasing to water ways, wastewater or ground water.

### 第 13 部分-废弃处理 Section 13 – Disposal Considerations

**处置方法:** 建议遵照国家和地方法规处置或再利用。

**Waste Treatment:** Recycle or dispose of in accordance with government, state & local regulations.

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 8 页 共 11 页

Page 8 of 11

**废弃注意事项:** 废电池不能被当作普通垃圾。不能扔进火中或置于高温下。不能解体, 刺穿, 破碎或类似的处理。最好的处理办法是回收利用。

**Attention for Waste Treatment:** Deserted batteries couldn't be treated as ordinary trash. Couldn't be thrown into fire or placed in high temperature. Couldn't be dissected, pierced, crushed or treated similarly. Best way is recycling.

### 第 14 部分-运输信息

#### Section 14 – Transport Information

国际民用航空组织 /国际航空运输协 会: ICAO/IATA:	<b>运输专用名称:</b> 锂离子电池/与设备一起包装/内置在设备中 <b>Proper Shipping Name:</b> Lithium ion batteries/packed with equipment/contained in equipment
	<b>UN 编号:</b> UN3480/UN3481 <b>UN Number:</b> UN3480/UN3481
	<b>危险等级:</b> 9 <b>Hazard Class:</b> 9
	<b>包装等级:</b> II <b>Packing Group:</b> II
	货物可根据民用航空组织(ICAO), TI 或国际航空运输协会(IATA), DGR 66 <sup>th</sup> (2025 版)包装说明(PI) 965 Section IB 或(PI) 966 Section II 或(PI) 967 Section II 相关规定进行空运。 Can be shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions (PI) 965 Section IB, or(PI) 966 Section II, or (PI) 967 Section II appropriate of IATA DGR 66 <sup>th</sup> (2025 Edition) for transportation.
国际海运危险货物 规则: IMDG CODE:	<b>运输专用名称:</b> 锂离子电池/与设备一起包装/内置在设备中 <b>Proper Shipping Name:</b> Lithium ion batteries/packed with equipment/contained in equipment
	<b>UN 编号:</b> UN3480/UN3481 <b>UN Number:</b> UN3480/UN3481
	<b>危险等级:</b> 9 <b>Hazard Class:</b> 9
	<b>包装等级:</b> II <b>Packing Group:</b> II
	根据特殊规定 188, 该电池不受 IMDG Code 2024 版(Amdt 42-24)限制。 The batteries are not restricted to IMDG Code 2024 Edition (Amdt 42-24) according to special provision 188.
此外, 每个锂电池和电池组类型都必须通过联合国《试验和标准手册》第 38.3 节规定的适用测试 In addition, to be permitted in transport each lithium cell and battery types must have passed the applicable tests set out in Subsection 38.3 of the UN Manual of Tests and Criteria.	

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 9 页 共 11 页

Page 9 of 11

### 第 15 部分-法规信息

#### Section 15 – Regulatory Information

《危险物品规则》  
<Dangerous Goods Regulation>  
《联合国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>  
《试验和标准手册》  
<Manual of Tests and Criteria>  
《国际海运危险货物规则》  
<Informational Maritime Dangerous Goods>  
《危险货物安全运输技术指南》  
<Technical Instructions for the Safe Transport of Dangerous Goods>  
《国际航空运输协会》  
<International Air Transport Association>  
《危险货物分类和品名编号》  
<Classification and code of dangerous goods>  
《职业安全与健康法》（ OSHA ）  
<Occupational Safety and Health Act>(OSHA)  
《有毒物质控制法》(TSCA)  
<Toxic Substances Control Act>(TSCA)  
《消费者产品安全法案》（ CPSA ）  
<Consumer Product Safety Act>(CPSA)  
《联邦环境污染控制法》（ FEPCA ）  
<Federal Environmental Pollution Control Act>(FEPCA)  
《资源保护和恢复法》（ RCRA ）  
<Resource Conservation and Recovery Act>(RCRA)  
《饮用水安全法》（ CWA ）  
<safety drinking water act>(CWA)  
《加州 65 号提案》  
<California Propositions 65>  
《联邦法规》（ CFR ）  
<Code of Federal Regulations>(CFR)  
符合所有联邦、州和地方法律  
In accordance with all Federal, State and Local laws.

### 第 16 部分-其他信息

#### Section 16 – Other Information

在我们看来上面的信息是准确的，这是我们目前能提供的最佳的信息。但是，对于这些信息，我们

# 材料安全数据表

## Material Safety Data Sheet

报告编号

Report No.:EED31Q821645E

第 10 页 共 11 页

Page 10 of 11

不对商品的性能做任何明示的或者暗示的保证，我们也不对使用这些信息造成的后果担负任何责任。用户应当自己调查研究后决定这些信息是否适用于他们的特定用途。尽管在该文档里提出了合理的预警，但是这仅仅只是给您做参考，考量和调查。这份化学品安全技术说明书提供了安全处理和使用该产品的指南，但是它没有，也不能对所有可能发生的情景提出建议，所以您需要根据您对该产品的特定使用情况来决定是否需要其他的预防措施。

The information above is believed to be accurate and represents the best information currently available to us. However, we makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. This material safety data sheet provides guidelines for the safehandling and use of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

## 材料安全数据表 Material Safety Data Sheet

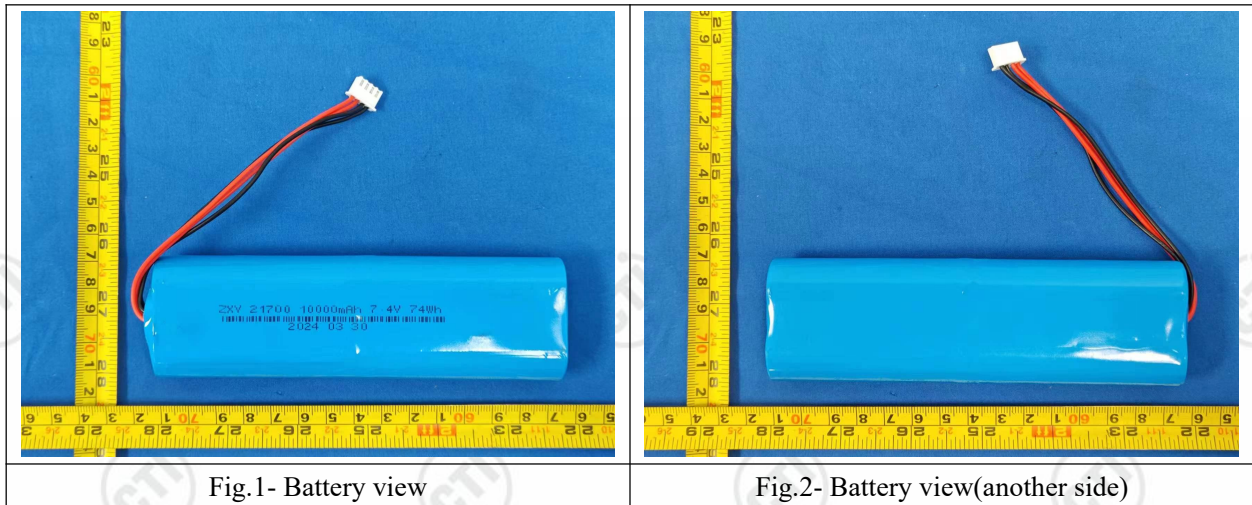
报告编号

Report No.:EED31Q821645E

第 11 页 共 11 页

Page 11 of 11

### 样品图片 Sample photo



检测报告如无批准人签字及加盖公司报告章无效，本报告检测结果仅对受测样品负责。未经 CTI 书面同意，不得部分复制本报告。

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

\*\*\* 报告结束 \*\*\*

\*\*\* End of report \*\*\*