

SAFETY DATA SHEET

安全技術說明書

Issued/Revised date 發佈/更改日期: January 01 2026

Document No 文件編號.: MS-260101016

1. Product and Company Identification 產品與廠商資料

Product Name 產品名稱	Rechargeable Li-Polymer Battery 二次鋰電池組
Product Description 產品描述	Highpower/2959C0ADT/3570mAh,4S1P
Model Name 型號	BTY-M5B(15Q1)
Manufacturer Part Number 製造商零件編號	925QA087H/925QA087HB
Customer Part Number 客戶零件編號	OS9-15Q1001-SB3 S9N-1D4F210-SB3
Rating Watt hour (Wh) 電池電力(瓦小時)	15.48V _{nom} Typical Capacity 3570mAh/55.2Wh Rated Capacity 3500mAh/54.1Wh
Lithium content (gram) 鋰含量 (克)	4.284g

Details of the supplier of the product 產品供應商的詳細訊息:

Company (Taiwan) 台灣總公司	Name 名稱	SIMPLO TECHNOLOGY CO., LTD. 新普科技股份有限公司
	Address 地址	No. 471, Sec. 2, Bade Rd., Hu Kou Township, Hsinchu County, 30348, Taiwan 台灣, 新竹縣湖口鄉八德路二段471號
	Telephone 電話	+886-3-5695920
	Fax 傳真	+886-3-5695931
Manufacturer (Changshu) 製造商 (常熟廠)	Name 名稱	SIMPLO TECHNOLOGY(CHANGSHU)INC. 新世電子(常熟)有限公司
	Address 地址	No.888 Dong Nan Avenue, Chang Shu, Jiang Su Province, China 中國, 江蘇省常熟市高新技術產業開發區東南大道 888 號
	Telephone 電話	+86-512-52302255
	Fax 傳真	+86-512-52302277
Manufacturer (Chongqing) 製造商 (重慶廠)	Name 名稱	SIMPLO TECHNOLOGY(CHONGQING) INC 新普科技(重慶)有限公司

	Address地址	NO.2 Zongbao Avenue Shapingba District, Chongqing China 中國, 重慶市沙坪壩綫保大道二號
	Telephone電話	+86-23-61718899
	Fax傳真	+86-23-61710488
Manufacturer (HUAPU) 製造商 (華普廠)	Name名稱	HUAPU TECHNOLOGY(CHANGSHU)INC. 華普電子(常熟)有限公司
	Address地址	No.888 Dong Nan Avenue, Chang Shu, Jiang Su Province, China 中國, 江蘇省常熟市高新技術產業開發區東南大道 888 號
	Telephone電話	+86-0512-52302255
	Fax傳真	+86- 0512-52302277
Manufacturer (VIETNAM) 製造商 (越南廠)	Name名稱	SIMPLO TECHNOLOGY (VIETNAM) CO., LTD 新普科技 (越南) 有限公司
	Address地址	Lot CNSG-07, Van Trung Industrial Park, Van Trung Commune, Viet Yen District, Bac Giang Province, Vietnam 越南北江省越安縣雲中社雲中工業區 CNSG-07 地塊
	Telephone電話	+84-204-3688802
Manufacturer (VIETNAM) 製造商 (越南廠)	Name名稱	SIMPLO TECHNOLOGY (VIETNAM) CO., LTD. 新普科技 (越南) 有限公司
	Address地址	Lot CN-08, Hoa Phu Industrial Park, Xuan Cam Commune, Bac Ninh Province, Vietnam 越南北寧省春錦社和富工業區 CN-08 地塊
	Telephone電話	+84-020-436-88800
Emergency phone number 緊急電話: +886-3-5695920		

2.Hazard(s) identification 危害識別

*The battery is considered as an 「 article 」 The product is outside of the scope of GHS system
 電池被視為「成品」, 產品不在GHS體系涵蓋範圍內

Main Hazards主要危害	When the battery is in extreme pressure deformation, high-temperature environment, overload, short-circuit condition, or disassemble the battery, an explosion of fire and chemical burn hazards may occur. 當電池處於擠壓變形、高溫環境、過載、短路狀態或拆卸電池時, 可能會發生爆炸火災和化學灼傷危險。
Health Hazards健康危害	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 與電池電解液接觸可能會刺激皮膚。眼睛和粘膜。火災會產生刺激性的腐蝕性和/或有毒氣體。煙霧可能導致頭暈或窒息。
Description of any hazards not otherwise classified 其他未分類危險性說明	Do not dismantle, open or shred the battery, the ingredients contained within could be harmful. 請勿拆卸、打開或撕碎電池，其中含有的成分可能有害
Ingredient with unknown acute toxicity 未知的急性毒性成份	No information available. 無資料

3. Composition / Identification on Ingredients 成分組成信息

Mixtures information: ingredients contained within the battery

混合物信息：電池中包含的成分

Chemical name 化學名稱	CAS No.化學品編號	Weight-%重量%
Cobalt lithium dioxide 鈷酸鋰	12190-79-3	44.40%
Graphite 石墨	7782-42-5	23.77%
Copper 銅	7440-50-8	9.39%
Aluminium 鋁	7429-90-5	6.52%
Ethylene carbonate 碳酸乙烯酯	96-49-1	2.71%
Ethyl methyl carbonate 碳酸甲乙酯	623-53-0	2.71%
Diethyl Carbonate 碳酸二乙酯	105-58-8	2.71%
Lithium hexafluorophosphate 六氟磷酸鋰	21324-40-3	1.41%
Polyethylene 聚乙烯	9002-88-4	1.29%
Aluminum oxide 氧化鋁	1344-28-1	0.73%
Nylon-6 尼龍-6	25038-54-4	0.60%
Polyvinylidene fluoride 聚偏氟乙烯樹脂	24937-79-9	0.54%
propylene carbonate 碳酸丙烯酯	108-32-7	0.54%
1,3-Propanesultone 1,3-丙烷磺內酯	1120-71-4	0.54%
Poly(ethylene terephthalate)	25038-59-9	0.48%

聚對苯二甲酸乙二醇酯		
1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1-difluoroethene 1, 1, 2, 3, 3, 3-六氟-1-丙烯與 1, 1-二氟乙烯的聚合物	9011-17-0	0.44%
POLY(PROPYLENE-CO-ETHYLENE) 丙烯乙烯共聚	9010-79-1	0.41%
2,5-Furandione, polymer with 1-propene 2, 5-呋喃二酮，與 1-丙烯的聚合物	25722-45-6	0.41%
Vinylene carbonate 碳酸亞乙烯酯	872-36-6	0.22%
Carbon Black 炭黑	1333-86-4	0.18%

The exact percentage (concentration) of composition has been withheld as a trade secret
 組成的精確百分比（濃度）已作為商業機密保留

4. First Aid Measures 急救措施

(a) Description of first aid measures 急救措施說明

Caution! No effect under routine handling and use. If exposure to internal materials within cell due to damaged outer metal casing, the following actions are recommended.

警告！在日常處理和使用下沒有影響。如果由於外部金屬外殼損壞而接觸到電池內部材料，建議採取以下措施。

Inhalation: 吸入	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if you feel unwell. 將傷者轉移到空氣新鮮處，保持呼吸舒適的休息姿勢。如果您感到不適，請就醫。
Skin contact: 皮膚接觸	Immediately flush skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing and shoes before reuse. Get medical aid. 若接觸到電池內物質，脫去受污染的衣物和鞋襪，立即用清水沖洗15分鐘以上。若刺激持續請就醫。
Eye contact: 眼睛接觸	Rinse cautiously with water for 15-20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. 若接觸到電池內物質，用水小心沖洗 15-20 分鐘。取下隱形眼鏡（如果有且易於操作）。若眼睛刺激持續請就醫。

<p>Ingestion 食入</p>	<p>Swallowing battery will be damaged to the respiratory tract and cause chemical burns to the stomach; in serious conditions it will cause Permanent damage. 食入會對呼吸道產生傷害、對腸胃產生燒傷，嚴重會造成永久性損害。</p>
-------------------------	--

(b) Most important symptoms/effects, acute and delayed 主要症狀，急性和遲發性效應

No effect under routine handling and use 在日常處理和使用下沒有影響

(c) Immediate medical attention and special treatment 醫療護理和特殊治療

Note to physicians: Treat symptomatically and supportively. 醫生須知：對症治療。

5. Fire Fighting Measures 滅火措施

<p>General Hazard 一般危害</p>	<p>The battery is not flammable under normal conditions. If the battery is incinerated, punctured, or exposed to excessive heat, internal organic materials can ignite. Combustion products may include, but are not limited to: hydrogen fluoride (HF), carbon monoxide (CO), and carbon dioxide (CO₂). 電池在正常情況下不易燃。若電池焚燒、穿刺或暴露於高溫，內部有機物料可能燃燒。燃燒產物可能包括但不限於：氫氟酸 (HF)、一氧化碳 (CO) 及二氧化碳 (CO₂)</p>
<p>Extinguishing Media 滅火媒介</p>	<p>Dry chemical powder (ABC or Class D) - suitable for metal and lithium-ion fires. Carbon dioxide (CO₂) - suitable for small fires. Foam - may be used for surface fires. Sand or dry earth - can smother small battery fires. Water - can be used for cooling adjacent batteries, but avoid direct contact with burning lithium-metal cells. 乾粉滅火器 (ABC 或 D 類) - 適用於金屬及鋰離子電池火災。 二氧化碳滅火器 (CO₂) - 適用於小規模火災。 泡沫滅火器 - 可用於表面火災。 沙土或乾土 - 可覆蓋小型電池火災以隔絕氧氣。 水 - 可用於冷卻鄰近電池，但避免直接噴灑燃燒的鋰金屬電池。</p>
<p>Special Firefighting Instructions</p>	<p>Remove batteries from the fire area if it is safe to do so.</p>

<p>特殊消防指示</p>	<p>Batteries may explode or vent if heated above 125°C (257°F). Use caution when spraying water on large battery fires to prevent short-circuits or violent reactions.</p> <p>若安全，應將電池從火場移開。</p> <p>若電池溫度超過 125°C，可能爆炸或釋放氣體。對大型電池火災噴水時需小心，以免短路或劇烈反應。</p>
<p>Firefighting Equipment / Personal Protection 消防裝備/個人防護</p>	<p>Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA).</p> <p>Wear full protective firefighting gear including gloves, helmet, and protective clothing.</p> <p>使用經 NIOSH/MSHA 認證的全罩式自給式呼吸器 (SCBA)。配戴完整防護消防裝備，包括手套、頭盔及防護衣物。</p>

6. Accidental Release Measures 洩漏處理方法

<p>Personal precautions, protective equipment and emergency procedures 作業人員防護措施、防護設備和應急處置程式</p>	<p>Personal Precautions: Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.</p> <p>作業人員注意事項：避免接觸皮膚、眼睛或衣服。確保作業場所通風充足，根據需要使用個人防護裝備，疏散人員到安全區域。</p>
<p>Methods and materials for containment and cleaning up 洩露化學品的收容和清理方法</p>	<p>Methods for Containment: Prevent further leakage or spillage if safe to do so.</p> <p>Methods for cleaning up: Pick up and transfer to properly labeled containers.</p> <p>抑制方法：在安全的情況下防止進一步洩漏或溢出。</p> <p>清理方法：撿起並轉移到張貼適當標籤的容器中。</p>

7. Handling and Storage 處理和儲存

<p>Precautions for safe handling 安全處理的注意事項</p>	<p>Do not expose the battery to excessive physical shock or vibration. Short-circuiting should be avoided. However, accidental short-circuiting for a few seconds will not seriously affect the battery. Prolonged short circuits will</p>
--	--



	<p>cause the battery to rapidly lose energy, could generate enough heat to burn skin. Sources of short circuits include jumbled batteries in bulk containers, coins, metal jewelry, metal covered tables, or metal belts used for assembly of batteries in devices. To minimize risk of short-circuiting, the protective case supplied with the battery should be used to cover the terminals when transporting or storing the battery. Do not disassemble or deform the battery. Should an individual cell within a battery become ruptured, do not allow contact with water.</p> <p>不要讓電池受到過度的物理衝擊或振動。應避免短路。但是，幾秒鐘的意外短路不會對電池造成嚴重影響。長時間的短路會導致電池迅速失去能量，可能產生足夠的熱量來灼傷皮膚。短路的來源包括散裝容器中的雜亂電池、硬幣、金屬首飾、金屬覆蓋的桌子或用於在設備中組裝電池的金屬帶。為將短路風險降至最低，在運輸或存放電池時，應使用電池隨附的保護盒蓋住端子。請勿拆卸或變形電池。如果電池中的單顆電池發生破裂，請勿與水接觸。</p>
<p>Conditions for safe storage, including any incompatibilities 安全儲存條件，包括任何不相容性</p>	<p>The lithium ion battery should be between 25% and 75% of full charge when stored for a long period of time. Stored in a cool, dry, and well-ventilated area. Elevated temperatures can result in loss of battery performance, leakage, or rust. Do not expose the battery to open flames.</p> <p>鋰離子電池在長時間存放時應充滿電量的 25% 至 75%。存放在陰涼、乾燥、通風良好的地方。溫度升高會導致電池性能下降、洩漏或生鏽。不要將電池暴露在明火中。</p>

8. Exposure Controls / Personal Protection 接觸控制/個人防護

Appropriate Engineering Controls 適當的工程控制	Choose the suitable ventilation equipment; provide sufficient quantity of fire extinguishers, gas mask and water; equip with metal storage containers and bathing equipment 選擇合理的通風設備，提供足夠數量的防毒面具滅火器及水源，配置存放電池的金屬容器和洗浴設備。
Respirator Protection 呼吸系統防護	If toxic gases or fumes are present when handling a battery leak, wear appropriate respiratory protection (such as a gas mask). 若處理電池洩漏時有有毒氣體或煙霧，佩戴適當的呼吸防護裝備（如防毒面具）。
Eye/Face Protection 眼睛/面部防護	Avoid contact with leaking liquid in the eyes; wear safety goggles if necessary. 避免洩漏液體進入眼睛，必要時佩戴護目鏡。
Skin Protection 皮膚防護	Hand protection: Wear safety gloves Foot Protection: Steel toed shoes recommended for large container handling Body protection: Wear appropriate protective clothing 手部防護，請佩帶安全手套。 足部防護，處理大量電池時建議穿著鋼頭鞋 身體防護：穿戴一般作業防護服。
Other Protection 其他防護	No smoking, drinking and eating at working site, Wash thoroughly after handling 工作場所嚴禁吸菸、進食和飲水。工作後淋浴更衣

9. Physical and Chemical Properties 物理和化學特性

Physical Properties 物理特性	Physical state 物理狀態	Solid 固體
	Appearance 外觀	Black Plastics or Mylar film shell 黑色塑膠或聚酯薄膜外殼
	Color 顏色	Black 黑色
	Odor 氣味	Odorless 無味
	Odor Threshold 嗅覺閾值	No information available 無資料
Chemical Properties 化學特性:		
Property 特性	Values 值	Remarks/ Method 備註



pH 酸鹼度	No data available無資料	None known未知
Melting / freezing point 熔點和冰點	No data available無資料	None known未知
Boiling point / boiling range 沸點/沸程	No data available無資料	None known未知
Flash Point 閃點	No data available無資料	None known未知
Evaporation Rate 蒸發率	No data available無資料	None known未知
Flammability (solid, gas) 易燃性 (固體、氣體)	No data available無資料	None known未知
Flammability Limit in Air 空氣中的易燃性限制 Upper/ Lower flammability 上下燃點限制	No data available無資料	-
Vapor pressure 蒸氣壓力	No data available無資料	None known未知
Vapor density 蒸汽密度	No data available無資料	None known未知
Specific Gravity 比重	No data available無資料	None known未知
Water Solubility 水溶性	No data available無資料	None known未知
Solubility in other solvents 其他溶劑中的溶解度	No data available無資料	None known未知
Partition coefficient n-octanol/water: n-辛醇/水分配係數(對數值)	No data available無資料	None known未知
Autoignition temperature 自燃溫度	130°C	None known未知
Decomposition temperature 分解溫度	No data available無資料	None known未知
Kinematic viscosity 運動黏度	No data available無資料	None known未知
Dynamic viscosity 動態黏度	No data available無資料	None known未知
Explosive properties 爆炸特性	No data available無資料	None known未知
Oxidizing Properties 氧化特性	No data available無資料	None known未知

10. Stability and Reactivity 安定性與反應性

Reactivity 反應性	None during normal operating or handling conditions. 在正常操作或處理條件下,無不良反應。
Chemical stability 化學穩定性	It is stable under normal operating conditions, but damage to the casing, overcharging, or over discharging may lead

	to thermal runaway, causing fire or explosion. 在正常操作條件下穩定，但若外殼破損、過充或過放可能引發熱失控，導致火災或爆炸。
Possibility of Hazardous Reactions 發生危險反應的可能性	None under normal processing 正常處理下，無
Hazardous reaction 危險反應	It may react violently when in contact with water or moisture. 與水或濕氣接觸時，可能發生劇烈反應。
Conditions to avoid 應避免的條件	Avoid high temperatures, moisture, extreme mechanical pressure, or excessive charging and discharging. 避免高溫、濕氣、極端機械壓力或過度充放電。
Incompatible materials 不相容物質	Strong acids. Strong oxidizing agents. Strong bases. 強酸。強氧化劑
Hazardous Decomposition Products 危險分解產物	Carbon oxides. 碳氧化物。

11. Toxicological Information 毒性學信息

(a) Information on the likely routes of exposure 可能接觸的途徑

Product Information 產品資訊	Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture 如有破裂，根據已知或提供的資訊，產品不存在急性毒性危害。
Inhalation 吸入	No effect under routine handling and use for sealed battery. If battery is broken, inhale fume/dust may cause irritation, chemical burns or lung edema. 密封電池在常規處理和使用下無影響。如果電池壞了，吸入煙霧/灰塵可能會引起刺激、化學灼傷或肺水腫。
Eye Contact 眼部接觸	Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to eyes. May cause redness, itching, and pain. May cause temporary eye irritation. 沒有關於該物質或混合物的具體測試資料。成分可能是刺激物，刺激眼睛，可能會引起發紅、搔癢和疼痛可能會引起暫時性的眼睛刺激。
Skin Contact 皮膚接觸	Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to skin. Prolonged contact may cause redness and irritation. 沒有關於該物質或混合物的具體測試資料。成分可能是刺激物，

	長時間的接觸皮膚可能會引起發紅和刺激。
Ingestion 食入	Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. 沒有關於該物質或混合物的具體測試資料。食入可能會刺激粘膜，也可能引起胃腸道刺激、噁心、嘔吐和腹瀉。

(b) Information on toxicological characteristics 毒理學特徵信息

This product does not elicit toxicological properties during routine handling and use. If the cells are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers. 本產品在日常處理和使用過程中不會產生毒理學特性。如果電池因誤用或損壞而打開，請立即丟棄。內部成分是刺激物和過敏原。

Acute Toxicity 急性毒性	No information available. 無資料
Skin corrosion/irritation 皮膚腐蝕/刺激	No information available. 無資料
Serious eye damage/irritation: 嚴重的眼睛損傷/刺激	No information available. 無資料
Respiratory sensitization 呼吸過敏	No information available. 無資料
skin sensitization 皮膚過敏	No information available. 無資料
Carcinogenicity 致癌性	No information available. 無資料
Germ Cell Mutagenicity 生殖細胞致突變性:	No information available. 無資料
Reproductive Toxicity 生殖毒性	No information available. 無資料
STOT-Single Exposure 特定目標器官毒性-單次接觸	No information available. 無資料
STOT-Repeated Exposure 特定目標器官毒性-重覆接觸	No information available. 無資料
Aspiration Hazard 吸入危害	No information available. 無資料

12. Ecological Information 生態學信息

Ecotoxicity 生態毒性	No information available. 無資料
Persistence and Degradability 持久性和降解度	No information available. 無資料
Bioaccumulations Potential 潛在的生物累積性	No information available. 無資料
Mobility in soil 在土壤中的流動性	No information available. 無資料
Other adverse effects 其他有害效應	No information available. 無資料

13. Disposal Consideration 廢棄處置

(a) Disposal methods 處置方法:

Disposal methods: This material, as supplied, is not a hazardous waste according to Federal regulations (40CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact

with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

根據聯邦法規(40CFR 261)·材料不是危險廢物·如果與危險廢物混合或以其他方式接觸·經過添加化學品·或加工改變·該材料可能成為危險廢物·請參考40 CFR 261·以確定已改變的材料是否為危險廢物·有關其他要求·請諮詢適當的州、地區或地方法規。

(b) Contaminated Packaging 受污染的包裝

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

根據聯邦、州和地方法規進行處理

14. Transport Information 運輸信息

(a) Only Lithium Battery During: This report applies to by land, by air by sea.

產品為鋰離子電池單獨運輸：本報告適用於海運、空運和陸運。

<p>Transport 運輸</p>	<p>The product has successfully passed the UN 38.3 tests as specified in the United Nations “Manual of Tests and Criteria for the Transport of Dangerous Goods,” as well as the 1.2 m drop test in accordance with Special Provision 188. Additionally, in compliance with IATA Packing Instruction 965, Section IB, each package must withstand a 3-meter stacking test. The total net weight of lithium batteries per package is less than 10 kg.</p> <p>本產品已通過聯合國《危險貨物運輸建議書：試驗與標準手冊》(UN38.3)測試·並符合《規章範本》(SP188)中1.2米跌落測試要求·同時·依據IATA PI 965 第IB節規定·每個包裝都須能承受3米堆疊測試·產品內鋰電池總淨重小於10公斤。</p>
<p>RID /ADR (2025 Edition) 鐵路危險品運輸規則/歐洲道路運輸危險品規則(2025年版)</p>	<p>In accordance with Special Provision SP188 of ADR/RID, transport is permitted, provided that the requirements of Section 2.2.9.1.7 (a), (e), (f) (if applicable), and (g) are met, and that the manufacturer or subsequent distributor makes available a test summary in accordance with Part III, Section 38.3, paragraph 38.3.5 of the United Nations Manual of Tests and Criteria. Batteries shall be packed in inner packaging, outer packaging, or overpack to prevent short circuits and damage. Additional requirements may apply depending on the consignment size and road/rail transport conditions.</p> <p>根據 ADR/RID 中 特殊規定 SP188 運輸·但須符合第 2.2.9.1.7</p>



	<p>條款中的 (a)、(e)、(f) (如適用) 及 (g) 項之要求，且製造商或後續分銷商應提供符合聯合國《試驗與標準手冊》第三部分第 38.3 小節第 38.3.5 段規定之試驗概要。電池包裝應採用內包裝 / 外包裝或加強包裝以防止短路及損傷。視運輸量及車輛 / 鐵路運輸條件，可能另有附加要求。</p>
<p>IATA DGR (67th Edition): 國際航空運輸協會的危險品規則 (67版)</p>	<p>UN3480 聯合國運輸編號 UN3480</p> <p>Transport Hazard Class: 9 運輸危險類別: 第9類</p> <p>The product shall comply with ICAO Technical Instructions / IATA DGR Packing Instruction 965, Section IB (2025–2026 Edition). Pursuant to IATA DGR (67th Edition), Section 3.9.2.6.1(g), for cells or batteries manufactured after 30 June 2003, the manufacturer and subsequent distributors shall provide a UN 38.3 Test Summary as specified in Part III, Section 38.3, paragraph 38.3.5 of the United Nations Manual of Tests and Criteria.</p> <p>State of Charge (SoC): Lithium-ion batteries must be shipped with a maximum SoC of 30% of their rated capacity. Batteries with a SoC exceeding 30% may not comply with Section IB and are subject to additional restrictions or may require alternative shipping arrangements.</p> <p>All batteries shall be properly packed, labeled, and marked in accordance with ICAO/IATA requirements to prevent short circuits, mechanical damage, and overheating during transport.</p> <p>本產品須符合 國際民用航空組織 (ICAO) 技術說明 / IATA DGR 包裝說明 965 部分 IB (2025~2026 版)。</p> <p>依據 IATA DGR(第 67 版)第 3.9.2.6.1(g) 條款，於 2003 年 6 月 30 日之後生產的鋰電池或電池組，其製造商及出廠後的銷售商應提供 聯合國《危險貨物試驗與標準手冊》第三部分第 38.3 小節、第 38.3.5 段規定的 UN 38.3 試驗摘要。</p> <p>鋰離子電池運輸時，其充電狀態不得超過額定容量的 30%。若電池充電狀態超過 30%，則可能不符合 Section IB 的運輸要求，需依附加限制或採用其他運輸方式。</p> <p>電池須依照 ICAO/IATA 規定妥善包裝、標示與標籤，以防短路、機械損傷及運輸過程中過熱。</p>
<p>IMO IMDG CODE (2024 Edition) 國際海運危險貨物規則(2024 版)</p>	<p>In accordance with Section 188 of the International Maritime Dangerous Goods (IMDG) Code, Amendment 42-24, the manufacturer and post-shipment distributor of this product (lithium batteries or battery packs) shall provide a UN38.3 Test Summary as</p>

	<p>required by Section 38.3.5, Subsection 38.3, Part III of the United Nations Manual of Tests and Criteria to ensure compliance with transport safety requirements</p> <p>根據《國際海上危險貨物規範IMDG》修正案42-24版第188條規定，本產品（鋰電池或電池組）的製造商及出廠後銷售商應提供聯合國《試驗與標準手冊》第三部分第38.3小節第38.3.5段所要求的 UN38.3 試驗概要，以符合運輸安全要求。</p>
--	--

(b) Test results of the UN Recommendation on the Transport of Dangerous Goods
聯合國關於危險貨物運輸的建議的測試結果

Manual of Test and Criteria (38.3 Lithium battery) 測試和標準手冊 (38.3鋰電池)			
No 編號	Test item 項目	Test Results 測試結果	Remark備註
T1	Altitude Simulation 高度模擬測試	Pass通過	
T2	Thermal Test 溫度測試	Pass通過	
T3	Vibration 振動測試	Pass通過	
T4	Shock 衝擊測試	Pass通過	
T5	External Short Circuit 外部短路測試	Pass通過	
T6	Impact/Crush 撞擊/擠壓測試	Pass通過	
T7	Overcharge 過度充電測試	Pass通過	
T8	Forced Discharge 強制放電測試	Pass通過	

(c) UN regulation 聯合國法規

UN3480	Batteries only, IATA Dangerous Goods Regulations, packing instruction 965 Section IB. 單獨電池包裝，適用 IATA 危險貨物規則，滿足包裝說明 965 的基本要求和第 IB 部分的規定。
UN3481	Lithium ion batteries packed with equipment, IATA Dangerous Goods Regulations, packing instruction 966 Section II 鋰離子電池和設備一起包裝，適用 IATA 危險貨物規則，滿足包裝說明 966 的基本要求和第二部分的規定。
UN3481	Lithium ion batteries contained in equipment, IATA Dangerous Goods Regulations, packing instruction 967 Section II. 鋰離子電池含於設備中，適用 IATA 危險貨物規則，滿足包裝說明 967 的基本要求和第二部分的規定。

15. Regulatory Information 法規信息

(a) Applicable regulations 適用法規:

Dangerous Goods Regulations 《危險品規則》

RID /ADR 鐵路危險品運輸規則/歐洲道路運輸危險品規則

IMO International Maritime Dangerous Goods Code relevant regulations 《國際海運危險貨物規則》
Refer to U. N., national, local regulations. 參照聯合國·國家·地方性法規。

(b) Waste disposal requirements 廢棄物處理要求:

Battery labeling, disposal, and recycling should comply with the requirements of the EU Battery Regulation (EU) 2023/1542.

電池的標籤、處置和回收應符合歐盟電池法(EU) 2023/1542.的規定

The battery pack should be recycled and processed by a professional organization.

16. Other Information 其他信息

(a) Preparation and revision information 編制和修訂信息

The information contained in this Safety Data Sheet is based on the current state of knowledge and applicable regulations.

This Safety Data Sheet provides guidance regarding the health, safety, and environmental aspects of the product, but should not be construed as any guarantee of technical performance or suitability for specific applications.

The information contained herein is provided in accordance with current knowledge and legislation.

本安全數據表所載資訊均基於當前的知識狀況及現行法規。

本安全數據表提供關於產品健康、安全及環境方面的指引，但不應視為對特定應用之技術性能或適用性的任何保證。

本安全數據表所載信息均以現行知識及立法為依據。

(b) Abbreviations and acronyms 縮略語和首字母縮寫

ACGIH	American Conference of Governmental Industrial Hygienists 美國政府工業衛生學家委員會
OSHA:	The United States Occupational Safety and Health Administration. 美國職業安全與健康管理局
GHS	Globally Harmonized System of Classification and Labelling of Chemicals 全球化學品統一分類和標籤制度
CAS	Chemical Abstracts Service美國化學文摘社
DOT	US Department Of Transportation美國交通部
RID	Regulation for rail International transportation 國際鐵路危險貨物運輸規則
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road 關於公路運輸危險貨物歐洲協定
IMO IMDC CODE	International Maritime Organization, International Maritime Dangerous Goods Code

	國際海事組織, 國際海運危險或貨物規則
ICAO	International Civil Aviation Organization 國際民用航空組織
IATA	International Air Transport Association 國際航空運輸協會
PI	Packaging Instruction 包裝說明
TSCA	Toxic Substances Control Act, The American chemical inventory. 美國化學品有毒物質控制法
IECSC	Inventory of existing chemical substances in China. 中國現有化學物質清單

(c) Disclaimer 免責聲明

The information contained in this Safety Data Sheet (SDS) is provided fully and accurately to the best of our knowledge. However, it is supplied without any warranty regarding its completeness or absolute accuracy. This SDS has been prepared to provide guidance on safety precautions for users who have received professional training. Individual users of this SDS should make their own independent judgment regarding its applicability under specific conditions. In such cases, we do not assume any responsibility for resulting damages.

本安全數據表 (SDS) 所載資訊均依據我們目前所知提供完整且準確的資料。然而，對於其完整性或絕對準確性，本公司不提供任何保證。本安全數據表旨在為受過專業培訓的使用者提供安全防護指引。個別使用者應根據具體情況自行判斷本 SDS 的適用性。在此類特殊情況下，本公司不承擔任何因使用本 SDS 所產生的損害責任。

----- End of the SDS -----