

Report No.: NCT22050512XB1-1 Date: May. 24, 2022 Page 1 of 4

**Applicant** : Shenzhen Yuanyin Electronic Technology Co., Ltd.

**Address** : Unit 710, unit 3, No. 34, Daiwa Industrial Zone, Guancheng

community, Guanhu Street, Longhua district, Shenzhen City,

Guangdong Province

Manufacturer : Shenzhen Yuanyin Electronic Technology Co., Ltd.

: Unit 710, unit 3, No. 34, Daiwa Industrial Zone, Guancheng **Address** 

> community, Guanhu Street, Longhua district, Shenzhen City, echiloson

Guangdong Province

**Products** : Polymer Li-ion battery

Model / NO. : 702121 **Trademark** : N/A

: May. 19, 2022 Receiving Date

**Testing Period** : May. 19, 2022 to May. 24, 2022

Test Requested: Selected test(s) as requested by client.

Test Method: Please refer to next page(s). Test Results: Please refer to next page(s).

Conclusion: Based upon the performed tests by submitted samples, the test results

comply with the limits of the Directive 2006/66/EC and its amended Directive 2013/56/EU.

Signed for and on behalf of

Shenzhen NCT Testing Technology Co., Ltd.





Report No.: NCT22050512XB1-1 Date: May. 24, 2022 Page 2 of 4

#### Test Results by chemical method (Unit: mg/kg):

#### Test Method:

No.	Test Item :	Test Method (Reference)	MDL(%)	Limit(%)	Result
1	Lead (Pb)	Acid digestion method, ICP-OES	0.0002		N.D.
2	Cadmium (Cd)	Acid digestion method, ICP-OES	0.0002	0.002	N.D.
3	Mercury (Hg)	Acid digestion method, ICP-OES	0.0002	0.0005	N.D.

#### Note:

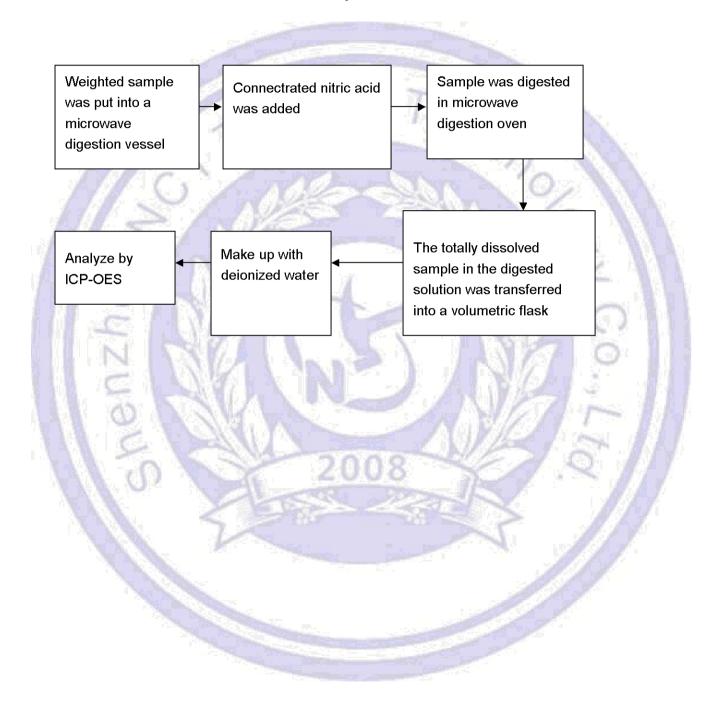
- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) N.D. = Not Detected (less than MDL)
- (3) MDL = Method Detection Limit
- (4) "--" = Not Regulated
- (5) Remark: According to the Article 21(3) of Directive 2006/66/EC, Battery, accumulator and button cell shall include the chemical symbol Mercury when containing more than 0.0005% of Hg, the chemical symbol Cadmium when containing more than 0.002% of Cd and the chemical symbol Pb when containing more than 0.004% of Pb.



Report No.: NCT22050512XB1-1 Date: May. 24, 2022 Page 3 of 4

#### Test Flow

#### 1. To Determine Lead, Cadmium and Mercury Contents:





Report No.: NCT22020512XB1-1 Date: May. 24, 2022 Page 4 of 4

# **Photos** Model: 702121 60 50 40 30 20 10 mm 60 50 40 30 20 10 mm \*\*\*End of Report\*\*\*

Search System: http://www.nct-testing.cn Search Number: NCT22020512XB1-1 Shenzhen NCT Testing Technology Co., Ltd.

1 / F, No. B Building, Mianshang Younger Pioneer Park, Hangcheng Road, Gushu Xixiang Street,

Baoan District, Shenzhen, Guangdong, China

Hotline: 400-8868-419 Fax: 86-755-27790922 http://www.nct-testing.cn





# SAFETYDATASHEET

Polymer Li-ion battery 702121 3.7V

**Product Name:** 200mAh 0.74Wh

**Effective Date:** 2022-01-21

Compiler:

Checker:

Approver:

Industry Testing Co., Ltd. Shanghai Institute of C



# Shenzhen Yuanyin Electronic Technology Co., Ltd.

# SAFETY DATA SHEET

# Polymer Li-ion battery 702121 3.7V 200mAh 0.74Wh

## SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name:

Polymer Li-ion battery 702121 3.7V 200mAh 0.74Wh

Company:

Shenzhen Yuanyin Electronic Technology Co., Ltd.

Unit 710, Unit 3, No. 34, Daiwa Industrial Zone, Guancheng Community, Guanhu Street,

Longhua District, Shenzhen City, Guangdong Province, 518110, P.R.China

Email:

271262030@qq.com

Fax:

86-755-29483965

Emergency Phone:

86-755-29483965

Recommend use of the chemical and restrictions on use:

SDS Number:

2622010483

**Effective Date:** 

2022-01-21

#### SECTION2 HAZARDS IDENTIFICATION

The product is outside of the scope of GHS system.

#### Main Hazards:

Fire or Explosion Hazards:

Lithium ion battery contains flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperatures (>150°C), when damaged or abused (e.g., mechanical damage or electrical overcharging). May burn rapidly with flare-burning effect. May ignite other batteries in close proximity.

#### Health Hazards:

Contact with the electrolyte of battery may be irritating to skin, eyes and mucous membranes. Fire will produce irritating, corrosive and/or toxic gases. Fumes may cause dizziness or suffocation.

#### SECTION3 INFORMATION ON INGREDIENTS

Product name:

Polymer Li-ion battery 702121 3.7V 200mAh 0.74Wh

Ingredient

Concentration

CAS No.

EC No.

Lithium cobalt oxide

41.45%

12190-79-3

235-362-0

Graphite	22. 85%	7782-42-5	231-955-3
Copper	7.05%	7440-50-8	231-159-6
Carbon nanotubes	4.2%	1333-86-4	215-609-9
Aluminum	3. 62%	7429-90-5	231-072-3
Other	3. 21%	/	1
Phosphate(1-)hexafluoro-lithium	2.75%	21324-40-3	244-334-7
Poly(vinylidene fluoride)	2.55%	24937-79-9	607-458-6
Methyl ethyl carbonate	2.1%	623-53-0	613-014-2
Nickel	2.06%	7440-02-0	231-111-4

#### SECTION4 FIRST-AID MEASURES

#### Skin Exposure:

If in contact with the internal materials of battery, remove the contaminated clothing, shoes and socks, immediately flush with plenty of water for at least 20 minutes. Call a physician.

#### Eye Exposure:

If in contact with the internal materials of battery, lift your eyelids immediately and rinse them with running water for more than 20 minutes. Call a physician.

#### Inhalation Exposure:

If the internal materials of battery are inhaled, immediately remove to fresh air. If breathing is difficult give oxygen. If not breathing, give artificial respiration. Call a physician.

#### Oral Exposure:

Do not induce vomiting if the internal materials of battery are swallowed. Call a physician immediately.

### Most Important Symptoms/Effects, Acute and Delayed:

No data available.

## Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

No data available.

#### SECTIONS FIRE FIGHTING MEASURES

#### Suitable Extinguishing Media:

Suitable: Water spray or regular foam.

#### Specific Hazards Arising from the Chemical:

May decompose upon combustion to generate irritating, corrosive or toxic fumes. Fumes may cause dizziness or suffocation.

#### Special Protective Action for Fire-fighters:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fire-extinguishing work is done from the windward. Uninvolved persons should evacuate to a safe place.

#### SECTION6 ACCIDENTAL RELEASE MEASURES

## Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Entry to noninvolved personnel should be controlled around the leakage area by roping off. Remove all sources of ignition.

#### Environmental Precautions:

Avoid leakage getting into the earth, ditches or waters. Avoid directly releasing the washing waste-water into the environment.

#### Methods and Materials for Containment and Cleaning up:

If the electrolyte leaks, use soil, sand or other non-combustible materials to absorb. The leaked batteries and dirty adsorbents should be placed in metal containers.

#### SECTION7 HANDLING AND STORAGE

#### Precautions for Safe Handling:

Operators should be trained and strictly abide by operating procedures. Wear appropriate protective clothing and safety gloves. Keep away from ignition sources, heat and flame. No smoking at working site. Handling is performed in a well ventilated place. Avoid disassembling the battery at will and reversing battery polarity within the battery assembly. The battery must be firmly packed in inner packaging so as to effectively prevent short circuits and short circuits caused by movement. If the electrolyte leaks, avoid directly contacting with eyes and skin. Avoid inhalation. Incompatibilities: Strong oxidizing agents, combustible materials and corrosives.

#### Conditions for Safe Storage, Including Any Incompatibilities:

Store in a cool, dry, and well-ventilated area. Keep away from ignition sources, heat and flame. Incompatibilities: Strong oxidizing agents, combustible materials and corrosives. The battery must be firmly packed in inner packaging so as to effectively prevent short circuits and short circuits caused by movement. Storage place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

#### SECTIONS EXPOSURE CONTROL/PPE

#### Control Parameters:

GBZ 2.1-2019 Occupational Exposure Limits for Hazardous Agents in the Workplace - Part 1: Chemical Hazardous Agents:

Cobalt and compounds, as Co PC-TWA 0.05mg/m³ PC-STEL 0.1mg/m³ Remarks: G2B, Sensitization

Graphite dust: PC-TWA 4 mg/m³ (Total dust); PC-TWA 2 mg/m³ (Respirable dust)

Copper (calculated as Cu): Copper dust PC-TWA 1 mg/m³; Copper smoke PC-TWA 0.2 mg/m³

Carbon nanotubes: Carbon black dust: PC-TWA 4 mg/m³ (total dust), G2B

Aluminum metal, aluminum alloy dust: PC-TWA 3 mg/m³ (Total dust)

Metallic nickel and insoluble nickel compounds: PC-TWA 1mg/m³ Remark: G2B (Metals and alloys)

Graphite: TLV-TWA 2 mg/m<sup>3</sup>

Copper: TLV-TWA 1 mg (Cu) /m³ Dust, smoke; TLV-TWA 0.2 mg (Cu) /m³ Smoke

Carbon nanotubes: TLV-TWA 3 mg/m³, inhalable dust

Aluminum: TLV-TWA 1 mg/m<sup>3</sup> Nickel: TLV-TWA 1 mg/m<sup>3</sup>

#### Appropriate Engineering Controls:

Mechanical exhaust required. Safety shower and eye bath.

#### Individual Protection Measures:

#### Eye/Face Protection:

Wear chemical safety glasses if needed.

#### Skin Protection:

Hand Protection: Wear safety gloves.

Body Protection: Wear appropriate protective clothing.

#### Respiratory Protection:

Wear government approved respirator if needed.

#### Thermal Hazards:

No data available.

#### Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

#### SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance:

Silvery aluminum foil shell

Odor:

Odorless

pH Value:

8-9

Solubility:

Partial soluble in water

Boiling Point,

No data available

Initial Boiling

Point and Boiling

Range: Melting

>300°C

Point/Freezing

Point:

Flash Point

No data available

(Closed Cup):

Density/Relative

No data available

Density:

Kinematic

No data available

Viscosity:

Lower/Upper

No data available

Explosion

Limit/Flammabili

ty Limit:

No data available Vapour Pressure:

Relative Vapor

No data available

Density:

Partition

No data available

Coefficient

N-Octanol/Water (

Log Value):

Autoingnition No data available

Temperature:

Decomposition

No data available

Temperature:

Particle

No data available

Characteristics:

Flammability

No data available

(Solid, Gas):

#### SECTION10 STABILITY AND REACTIVITY

#### Reactivity:

No data available.

#### Chemical Stability:

Stable under normal temperatures and pressures.

#### Possibility of Hazardous Reactions:

No data available.

#### Conditions to Avoid:

Avoid misoperation, exposure to heat and open flame. Avoid mechanical or electrical abuse and overcharge. Prevent short circuits and short circuits caused by movement.

#### Incompatible Materials:

Strong oxidizing agents, combustible materials and corrosives.

#### Hazardous Decomposition Products:

Carbon oxides, metal oxides, etc.

#### SECTION11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity:

No data available.

#### Skin Corrosion/Irritation:

The electrolyte in the battery causes skin irritation.

#### Serious Eye Damage/Irritation:

The electrolyte in the battery causes eye irritation.

#### Respiratory Sensitization:

No data available.

#### Carcinogenicity:

No data available.

#### Skin Sensitization:

No data available.

#### Germ Cell Mutagenicity:

No data available.

#### Reproductive Toxicity:

No data available.

#### Specific Target Organ Toxicity -Single Exposure:

No data available.

#### Specific Target Organ Toxicity -Repeated Exposure:

No data available.

#### Aspiration Hazard:

No data available.

#### SECTION12 ECOLOGICAL INFORMATION

#### Toxicity:

No data available.

#### Persistence and Degradability:

No data available.

#### Bioaccumulative Potential:

No data available.

#### Mobility in Soil:

No data available.

#### Other Adverse Effects:

No data available.

#### SECTION13 DISPOSAL CONSIDERATION

#### Disposal Methods:

The disposal of discarded battery shall comply with the requirements of relevant laws, regulations, policies and standards such as the "Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste" and "Technical Policy for the Prevention and Control of Waste Battery Pollution". Contact a licensed professional waste disposal service to dispose of wastes. Used battery being transported for disposal or reclamation should be carefully checked prior to shipment to ensure the integrity of each battery and its suitability for transport.

# SECTION14 TRANSPORT INFORMATION

Only Lithium Battery during Transport:

> The product has passed the test items of UN Model Regulations, Manual of Test and Criteria Section 38.3 and UN Model Regulations, SP188, 1.2m drop test. The total net weight of the Lithium batteries is less than 10 kg.

RID/ADR (2021 Edition):

The product is not restricted to RID/ADR according to special provision 188. According to 2.2.9.1.7 (g) of RID/ADR(2021 Edition), Manufacturers and subsequent distributors of cells or batteries manufactured shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5

IATA DGR (63rd Edition):

Proper Shipping Name: Lithium ion batteries

UN Number: UN3480 Hazard Class: 9

The product shall meet the General Requirements and section IB of Packaging Instruction

According to 3.9.2.6.1(g) of IATA DGR(63<sup>rd</sup> Edition), Manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section

38.3, paragraph 38.3.5.

IMO IMDG CODE (2020 Edition):

The product is not restricted to IMO IMDG Code according to special provision 188. According to 2.9.4.7 of IMO IMDG CODE(2020 Edition), Manufacturers and subsequent

distributors of cells or batteries manufactured shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph

38. 3. 5.

## SECTION15 REGULATORY INFORMATION

Domestic Regulations:

Only Lithium Battery during Transport:

# Regulations Concerning Road Transportation of Dangerous Goods (JT/T 617-2018):

UN Number: UN3480

Name and Description: Lithiumion batteries

The product has passed the test items of UN Model Regulations, Manual of Test and Criteria Section 38.3. The product is not restricted to JT/T 617-2018 according to special provision 188.

## List of Dangerous Goods (GB 12268-2012):

UN Number: UN3480 Shipping Name: Lithium ion batteries Packing Group: II The product has passed the test items of UN Model Regulations, Manual of Test and Criteria Section 38.3. The product is not restricted to GB 12268-2012 according to special provision 188.

#### List of Dangerous Goods by Rail (2009 Edition): Number: 91013 Name of Product: Lithium batteries

International Regulations:

#### Directive 2006/66/EC and 2013/56/EU:

The label, disposal and recycling of the battery shall meet the requirements of EU Directive 2006/66/EC and 2013/56/EU.

#### ICAO TI:

- 1. Unless be exempted according to ICAO TI, the lithium ion cell/batteries (UN 3480, PI 965) and lithium metal cell/batteries (UN 3090, PI 968) are forbidden for carriage on passenger aircraft.
- 2. Unless be approved according to ICAO TI, Lithium ion cells/batteries (UN 3480, PI 965) must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity.
- 3. A shipper is not permitted to offer for transport more than one (1) package prepared according to Section II of PI 965 and PI 968 in any single consignment. Not more than one (1) package prepared in accordance with Section II of PI 965 and PI 968 may be placed into an overpack.
- 4. Packages prepared according to Section II of PI 965 and PI 968 must be offered to the operator separately from other cargo and must not be loaded into a unit load device (ULD) before being offered to the operator.

#### SECTION16 OTHER INFORMATION

#### Preparation Date:

2022-01-21

#### Preparation Department:

Shanghai Research Institute of Chemical Industry Testing Co., Ltd. Tel(Fax): +86-21-52815377/31765555

#### Revision:

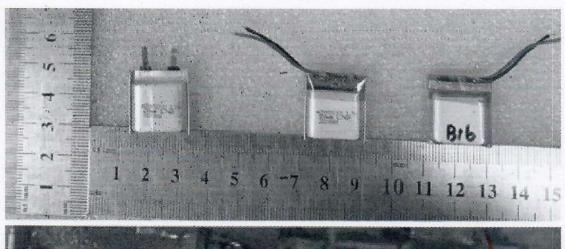
0

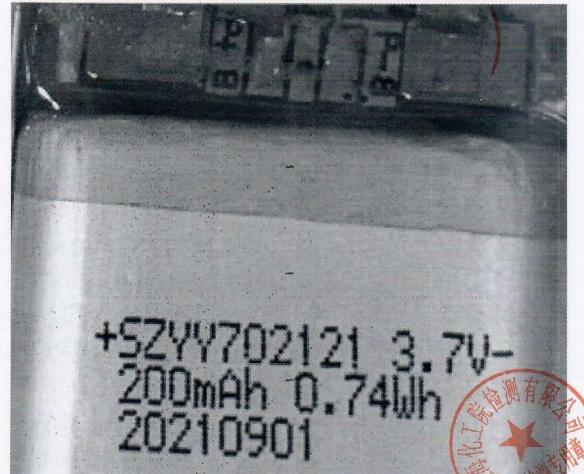
#### Abbreviations and Acronyms:

CAS: Chemical Abstracts Service EC: European Commission ACGIH: American Conference of Governmental Industrial Hygienists PC-TWA: Permissible concentration—time weighted average TLV-TWA: Time weighted average threshold limit G2B: Possibly carcinogenic to humans PC-STEL: Permissible concentration—short term exposure limit Sensitization: The substance may have allergenic effects ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulations concerning the International Carriage of Dangerous Goods by Rail IMO IMDG CODE: International Maritime Organization International Maritime Code for Dangerous Goods IATA DGR: International Air Transport Association Dangerous Goods Regulations EU: European Union ICAO TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air PI:Packaging Instruction

#### Other Information:

This SDS is compiled based on the information such as ingredients provided by the applicant and our current knowledge. This SDS shall be used only as a guide. The users of this SDS must make independent judgments on the correctness and completeness and then decide its suitability according to the actual situation. The users should take the relevant legal responsibilities for the consequences of use.











#### 性验 MSPECTION MS

# Certification for Safe Transport of Chemical Goods

# 锂电池类货物

样品名称: 聚合物锂离子电池 702121 3.7V 200mAh 0.74Wh

Sample name: Polymer Li-ion battery 702121 3.7V 200mAh 0.74Wh

深圳远银电子科技有限公司

委托单位: Shenzhen Yuanyin Electronic Technology Co., Ltd

生产单位: 深圳远银电子科技有限公司

Shenzhen Yuanyin Electronic Technology Co., Ltd

hess Better Life 检验检测专用章

SICIT上海化工院检测有限公司

Shanghai Institute of Chemical Industry Testing Co., Ltd

海 海 运 By Sea



		C	eruncation for Safe Transp	ort of Chemical Goods	Page 1/3
中文 样品名称 Chinese Sample Name		Chinese	聚合物锂离子电池 702121 3	.7V 200mAh 0.74Wh	
sample	e INami	英文 English	Polymer Li-ion battery 70	2121 3.7V 200mAh 0.74Wh	
		上单位 signor	深圳远银电子科技有限公司 Shenzhen Yuanyin Electron	ic Technology Co., Ltd	
		· 单位 facturer	深圳远银电子科技有限公司 Shenzhen Yuanyin Electron	ic Technology Co., Ltd	
		法、程序 od and procedure	国际海事组织《国际海运危险 IMO International Maritim	仓货物规则》(2020版) e Dangerous Goods Code(2020 Ed	ition)
Sar		,外观 appearance	银色,黄色双色铅塑外壳 Silvery and yellow Alumin	um-plastics shell	
Par		件信息 information	重量≤30kg。 weight≤30kg.		
序号 NO.	1	电池种类 Battery type	型号 Model	容量Capacity /锂含量Li content	放置方式 Placement
1	可充电 Recha	锂离子单电芯电池 argeable Li-ion le cell battery	702121	200mAh 0.74Wh	电池单独运输 Battery only
		锂离子电池。 .ithium ion batt	Mazards identification)		
鉴定结论	I DENTI FI CATI ON CONCL USI	理离子电池。 Lithium ion batt 2.海运按照国际 Code) 根据特殊规定188, The article is n	ery. 海事组织《国际海运危险 该物品不受IMO IMDG Code其	货物规则》办理的类项(Sugge: 他条款限制。 ions of 1MO 1MDG Code according	

批准 主星 Approver:

审核 Checker:

主检 Appraiser: 研价



货物运输条件鉴定书 Certification for Safe Transport of Chemical Goods

Page

序号 No.	检验结果及其他事项 Inspection results and other things
1	本报告所述锂电池按照《国际海运危险货物规则》(2020版) 2.9.4.5规定的质量管理体系进行制造。 Lithium cells and batteries listed in this report were manufactured under the quality management program described in IMDG CODE 2020 EDITION 2.9.4.5,
2	本报告所述锂电池已通过《联合国试验和标准手册》第III部分38.3小节相应测试要求。 包装件能够承受1.2m跌落试验。 Lithium cells and batteries listed in this report are of the types proved to meet the requirements of each applicable test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3. The package has passed the 1.2m drop test. UN38.3试验概要编号 The UN38.3 Test Summary No.(s) 812100700796709 详细信息请扫描右侧二维码。 Please scan the QR code on the right for more information.
3	锂电池完全封装在内包装内,位于坚固的外包装中。 Lithium cells and batteries are packed in inner packagings that completely enclose the cell or battery and placed in a strong outer packaging.
4	电池其有适当的防短路措施。 Cells and batteries are properly protected to prevent short circuits.
5	每个包装件必须标示恰当的锂电池标记。 装有锂电池的包装件,符合国际民航组织《危险物品安全航空运输技术细则》第4部分第11章的包装说明965或968第IB部分规 定的,黏贴5.2.1.10(锂电池标记)和5.2.2.2所示的9A型标签,应视为符合本特殊规定188的规定。 Each package shall be marked with the appropriate lithium battery mark. Packages containing lithium batteries packed in conformity with the provisions of part 4, chapter 11, packing instructions 965 or 968, section IB of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by air that bear the mark as shown in 5.2.1.10(lithium battery mark) and the label shown 5.2.2.2, Model No.9A shall be deemed to meet the provisions of this special provision 188.
6	
7	



# 货物运输条件鉴定书

Certification for Safe Transport of Chemical Goods

NO. 212200718811909

Page 3/3



\*\*\*报告结束\*\*\*



# UN38.3 试验概要 UN38.3 Test Summary



	A CONTRACTOR OF THE CONTRACTOR								
	单位信息 Compa	any information							
委托单位 Consignor	深圳远银电子科技有限公司 Shenzhen Yuanyin Electronic Technology Co., Ltd 深圳市龙华区观湖街道观城社区大和工业区 34 号 3 单元 710 710, unit 3, 34 Dahe Industrial Zone, Guancheng community, Guanhu street, Longhua District, Shenzhen 15058883260 271262030@qq.com /								
生产单位 Manufacturer	深圳远银电子科技有限公司 Shenzhen Yuanyin Electronic Technology Co., Ltd 深圳市龙华区观湖街道观城社区大和工业区 34 号 3 单元 710 710, unit 3, 34 Dahe Industrial Zone, Guancheng community, Guanhu street, Longhua District, Shenzhen 15058883260 271262030@qq.com /								
测试单位 Test lab	上海化工院检测有限公司 Shang 中国.上海.普陀区云岭东路 345 China 200062 86-21-31765555 batter								
	电池信息 Batte	ry information							
名称 Name	聚合物锂离子电池 Polymer Li-ion battery	品牌 Brand	1						
型号 Type	702121	原始测试型号 Original tested type	1						
标称电压(V) Nominal voltage	3.7	容量/能量 Capacity/energy	200mAh 0.74Wh						
描述 Description	可充电锂离子单电芯电池 Rechargeable Li-ion single cell battery	锂含量(g) Li content							
质量(kg) Mass	0.00490	外观 Appearance	银色,黄色双色铝塑外壳 silvery and yellow aluminum-plastics shell						
	测试信息 Test	information							
原报告编号 Original test report No.	1121100448	测试报告日期 Date of test report	2021-12-11						
测试标准 Test standard	联合国《试验和标准手册》第 3 NATIONS Manual of Tests and Co		ST/SG/AC,10/11/Rev.7						
T.1 高度模拟 Altitude simulation	合格 Passed	T.2 温度测试 Thermal test	合格 Passed						
T.3 振动测试 Vibration	合格 Passed	T.4 冲击测试 Shock	合格 Passed						
T.5 外部短路 External short circuit	合格 Passed	T.6 挤压 Crush	合格 Passed						
T.7 过度充电 Overcharge	合格 Passed	T.8 强制放电 Forced discharge	合格 Passed						
38.3.3 (f)	1	38.3.3 (g)	1						



# 样品图片 Sample Picture



结论 Conclusion	测试样品符合联合国《试验和标准手册》ST/SG/AC.10/11/Rev.7 38.3 标准要求。Th tested samples meet the requirements of test items of the UNITED NATIONS Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 38.3
备注 Remark	1
签名 Signature 职务 Title	モ寅 記念 正寅 副总工程师 Vice chief engineer

-验证码:341957-

\*\*\*报告结束\*\*\*







NO.1121100448

# 检测报告

# Test Report

样品名称:

聚合物锂离子电池 702121 3.7V 200mAh 0.74Wh

Name of Sample:

Polymer Li-ion battery 702121 3.7V 200mAh 0.74Wh

委托单位:

深圳远银电子科技有限公司

Consignor:

Shenzhen Yuanyin Electronic Technology Co. , Ltd.

上海化工院检测存限公司

Shanghai Institute of Chemical Industry Testing Co., Ltd.

# 上海化工院检测有限公司 检 测 报 告

Shanghai Institute of Chemical Industry Testing Co., Ltd. Test Report

NO. 1121100448

1/11

	7	The second secon			7000
样品名称	中文 Chinese	聚合	物锂离子电池 70212	1 3.7V 200mAh 0.74	4Wh
Name of Sample	英文 English	Polymer	Li-ion battery 702	2121 3.7V 200mAh 0	0.74Wh
样品编号 Sample No.			1121100448		
委托单位 Consignor		100	圳远银电子科技有限 in Electronic Techn		
生产单位 Manufacturer		-3.7	圳远银电子科技有限 in Electronic Tech		
检测方法 Test method	ST/SG/AC.	联 10/11/Rev.7 38.3 UN 1	合国《试验和标准手 Manual of Tests and Section 38.3		AC. 10/11/Rev. 7
判定标准 Criterion	ST/SG/AC. 1	联 10/11/Rev.7 38.3 UN M	合国《试验和标准手 Manual of Tests and Section 38.3		AC. 10/11/Rev. 7
样品外观 Appearance	Alexander		限色,黄色双色 铝塑 d yellow Aluminum-		
样品接受日期 Accepted Date	202	1-10-26	检测起迄日期 Test Date	2021-11-05 ~	~ 2021-12-11
检测项目 Test Items	Al	titude simulation,Th	振动;冲击;外短路;抗 nermal test,Vibrati ush,Overcharge,For	on, Shock, External	电 l short
检测结论 Conclusion	The sample	作品符合联合国《试验和 has passed the test ∕11/Rev.7 Section 38.	items of UN Manual	of Tests and Cri	3标准素成别 tervia
备注 Comment	可充电单电芯	5电池Rechargeable Sin	ngle Cell Battery./		(28)
委托单位地址 Consignor Address		7		邮政编码 Post Code	ı

批准

主星.

审核 Checker: 许勉

编制 Compiler: 興区

Approver:

职务 Title:

副总工程师(Vice chief engineer)

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# くくらいな

# 上海化工院检测有限公司 检 测 报 告

Shanghai Institute of Chemical Industry Testing Co., Ltd. Test Report

NO. 1121100448

2/11

							2/1
序号 No.	检测项目名称 Name of Test Items	Standard red	标准要求或标准条款号 Standard requirement or The Clause Number of Standard			本项结论 Conclusion	备注 Remark
1	高度模拟 Altitude simulation	册》ST/SG/AC.10/11 UN Manual of Tests	联合国《试验和标准手 册》ST/SG/AC.10/11/Rev.7 38.3 试验T1 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T1			合格 Passed	1
2	热测试 Thermal test	联合国《试验和标准 册》ST/SG/AC.10/11 UN Manual of Tests ST/SG/AC.10/11/Rev	/Rev.7 38.3 and Criteri	a	见附表 2 See Appendix 2	合格 Passed	/
3	振动 Vibration	联合国《试验和标准 册》ST/SG/AC. 10/11 UN Manual of Tests ST/SG/AC. 10/11/Rev	/Rev.7 38.3 and Criteri	а	见附表 3 See Appendix 3	合格 Passed	1
4	冲击 Shock	加》ST/SG/AC.10/11 UN Manual of Tests	联合国《试验和标准手 册》ST/SG/AC.10/11/Rev.7 38.3 试验T4 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T4			合格 Passed	1
5	外短路 External short circuit	联合国《试验和标准于 册》ST/SG/AC.10/11/Rev.7 38.3 试验T5 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T.5			见附表 5 See Appendix 5	合格 Passed	/
6	挤压 Crush	联合国《试验和标准 册》ST/SG/AC. 10/11 UN Manual of Tests ST/SG/AC. 10/11/Rev. T. 6	/Rev. 7 38.3 and Criteri	a	见附表 6 See Appendix 6	合格 Passed	1
7	过充电 Overcharge	联合国《试验和标准 册》ST/SG/AC. 10/11, UN Manual of Tests ST/SG/AC. 10/11/Rev. T. 7	/Rev. 7 38.3 and Criteria	a	见附表 7 See Appendix 7	合格 Passed	1
8	强制放电 Forced discharge	联合国《试验和标准 册》ST/SG/AC. 10/11, UN Manual of Tests ST/SG/AC. 10/11/Rev. T. 8	Rev. 7 38.3 and Criteria	3	见附表 8 See Appendix 8	合格 Passed	1
	t测环境条件 st Environment Condition				C-22℃;环境湿月 )℃-22℃;Ambier		
<b>A</b>	包检验情况	检测项目 Test Item			/		
	contracted Test Condition	分包实验室 Subcontracted	名称 Name		1	邮编 Post Code	/
		Laboratory	地址 Address		1	电话 Tel	/

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 1

NO. 1121100448

3/11

序号	1		页目名称	高度模拟				
No.		12/02/20/02/20 1-20	Test Items		simulation			
	样品状态 Sample Status	试验前 质量	Before		后 After 开路电压	质量损失 Mass Loss	剩余电压 Residual	其他 现象
Sample No.		Mass /g	OCV /V	Mass /g	OCV /V	/%	OCV /%	Other Even
001	1CYC完全充电 1CYC Fully charged	4. 8052	4. 15	4. 8045	4. 14	0. 01	99. 76	О
002	1CYC完全充电 1CYC Fully charged	4. 8420	4. 16	4. 8413	4. 16	0. 01	100.00	0
003	1CYC完全充电 1CYC Fully charged	4. 7708	4. 15	4. 7702	4. 14	0. 01	99. 76	0
004	1CYC完全充电 1CYC Fully charged	4.8654	4. 15	4. 8639	4. 15	0. 03	100.00	0
005	1CYC完全充电 1CYC Fully charged	4. 8889	4. 16	4. 8875	4. 15	0. 03	99. 76	0
006	25CYC完全充电 25CYC Fully charged	4. 8980	4. 18	4. 8985	4. 18	0.00	100.00	0
007	25CYC完全充电 25CYC Fully charged	4. 8337	4. 15	4. 8323	4. 14	0.03	99. 76	О
008	25CYC完全充电 25CYC Fully charged	4. 8571	4. 18	4. 8605	4. 18	0.00	100.00	О
009	25CYC完全充电 25CYC Fully charged	4. 8354	4. 15	4. 8345	4. 15	0.02	100.00	О
010	25CYC完全充电 25CYC Fully charged	4. 8721	4. 15	4. 8713	4. 15	0.02	100.00	O.
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

Shanghai Institute of Chemical Industry Testing Co., Ltd. Test Report — Appendix 2

NO. 1121100448 4/11

序号 No.	2		页目名称 Test Items	热测试 Thermal	test			
14 0	样品状态	试验前 Before		试验	后 After	质量损失	剩余电压	其他
样品 编号 Sample No.	Sample Status	质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V	Mass Loss	Residual OCV	现象 Other Event
001	1CYC完全充电 1CYC Fully charged	4. 8045	4. 14	4. 8026	4. 08	0.04	98. 55	О
002	1CYC完全充电 1CYC Fully charged	4. 8413	4. 16	4. 8386	4. 09	0. 06	98. 32	О
003	1CYC完全充电 1CYC Fully charged	4. 7702	4. 14	4. 7690	4. 08	0.03	98. 55	0
004	1CYC完全充电 1CYC Fully charged	4. 8639	4. 15	4. 8627	4. 08	0. 02	98. 31	0
005	1CYC完全充电 1CYC Fully charged	4. 8875	4. 15	4. 8855	4. 08	0.04	98. 31	0
006	25CYC完全充电 25CYC Fully charged	4. 8985	4. 18	4. 8957	4. 08	0.06	97. 61	О
007	25CYC完全充电 25CYC Fully charged	4. 8323	4. 14	4. 8305	4. 08	0.04	98. 55	О
008	25CYC完全充电 25CYC Fully charged	4. 8605	4. 18	4. 8584	4. 08	0.04	97. 61	0
009	25CYC完全充电 25CYC Fully charged	4. 8345	4. 15	4. 8319	4. 08	0.05	98. 31	0
010	25CYC完全充电 25CYC Fully charged	4. 8713	4. 15	4. 8691	4. 08	0.05	98. 31	0
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				-				

备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 3

NO. 1121100448

5/11

序号 No.	3	7.	页目名称 Test Items	振动 Vibratio	n			
样品	样品状态	试验前 Before		试验。	后 After	质量损失	剩余电压	其他
编号 Sample No.	Sample Status	质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V	Mass Loss	Residual OCV /%	现象 Other Event
001	1CYC完全充电 1CYC Fully charged	4. 8026	4. 08	4, 8028	4. 07	0.00	99. 75	О
002	1CYC完全充电 1CYC Fully charged	4. 8386	4. 09	4. 8389	4. 07	0.00	99. 51	0
003	1CYC完全充电 1CYC Fully charged	4. 7690	4. 08	4. 7680	4. 07	0. 02	99. 75	o
004	ICYC完全充电 ICYC Fully charged	4. 8627	4. 08	4. 8624	4. 07	0. 01	99. 75	0
005	1CYC完全充电 1CYC Fully charged	4. 8855	4. 08	4. 8852	4. 07	0. 01	99. 75	0
006	25CYC完全充电 25CYC Fully charged	4. 8957	4. 08	4. 8960	4. 07	0.00	99. 75	О
007	25CYC完全充电 25CYC Fully charged	4, 8305	4. 08	4. 8300	4. 07	0.01	99. 75	O
008	25CYC完全充电 25CYC Fully charged	4. 8584	4. 08	4. 8588	4. 07	0.00	99. 75	О
009	25CYC完全充电 25CYC Fully charged	4. 8319	4. 08	4. 8313	4. 07	0.01	99. 75	О
010	25CYC完全充电 25CYC Fully charged	4. 8691	4. 08	4.8690	4. 07	0.00	99. 75	0
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8				*				

备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 0-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report—Appendix 4

NO. 1121100448

6/11

序号 No.	4		页目名称 Test Items	冲击 Shock			2	
样品	样品状态		Before	V. (2)2	后 After	质量损失	(   100	其他
编号 Sample Status Sample No.	质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V	Mass Loss	Residual OCV /%	现象 Other Even	
001	1CYC完全充电 1CYC Fully charged	4. 8028	4. 07	4. 8034	4. 07	0.00	100.00	О
002	1CYC完全充电 1CYC Fully charged	4. 8389	4. 07	4. 8395	4. 07	0.00	100.00	О
003	1CYC完全充电 1CYC Fully charged	4. 7680	4. 07	4. 7689	4. 07	0.00	100.00	О
004	1CYC完全充电 1CYC Fully charged	4.8624	4. 07	4. 8633	4. 07	0.00	100.00	О
005	1CYC完全充电 1CYC Fully charged	4. 8852	4. 07	4. 8844	4. 07	0. 02	100.00	О
006	25CYC完全充电 25CYC Fully charged	4. 8960	4. 07	4. 8971	4. 07	0.00	100.00	О
007	25CYC完全充电 25CYC Fully charged	4. 8300	4. 07	4, 8311	4. 07	0.00	100.00	o
800	25CYC完全充电 25CYC Fully charged	4. 8588	4. 07	4, 8599	4. 07	0.00	100.00	О
009	25CYC完全充电 25CYC Fully charged	4. 8313	4. 07	4. 8327	4. 07	0.00	100.00	0
010	25CYC完全充电 25CYC Fully charged	4. 8690	4. 07	4. 8691	4. 07	0.00	100.00	0
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report—Appendix 5

NO. 1121100448

7/11

序号 No.	5	检测项目名称 Name of Test Items	外短路 External short circuit
样品编号 Sample No.	样品状态 Sample Status	样品表面最高温度 Max. External Temperature /℃	其他现象 Other Event
001	1CYC完全充电 1CYC Fully charged	56. 9	0
002	1CYC完全充电 1CYC Fully charged	57. 1	O
003	1CYC完全充电 1CYC Fully charged	56. 2	0
004	1CYC完全充电 1CYC Fully charged	56. 4	O
005	1CYC完全充电 1CYC Fully charged	56. 1	0
006	25CYC完全充电 25CYC Fully charged	56. 3	О
007	25CYC完全充电 25CYC Fully charged	55. 1	O
800	25CYC完全充电 25CYC Fully charged	55. 0	0
009	25CYC完全充电 25CYC Fully charged	56. 0	0
010	25CYC完全充电 25CYC Pully charged	57. 2	O
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备注: D-解体 R-破裂 F-起火 O-无解体、无起火、无破裂。

Note: D-Disassembly R-Ruptur F-Fire O-No Disassembly, No Fire & No Rupture.

# 上海化工院检测有限公司 检测报告-附表6 Shanghai Institute of Chemical Industry

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 6

NO. 1121100448

8/11

序号 No.	6	检测项目名称 Name of Test Items	挤压 Crush
样品编号 Sample No.	样品状态 Sample Status	样品表面最高温度 Max. External Temperature /℃	其他现象 Other Event
011	1CYC 50%容量 1CYC 50% Capacity	20. 5	0
012	1CYC 50%容量 1CYC 50% Capacity	20. 5	0
013	1CYC 50%容量 1CYC 50% Capacity	20. 6	0
014	1CYC 50%容量 1CYC 50% Capacity	20. 6	0
015	1CYC 50%容量 1CYC 50% Capacity	20. 5	0
016	25CYC 50%容量 25CYC 50% Capacity	20. 5	0
017	25CYC 50%容量 25CYC 50% Capacity	20. 6	0
018	25CYC 50%容量 25CYC 50% Capacity	20. 6	0
019	25CYC 50%容量 25CYC 50% Capacity	20. 6	0
020	25CYC 50%容量 25CYC 50% Capacity	20. 6	0
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备注: D-解体 F-起火 O-无解体、无起火。

Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 7

NO. 1121100448

9/11

序号 No.	7	检测项目名称 Name of Test Items	过充电 Overcharge
	持口作大	7,441.5	其他现象
样品编号 Sample No.	样品状态 Sample Status	女性光水 Other Event	
021	1CYC完全充电 1CYC Fully charged	O	
022	1CYC完全充电 1CYC Fully charged	0	
023	1CYC完全充电 1CYC Fully charged	О	
024	1CYC完全充电 1CYC Fully charged	0	
025	25CYC完全充电 25CYC Fully charged	0	
026	25CYC完全充电 25CYC Fully charged		0
027	25CYC完全充电 25CYC Fully charged		0
028	25CYC完全充电 25CYC Fully charged		О
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	ь		
-			

备注: D-解体 F-起火 O-无解体、无起火。

Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report—Appendix 8

NO. 1121100448

10/11

序号 No.	8	检测项目名称 Name of Test Items	强制放电 Forced discharge
样品编号 Sample No.	样品状态 Sample Status	其他现象 Other Event	
029	1CYC完全放电 1CYC Fully discharged	0	
030	1CYC完全放电 1CYC Fully discharged	0	
031	1CYC完全放电 1CYC Fully discharged	0	
032	1CYC完全放电 1CYC Fully discharged	0	
033	1CYC完全放电 1CYC Fully discharged		0
034	1CYC完全放电 1CYC Fully discharged	0	
035	1CYC完全放电 1CYC Fully discharged	0	
036	1CYC完全放电 1CYC Fully discharged		О
037	1CYC完全放电 1CYC Fully discharged	O	
038	1CYC完全放电 1CYC Fully discharged	O	
039	25CYC完全放电 25CYC Fully discharged	O	
040	25CYC完全放电 25CYC Fully discharged	O	
041	25CYC完全放电 25CYC Fully discharged	O	
042	25CYC完全放电 25CYC Fully discharged	0	
043	25CYC完全放电 25CYC Fully discharged	0	
044	25CYC完全放电 25CYC Fully discharged	O	
045	25CYC完全放电 25CYC Fully discharged	0	
046	25CYC完全放电 25CYC Fully discharged	0	
047	25CYC完全放电 25CYC Fully discharged	0	
048	25CYC完全放电 25CYC Fully discharged	0	

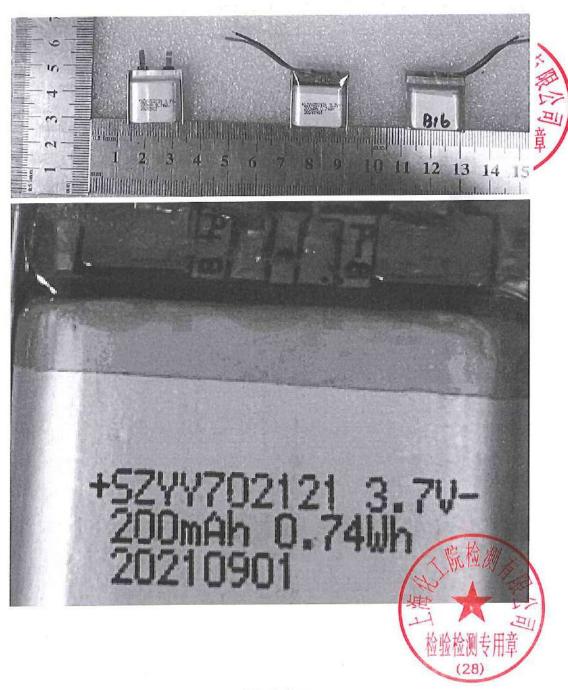
备注: D-解体 F-起火 O-无解体、无起火。

Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

# 上海化工院检测有限公司检测报告 - 附图

Shanghai Institute of Chemical Industry Testing Co., Ltd. Test Report — Appendix

NO. 1121100448 11/11



\*\*\*报告结束\*\*\*