Witness Better Life
SICIT

No. 2425070012

For Articles

Safety Data Sheet

（SDS）

Product Name: Rechargeable lithium battery pack YC-24VY 24V12Ah 288Wh

Effective Date: 2025-07-18

Compiler: Chen Yushuang

Checker: Liu Wanqing

Approver: LinJian

上海化工院检测有限公司 检验检测专用章 (12)

Shanghai Institute of Chemical Industry Testing Co., Ltd.

Jiangsu Yuyue Medical Equipment & Supply Co., Ltd.

Safety Data Sheet SDS for Articles

Rechargeable lithium battery pack YC-24VY 24V12Ah 288Wh

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product name:	Rechargeable lithium battery pack YC-24VY 24V12Ah 288Wh
Company:	Jiangsu Yuyue Medical Equipment & Supply Co., Ltd.
Address:	Houxiang Gaoqiao, Danbei Town, Danyang City, Jiangsu Province, 212300, P.R.China
E-mail:	jsyckj789@163.com
Fax:	86-511-86391798
Emergency Phone:	86-511-86391768
SDS No. :	2425070012
Effective Date:	2025-07-18

SECTION 2 HAZARDS IDENTIFICATION

The product is outside of the scope of GHS system. The GHS system does not apply to classify the physical, health and environmental hazards of such articles. Branded consumer batteries are defined as electro-technical devices. The design, safety and manufacture of branded consumer batteries follow ANSI and IEC battery standards. This product contains lithium ion battery. This document only identifies hazards of battery and does not consider other hazards caused by batteries installed in the product.

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.

SECTION 3 INFORMATION ON INGREDIENT

Ingredient	Concentration	CAS NO.	EC NO.
$Li(NiCoMn)O_2$	25-35%	182442-95-1	695-690-9
Aluminium(AL)	21-23%	7429-90-5	231-072-3

Ingredient	Concentration	CAS NO.	EC NO.
Graphite(C)	15-20%	7782-42-5	231-955-3
Electrolyte	10-15%	623-53-0	613-014-2
Copper(Cu)	10-11%	7440-50-8	231-159-6
Poly Vinylidene Fluoride(PVDF)	1-5%	24937-79-9	607-458-6
Lithium hexafluorophosphate	1-3%	21324-40-3	244-334-7
Acetylene Black	0.5-3%	1333-86-4	215-609-9

SECTION 4 FIRST-AID MEASURES

Skin Exposure: If in contact with the internal materials of battery, remove the contaminated clothing and footwear, 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.

SECTION 5 FIRE FIGHTING MEASURE

Suitable Extinguishing Media: 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.

SECTION 6 ACCIDENTAL RELEASE MEASURE

Personal Precautions, Protective Equipment and Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

Emergency Procedures:	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.

SECTION 7 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 an explosion-proof ventilation system and equipment. Do not let the lithium metal contact with water. 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. In case of leakage of the materials in the battery, 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. Avoid exposure to moisture. 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 firefighting equipment and leakage emergency treatment equipment.

SECTION 8 EXPOSURE CONTROL/PPE

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.

SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Black plastics cement shell
Odor:	Odorless
Other physical and chemical parameters:	Not applicable.

SECTION 10 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. Prevent movement which could lead to short circuits.
Incompatible Materials:	Strong oxidizing agents, combustible materials and corrosives.
Hazardous Decomposition Products:	Carbon oxides, metal oxides, etc.

SECTION 11 TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation:	The electrolyte in the battery causes skin irritation.
Serious Eye Damage / Irritation:	The electrolyte in the battery causes eye irritation.

SECTION 12 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.

SECTION 13 DISPOSAL CONSIDERATION

Disposal Methods:	Disposal or recycle in accordance with government, state & local regulations. 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.

SECTION 14 TRANSPORT INFORMATION

Lithium Battery Contained in Electric Wheelchair D130EL/D130FL during Transport:

The product has passed the test items of Manual of Tests and Criteria Section 38.3.

RID/ADR（2025 Edition）:

Proper Shipping Name: VEHICLE, LITHIUM ION BATTERY POWERED
UN Number: UN3556
Hazard Class: 9
According to 2.2.9.1.7（g）, 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(66th Edition):

Proper Shipping Name: Lithium ion battery-powered vehicle
UN Number: UN3556
Hazard Class: 9
According to 3.9.2.6.1(g), 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 (2024 Edition):

Proper Shipping Name: VEHICLE, LITHIUM ION BATTERY POWERED
UN Number: UN3556
Hazard Class: 9
EmS Number: F-A, S-I
According to 2.9.4.7, 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.

SECTION 15 REGULATORY INFORMATION

Domestic Regulations

Lithium Battery Contained in Vehicle during Transport

Regulations Concerning Road Transportation of Dangerous Goods (JT/T 617-2018):	UN Number: 3171 Name and Description: Battery powered vehicle The product is not subject to JT/T 617-2018 according to special provision 240.
List of Dangerous Goods (GB 12268-2012):	UN Number: 3171 Shipping Name: Battery powered vehicle The product is not subject to GB 12268-2012 according to special provision 106.
List of Dangerous Goods by Rail (TB/T 30006-2022):	Not listed.

International Regulations

Directive (EU)2023/1542 and 2013/56/EU:	The label, disposal and recycling of the battery shall meet the requirements of EU Directive (EU)2023/1542 and 2013/56/EU.
Restriction of Hazardous Substances (RoHS):	Electrical and electronic equipment products should meet the requirements of RoHS.

SECTION 16 OTHER INFORMATION

Preparation Date:	2025-07-18
Preparation Department:	Shanghai Institute of Chemical Industry Testing Co., Ltd. Tel(Fax):+86-21-52815377/31765555
Other Information:	This report is only for articles containing hazardous substances (such as lithium batteries). This report is compiled based on the information such as ingredients provided by the applicant and our current knowledge. This report shall be used only as a guide. The users of this report 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.

Appendix :







上海化工院检测有限公司 检验检测专用章 (12)

END OF REPORT

中国认可
检验
INSPECTION
CNAS IB0071

NO.2625070086

SAFETYDATASHEET

Product Name: Rechargeable lithium battery pack YC-24VY 24V12Ah 288Wh

Effective Date: 2025-07-16

Compiler: ZouQiuyun

Checker: Liu Wanqing

Approver: Dongxuesheng

Shanghai Institute of Chemical Industry Testing Co., Ltd.

Jiangsu Yuyue Medical Equipment & Supply Co., Ltd.

SAFETY DATA SHEET

Rechargeable lithium battery pack YC-24VY 24V12Ah 288Wh

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name:	Rechargeable lithium battery pack YC-24VY 24V12Ah 288Wh
Company:	Jiangsu Yuyue Medical Equipment & Supply Co., Ltd.
Address:	Houxiang Gaoqiao, Danbei Town, Danyang City, Jiangsu Province, 212300, P. R. China
Email:	jsyckj789@163.com
Fax:	86-511-86391798
Emergency Phone:	86-511-86391768

Recommend use of the chemical and restrictions on use:

SDS Number:	2625070086
Effective Date:	2025-07-16

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℃), 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: Rechargeable lithium battery pack YC-24VY 24V12Ah 288Wh

Ingredient	Concentration	CAS No.	EC No.
$Li(NiCoMn)O_2$	25-35%	182442-95-1	695-690-9

Aluminium(AL)	21-23%	7429-90-5	231-072-3
Graphite(C)	15-20%	7782-42-5	231-955-3
Electrolyte	10-15%	623-53-0	613-014-2
Copper(Cu)	10-11%	7440-50-8	231-159-6
Poly Vinylidene Fluoride(PVDF)	1-5%	24937-79-9	607-458-6
Lithium hexafluorophosphate	1-3%	21324-40-3	244-334-7
Acetylene Black	0.5-3%	1333-86-4	215-609-9

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.

SECTION5 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.

SECTION8 EXPOSURE CONTROL/PPE

Control Parameters:

GBZ 2.1-2019 Occupational Exposure Limits for Hazardous Agents in the Workplace - Part 1: Chemical Hazardous Agents:
Soluble nickel compounds PC-TWA 0.5mg/m^3 Remarks: G1 (Nickel compounds), Sensitization
Cobalt and compounds, as Co: PC-TWA 0.05 mg/m^3; PC-STEL 0.1 mg/m^3 Remarks: G2B, Sensitization
Manganese and its inorganic compounds (calculated as MnO_2) : PC-TWA 0.15 mg/m^3
Graphite dust: PC-TWA 4 mg/m^3 (Total dust) ; PC-TWA 2 mg/m^3 (Respirable dust)
Copper (calculated as Cu) : Copper dust PC-TWA 1 mg/m^3; Copper smoke PC-TWA 0.2 mg/m^3
Aluminum metal, aluminum alloy dust: PC-TWA 3 mg/m^3 (Total dust)
Acetylene Black: Carbon black dust: PC-TWA 4 mg/m^3 (total dust); Remarks: G2B
ACGIH:
Graphite: TLV-TWA 2 mg/m^3
Copper: TLV-TWA 1 mg (Cu) /m^3 Dust, smoke; TLV-TWA 0.2 mg (Cu) /m^3 Smoke
Aluminum: TLV-TWA 1 mg/m^3
Acetylene Black: TLV-TWA: 3 mg/m^3 (Inhalable particulate matter)

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:	Black plastics cement shell
Odor:	Odorless
pH Value:	8-9
Solubility:	Partial soluble in water
Boiling Point, Initial Boiling Point and Boiling Range:	No data available
Melting Point/Freezing Point:	>300℃
Flash Point (Closed Cup):	No data available
Density/Relative Density:	No data available
Kinematic Viscosity:	No data available
Lower/Upper Explosion Limit/Flammability Limit:	No data available
Vapour Pressure:	No data available
Relative Vapor Density:	No data available
Partition Coefficient N-Octanol/Water(Log Value):	No data available
Autoingnition Temperature:	No data available
Decomposition Temperature:	No data available
Particle Characteristics:	No data available
Flammability (Solid, Gas):	No data available

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 Manual of Tests and Criteria Section 38.3. The total net weight of the Lithium batteries is less than 35 kg.

RID/ADR (2023 Edition) :

Hazard Class: 9
UN Number: UN3480
Proper Shipping Name: Lithium ion batteries
According to 2.2.9.1.7(g), 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 (66th Edition) :

Hazard Class: 9
UN Number: UN3480
Proper Shipping Name: Lithium ion batteries
The product shall meet the General Requirements and section IA of Packaging Instruction 965.
According to 3.9.2.6.1(g) , 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(2022 Edition):

Hazard Class: 9
UN Number: UN3480
Proper Shipping Name: Lithium ion batteries
EmS Number: F-A, S-I
According to 2.9.4.7, 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:

The product has passed the test items of Manual of Tests and Criteria Section 38.3.

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

UN Number: 3480
Name and Description: Lithiumion batteries

List of Dangerous Goods (GB 12268-2012) :

UN Number: UN3480 Shipping Name: Lithium ion batteries Packing Group: II

List of Dangerous Goods by Rail (TB/T 30006-2022):

Number: 91045
Name of Product: Lithium ion batteries

International Regulations:

Directive (EU)2023/1542 and 2013/56/EU:

The label, disposal and recycling of the battery shall meet the requirements of EU Directive (EU)2023/1542 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.

SECTION16 OTHER INFORMATION

Preparation Date:

2025-07-16

Preparation Department:

Shanghai 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 PC-STEL: Permissible concentration-short term exposure limit TLV-TWA: Time weighted average threshold limit G1: Carcinogenic to humans G2B: Possibly carcinogenic to humans 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 EmS: Emergency schedule 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 only compiled for battery and based on the information such as ingredients provided by the applicant and our current knowledge. This SDS shall be used only as a guide. If the battery is used as a component in another product, the information in this SDS may not be applicable. 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.



END OF REPORT

中国认可
检测
TESTING
CNAS L0748

170014233963

NO.1121050349

检 测 报 告

Test Report

样品名称： 可充电锂电池组 YC-24VY 24V 12Ah 288Wh

Name of Sample: /

委托单位: 江苏鱼跃医疗设备股份有限公司

Consignor: /

上海化工院检测有限公司

Shanghai Institute of Chemical Industry Testing Co., Ltd.

扫描全能王 创建

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. 1121050349

样品名称 Name of Sample	中文 Chinese	可充电锂电池组 YC-24VY 24V 12Ah 288Wh	
	英文 English	/	
样品编号 Sample No.	1121050349		
委托单位 Consignor	江苏鱼跃医疗设备股份有限公司 /		
生产单位 Manufacturer	江苏永昌新能源科技有限公司 /		
检测方法 Test method	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3		
判定标准 Criterion	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3		
样品外观 Appearance	黑色 塑胶外壳 Black Plastics cement shell		
样品接受日期 Accepted Date	2021-05-18	检测起迄日期 Test Date	2021-05-24 ～ 2021-06-16
检测项目 Test Items	高度模拟;热测试;振动;冲击;外短路;撞击;过充电;强制放电 Altitude simulation, Thermal test, Vibration, Shock, External short circuit, Impact, Overcharge, Forced discharge		
检测结论 Conclusion	经检测，该样品符合联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3标准要求。 The sample has passed the test items of UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 38.3 生效日期(Date)：2021-06-18		
备注 Comment	可充电锂电池组Rechargeable Lithium Battery./		
委托单位地址 Consignor Address	/	邮政编码 Post Code	212316

批准 Approver: 王宗

审核 Checker: 陆建峰

编制 Compiler: 傅俊

职务 Title: 副总工程师(Vice chief engineer)

上海化工院检测有限公司 检验检测专用章 (16)

扫描全能王 创建

序号 No.	检测项目名称 Name of Test Items	标准要求或标准条款号 Standard requirement or The Clause Number of Standard	检测结果 Test Result	本项结论 Conclusion	备注 Remark
1	高度模拟 Altitude simulation	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.1 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.1	见附表 1 See Appendix 1	合格 Passed	/
2	热测试 Thermal test	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.2 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.2	见附表 2 See Appendix 2	合格 Passed	/
3	振动 Vibration	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.3 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.3	见附表 3 See Appendix 3	合格 Passed	/
4	冲击 Shock	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.4 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.4	见附表 4 See Appendix 4	合格 Passed	/
5	外短路 External short circuit	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.5 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.5	见附表 5 See Appendix 5	合格 Passed	/
6	撞击 Impact	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.6 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.6	见附表 6 See Appendix 6	合格 Passed	/
7	过充电 Overcharge	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.7 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.7	见附表 7 See Appendix 7	合格 Passed	/
8	强制放电 Forced discharge	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1 38.3 试验T.8 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1 Section 38.3 Test T.8	见附表 8 See Appendix 8	合格 Passed	/

检测环境条件 Test Environment Condition	环境温度:21℃-23℃;环境湿度:/% Ambient temperature:21℃-23℃;Ambient humidity:/%				
分包检验情况 Subcontracted Test Condition	检测项目 Test Item	/			
	分包实验室 Subcontracted Laboratory	名称 Name	/	邮编 Post Code	/
		地址 Address	/	电话 Tel	/

扫描全能王 创建

上海化工院检测有限公司
检 测 报 告－附表1

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

序号 No.	1	检测项目名称 Name of Test Items		高度模拟 Altitude simulation				
样品编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	2183.88	29.11	2183.70	29.10	0.01	99.97	O
002	1CYC完全充电 1CYC Fully charged	2197.98	29.12	2197.78	29.11	0.01	99.97	O
003	1CYC完全充电 1CYC Fully charged	2182.81	29.12	2182.62	29.11	0.01	99.97	O
004	1CYC完全充电 1CYC Fully charged	2190.41	29.08	2190.23	29.07	0.01	99.97	O
005	25CYC完全充电 25CYC Fully charged	2176.77	29.14	2176.55	29.13	0.01	99.97	O
006	25CYC完全充电 25CYC Fully charged	2194.14	29.06	2193.91	29.06	0.01	100.00	O
007	25CYC完全充电 25CYC Fully charged	2184.62	29.09	2184.49	29.07	0.01	99.93	O
008	25CYC完全充电 25CYC Fully charged	2189.58	29.20	2189.39	29.19	0.01	99.97	O
以下空白	This space intentionally left blank							

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.

扫描全能王 创建

上海化工院检测有限公司
检 测 报 告－附表2

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

序号 No.	2	检测项目名称 Name of Test Items		热测试 Thermal test				
样品编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	2183.70	29.10	2183.08	28.95	0.03	99.48	O
002	1CYC完全充电 1CYC Fully charged	2197.78	29.11	2197.24	28.96	0.02	99.48	O
003	1CYC完全充电 1CYC Fully charged	2182.62	29.11	2182.07	28.96	0.03	99.48	O
004	1CYC完全充电 1CYC Fully charged	2190.23	29.07	2189.53	28.92	0.03	99.48	O
005	25CYC完全充电 25CYC Fully charged	2176.55	29.13	2175.87	28.96	0.03	99.42	O
006	25CYC完全充电 25CYC Fully charged	2193.91	29.06	2193.10	28.89	0.04	99.42	O
007	25CYC完全充电 25CYC Fully charged	2184.49	29.07	2183.74	28.91	0.03	99.45	O
008	25CYC完全充电 25CYC Fully charged	2189.39	29.19	2188.64	29.01	0.03	99.38	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.

扫描全能王 创建

上海化工院检测有限公司
检 测 报 告－附表3

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

NO. 1121050349

序号 No.	3	检测项目名称 Name of Test Items		振动 Vibration				
样品编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	2183.08	28.95	2183.30	28.94	0.00	99.97	O
002	1CYC完全充电 1CYC Fully charged	2197.24	28.96	2197.38	28.96	0.00	100.00	O
003	1CYC完全充电 1CYC Fully charged	2182.07	28.96	2182.23	28.95	0.00	99.97	O
004	1CYC完全充电 1CYC Fully charged	2189.53	28.92	2189.75	28.90	0.00	99.93	O
005	25CYC完全充电 25CYC Fully charged	2175.87	28.96	2176.11	28.95	0.00	99.97	O
006	25CYC完全充电 25CYC Fully charged	2193.10	28.89	2193.33	28.87	0.00	99.93	O
007	25CYC完全充电 25CYC Fully charged	2183.74	28.91	2183.97	28.90	0.00	99.97	O
008	25CYC完全充电 25CYC Fully charged	2188.64	29.01	2188.85	28.99	0.00	99.93	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.

扫描全能王 创建

上海化工院检测有限公司
检 测 报 告－附表4
Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report—Appendix 4

序号 No.	4	检测项目名称 Name of Test Items		冲击 Shock				
样品编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	2183.30	28.94	2183.50	28.94	0.00	100.00	O
002	1CYC完全充电 1CYC Fully charged	2197.38	28.96	2197.61	28.96	0.00	100.00	O
003	1CYC完全充电 1CYC Fully charged	2182.23	28.95	2182.49	28.95	0.00	100.00	O
004	1CYC完全充电 1CYC Fully charged	2189.75	28.90	2190.00	28.91	0.00	100.00	O
005	25CYC完全充电 25CYC Fully charged	2176.11	28.95	2176.38	28.95	0.00	100.00	O
006	25CYC完全充电 25CYC Fully charged	2193.33	28.87	2193.61	28.87	0.00	100.00	O
007	25CYC完全充电 25CYC Fully charged	2183.97	28.90	2184.25	28.90	0.00	100.00	O
008	25CYC完全充电 25CYC Fully charged	2188.85	28.99	2189.15	29.00	0.00	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.

扫描全能王 创建

上海化工院检测有限公司
检 测 报 告－附表5
Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report—Appendix 5

NO. 1121050349

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	58.6	O
002	1CYC完全充电 1CYC Fully charged	57.7	O
003	1CYC完全充电 1CYC Fully charged	57.1	O
004	1CYC完全充电 1CYC Fully charged	57.5	O
005	25CYC完全充电 25CYC Fully charged	57.6	O
006	25CYC完全充电 25CYC Fully charged	58.0	O
007	25CYC完全充电 25CYC Fully charged	55.8	O
008	25CYC完全充电 25CYC Fully charged	57.3	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.

扫描全能王 创建

上海化工院检测有限公司
检 测 报 告－附表6
Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report—Appendix 6

NO. 1121050349

序号 No.	6	检测项目名称 Name of Test Items	撞击 Impact
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
009	1CYC 50%容量 1CYC 50% Capacity	61.0	O
010	1CYC 50%容量 1CYC 50% Capacity	79.9	O
011	1CYC 50%容量 1CYC 50% Capacity	96.7	O
012	1CYC 50%容量 1CYC 50% Capacity	95.6	O
013	1CYC 50%容量 1CYC 50% Capacity	100.4	O
014	25CYC 50%容量 25CYC 50% Capacity	87.2	O
015	25CYC 50%容量 25CYC 50% Capacity	96.2	O
016	25CYC 50%容量 25CYC 50% Capacity	98.5	O
017	25CYC 50%容量 25CYC 50% Capacity	82.0	O
018	25CYC 50%容量 25CYC 50% Capacity	100.7	O
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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.

扫描全能王 创建

上海化工院检测有限公司
检 测 报 告－附表7
Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report—Appendix 7

序号 No.	7	检测项目名称 Name of Test Items	过充电 Overcharge
样品编号 Sample No.	样品状态 Sample Status	其他现象 Other Event	
019	1CYC完全充电 1CYC Fully charged	O	
020	1CYC完全充电 1CYC Fully charged	O	
021	1CYC完全充电 1CYC Fully charged	O	
022	1CYC完全充电 1CYC Fully charged	O	
023	25CYC完全充电 25CYC Fully charged	O	
024	25CYC完全充电 25CYC Fully charged	O	
025	25CYC完全充电 25CYC Fully charged	O	
026	25CYC完全充电 25CYC Fully charged	O	
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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.

扫描全能王 创建

上海化工院检测有限公司
检 测 报 告－附表8
Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report—Appendix 8

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	
027	1CYC完全放电 1CYC Fully discharged	O	
028	1CYC完全放电 1CYC Fully discharged	O	
029	1CYC完全放电 1CYC Fully discharged	O	
030	1CYC完全放电 1CYC Fully discharged	O	
031	1CYC完全放电 1CYC Fully discharged	O	
032	1CYC完全放电 1CYC Fully discharged	O	
033	1CYC完全放电 1CYC Fully discharged	O	
034	1CYC完全放电 1CYC Fully discharged	O	
035	1CYC完全放电 1CYC Fully discharged	O	
036	1CYC完全放电 1CYC Fully discharged	O	
037	25CYC完全放电 25CYC Fully discharged	O	
038	25CYC完全放电 25CYC 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	O	
043	25CYC完全放电 25CYC Fully discharged	O	
044	25CYC完全放电 25CYC Fully discharged	O	
045	25CYC完全放电 25CYC Fully discharged	O	
046	25CYC完全放电 25CYC Fully discharged	O	

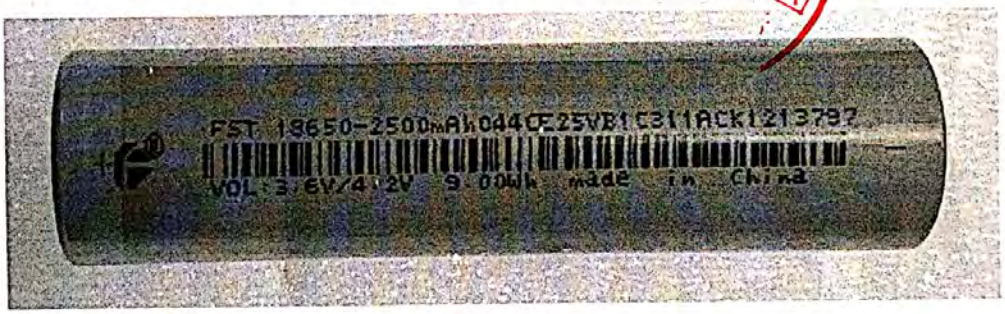
备注：D-解体 F-起火 O-无解体、无起火。
Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

扫描全能王 创建



可充电锂电池组 YC-24VY

24V12Ah 288Wh



报告结束

扫描全能王 创建

UN38.3 试验概要
UN38.3 Test Summary

812100800044532

单位信息 Company information			
委托单位 Consignor	江苏鱼跃医疗设备股份有限公司 Jiangsu Yuyue Medical Equipment & Supply Co., Ltd. 江苏省丹阳市云阳工业园（振新路南） Yunyang industrial park, danyang city, jiangsu province (south zhenxin road) 0511-86391768 jsyckj789@163.com www.yuyue.com.cn		
生产单位 Manufacturer	江苏永昌新能源科技有限公司 Jiangsu Yongchang New Energy Technology Co. , Ltd. 丹阳市丹北镇后巷高桥 Houxiang Takahashi, Danbei town, Danyang city 0511-86391768 15921511944@139.com www.jsyckj.con		
测试单位 Test lab	上海化工院检测有限公司 Shanghai Institute of Chemical Industry Testing Co., Ltd. 中国.上海.普陀区云岭东路 345 号，200062 No.345 East Yunling Road, Putuo, Shanghai, China 200062 86-21-31765555 battery@ghs.cn www.ghs.cn		
电池信息 Battery information			
名称 Name	可充电锂电池组	品牌 Brand	/
型号 Type	YC-24VY	原始测试型号 Original tested type	/
标称电压(V) Nominal voltage	24	容量/能量 Capacity/energy	12Ah 288Wh
描述 Description	可充电锂离子电池组 Rechargeable Li-ion battery	锂含量(g) Li content	/
质量(kg) Mass	2.198	外观 Appearance	黑色塑胶外壳 Black plastics cement shell
测试信息 Test information			
原报告编号 Original test report No.	1121050349	测试报告日期 Date of test report	2021-06-18
测试标准 Test standard	联合国《关于危险货物运输的建议书试验和标准手册》第 38.3 章 UNITEDNATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria 38.3		ST/SG/AC.10/11/Rev.6/Amend.1
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 撞击 Impact	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)	/	38.3.3 (g)	/

扫描全能王 创建

样品图片 Sample Picture



可充电锂电池组 YC-24VY

24V12Ah 288Wh



结论 Conclusion	测试样品符合联合国《关于危险货物运输的建议书试验和标准手册》ST/SG/AC.10/11/Rev.6/Amend.1 38.3 标准要求。The tested samples meet the requirements of test items of the UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6/Amend.1 38.3		
备注 Remark	/		
签名 Signature 职务 Title	王寅 副总工程师 Vice chief engineer	签发日期 Issued date	2021-07-05

-验证码:124297-

报告结束

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