

Certificado de batería

Datos de seguridad y transporte de la batería de su producto.



PARA EL PRODUCTO

Paiseec R3 – Andadera Eléctrica 3 en 1

SKU: AFSE-R3-P1

✈ Apta para viajar en avión



Datos de la batería

158.4 Wh

Energía

24 V

Voltaje

6.6 Ah

Capacidad

Litio

Química

Sí

Batería removible

Aprobada

Prueba UN 38.3



APTA PARA AVIÓN • Clase 9 — batería de litio

158.4 Wh: entre 100 y 160 Wh. Normalmente se permite en cabina con aviso previo a la aerolínea.



¿Dudas sobre la batería? Escriba a Marla por WhatsApp

Le ayudamos con la carga, el cuidado, el servicio y sus viajes.
Escanee el código o escriba al:

WhatsApp 55 9990 2396

s.andafacil.com/wabateriaafser3p1



Cómo viajar con su producto

1. Al reservar, avise que viaja con una silla eléctrica con batería de litio removible.
2. En el mostrador, retire la batería, proteja sus terminales (cinta o bolsa) y llévela en cabina.
3. La silla, apagada y plegada, viaja documentada o se entrega en la puerta del avión.
4. Muestre este certificado y los originales del fabricante si se los piden.



Consejo de Don Andy: avise a su aerolínea al reservar que viaja con una silla eléctrica y lleve este certificado impreso y en su celular.

Evidencia del fabricante

Documento	Detalle
Nombre de la mercancía (como aparece en el certificado)	Lithium Ion Battery
Modelo de batería	ACF83AV060
Fabricante	Guangdong BAK Benhoo Technology Co., Ltd. (fábrica); solicitante Zhejiang Paiseec Robot Technology Co., Ltd.
Resumen de prueba UN 38.3	Report No. CTB26061510001D01 · Shenzhen CTB Testing Technology Co., Ltd. · 2026.07.15
Hoja de datos de seguridad (MSDS)	Report No. CTB26061510001D02 · Shenzhen CTB Testing Technology Co., Ltd. · 2026.07.15

Originales del fabricante (páginas siguientes): **2**

Cada aerolínea define sus propias reglas: confírmelas al reservar. ANDAFACIL identifica el producto; los datos técnicos provienen de los certificados originales que se adjuntan.

Battery certificate

Safety and transport data for your product's battery.



FOR THE PRODUCT

Paiseec R3 – Andadera Eléctrica 3 en 1

SKU: AFSE-R3-P1

✈️ **Approved for air travel**



Battery data

158.4 Wh

Energy

24 V

Voltage

6.6 Ah

Capacity

Lithium-ion

Chemistry

Yes

Removable
battery

Passed

UN 38.3 test



APPROVED FOR AIR TRAVEL • Class 9 – lithium battery

158.4 Wh: between 100 and 160 Wh. Usually allowed in the cabin with prior notice to the airline.



Battery questions? Message Marla on WhatsApp

We help with charging, care, service and travel (Spanish and English).
Scan the code or write to:

WhatsApp 55 9990 2396

s.andafacil.com/wabateriaafser3p1



How to travel with your product

1. When booking, tell the airline you travel with a power wheelchair with a removable lithium battery.
2. At check-in, remove the battery, protect its terminals (tape or bag) and carry it in the cabin.
3. The chair, switched off and folded, is checked in or handed over at the aircraft door.
4. Show this certificate and the manufacturer originals when asked.



Don Andy's tip: tell your airline when booking that you travel with a power wheelchair, and carry this certificate printed and on your phone.

Manufacturer evidence

Document	Detail
Goods name (as printed on the certificate)	Lithium Ion Battery
Battery model	ACF83AV060
Manufacturer	Guangdong BAK Benhoo Technology Co., Ltd. (fábrica); solicitante Zhejiang Paiseec Robot Technology Co., Ltd.
UN 38.3 Test Summary	Report No. CTB26061510001D01 · Shenzhen CTB Testing Technology Co., Ltd. · 2026.07.15
MSDS	Report No. CTB26061510001D02 · Shenzhen CTB Testing Technology Co., Ltd. · 2026.07.15

Manufacturer originals (following pages): **2**

Each airline sets its own rules: confirm them when booking. ANDAFACIL identifies the product; the technical data comes from the original certificates attached.



UN38.3 TEST REPORT

UN38.3 测试报告

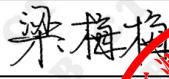
Report No. : CTB26061510001D01
报告编号 :
Name of Sample : Lithium Ion Battery
产品名称 : 锂离子电池
Model Specification : ACF83AV060
产品型号 :
Type : 24V 6.6Ah 158.4Wh
规格 :
Applicant : Zhejiang Paiseec Robot
申请商 : Technology Co., Ltd.
浙江派斯科机器人科技有限公司
Classification of test : Commission Test
检测类别 : 委托测试

Shenzhen CTB Testing Technology Co., Ltd.

深圳市环测威检测技术有限公司



TEST REPORT**测试报告**

Report No..... 报告号.....	CTB26061510001D01	
Testing Laboratory Name 测试实验室.....	Shenzhen CTB Testing Technology Co., Ltd. 深圳市环测威检测技术有限公司	
Address 地址.....	1&2/F., Building A, No. 26, Xinhe Road, Xinqiao, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China 广东省深圳市宝安区新桥街道新桥社区新和大道26号A栋1层、二楼	
Contents..... 页数.....	20 pages	
Date of issue 签发日期.....	2026.07.15	
Written by (+ signature) 编制(签名)	Mae/梁梅梅	
Checked by (+ signature) 审核(签名)	Terry Zhou/周鸿	
Approved by (+ signature) 批准(签名)	Ming Zhu/朱慧明	
Applicant's Name 申请商.....	Zhejiang Paiseec Robot Technology Co., Ltd. 浙江派斯科机器人科技有限公司	
Address 地址.....	3-4/F, Building 12, No. 460 Xishan Road, Dongcheng Street, Yongkang City, Jinhua City, Zhejiang Province, China 浙江省金华市永康市东城街道锡山路460号12号楼3-4楼	
Factory 生产单位.....	Guangdong BAK Benhoo Technology Co., Ltd. 广东比克奔虎新能源科技有限公司	
Address 地址.....	Floor 3, Building A, Industrial Park, No. 55 Zengkeng Road, Zengkeng Team, Xintang Village, Qiuchang Sub-district, Huiyang District, Huizhou City 惠州市惠阳区秋长街道新塘村增坑小组增坑路55号工业园A栋3楼	
Telephone Number..... 联系电话.....	15772237032	
Email address..... 邮件地址.....	jswy@baknp.com	
Website..... 网址.....	/	
Standard 标准.....	UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.8, Subsection 38.3) 联合国《关于危险货物运输的建议书 试验和标准手册》(第8版) 38.3节。	

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Tel: 4008-707-283

Web: <http://www.ctb-lab.net>Email: ctb@ctb-lab.net

Name of sample.....:	Lithium Ion Battery
样品名称.....:	锂离子电池
Trade Mark	/
商标.....:	
Model.....:	ACF83AV060
型号.....:	
Ratings.....:	24V 6.6Ah 158.4Wh
额定值.....:	
Quantity.....:	30 Cells, 16 Battery
样品数量.....:	30个电芯, 16个电池组
Appearance.....:	Black Almost Cuboid
样品外观.....:	黑色近长方体

Details information of the battery and the cell built in the battery, as following:

电池和电芯的详细信息见下表:

Product 产品	Cell 电芯	Battery 电池
Model 型号	LiFePO4Cell-32700-7000mAh	ACF83AV060
Nominal voltage 标称电压	3.2V	24V
Rated capacity 额定容量	7Ah	6.6Ah
Standard charge current 标准充电电流	1.4A	1.4A
Standard discharge current 标准放电电流	1.4A	1.4A
Maximum continuous charging current 最大连续充电电流	3.5A	3.5A
Maximum continuous discharge current 最大连续放电电流	25A	25A
Charge voltage 充电电压	3.65V	28.8V
Charge cut-off current 充电截止电流	0.14A	0.14A
Discharge voltage 放电电压	2.5V	20V
Dimension 尺寸	Φ32.54*70.76(mm)	191.93*168.94*49.12(mm)
Weight 重量	143.38g	1800.00g

Possible test case verdicts: 报告中可能用到的结论标识:	
Test case does not apply to the test object..... 测试项目不适用于该产品.....	N/A 不适用
Test item does meet the requirement 测试项目符合标准的要求.....	P(ass) 合格
Test item does not meet the requirement 测试项目不符合标准的要求.....	F(ail) 不合格
Testing: 测试:	
Date of sample received..... 样品接收日期.....	2026.06.25
Date(s) of performance of test..... 测试执行日期.....	2026.06.25~2026.07.09
Test environment conditions..... 检测环境条件.....	Ambient temperature:20℃±5℃, Ambient humidity:45%-75%. 环境温度: 20℃±5℃, 环境湿度: 45%-75%
Test result: Pass 检验结果: 通过	

Description and illustration of the sample/样品说明及描述:

The sample is a lithium ion battery(8S1P),the sample's status is good/样品为锂离子电池（8S1P），样品状况良好。

Test items and conclusion./测试项目及结论

Item 项目	Sample Number 样品编号	Standard 标准	Conclusion 结论
Altitude simulation 高空模拟	B01-B04 B05-B08	UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.8, Subsection 38.3) 联合国《关于危险货物运输的建议书 试验和标准手册》（第8版）38.3节。	PASS 合格
Thermal test 耐热测试			PASS 合格
Vibration 振动测试			PASS 合格
Shock 冲击测试			PASS 合格
External short circuit 外部短路			PASS 合格
Crush/ Impact 挤压/撞击	C01-C05 C06-C10		PASS 合格
Overcharge 过充电测试	B09-B12 B13-B16		PASS 合格
Forced discharge 强制放电测试	C11-C20 C21-C30		PASS 合格

Sample Pretreatment /样品预处理:

Sample Number/样品编号	State/ 状态
B01-B04, B09-B12	Batteries at first cycle,in fully charged state. 第1个充放电周期完全充电状态的电池。
B05-B08, B13-B16	Batteries after 25th cycle,in fully charged state. 第25个充放电周期后完全充电状态的电池。
C01-C05	Cell at first cycle at 50% of the design rated capacity. 第1个充放电周期后充电到设计额定容量的50%的电芯。
C06-C10	Cell after 25th cycle at 50% of the design rated capacity. 第25个充放电周期后充电到设计额定容量的50%的电芯。
C11-C20	Cells at first cycle, in fully discharged state. 第1个充放电周期完全放电状态的电芯。
C21-C30	Cell after 25th cycle, ending in fully discharged state. 第25个充放电周期后完全放电状态的电芯。

Shenzhen CTB Testing Technology Co., Ltd. 深圳市环测威检测技术有限公司

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Test Method and Data

测试方法和数据

Test Requirement 测试要求

Tests T.1 to T.5 shall be conducted in sequence on the same cell or battery. Tests T.6 and T.8 shall be conducted using not otherwise tested cells or batteries. Test T.7 may be conducted using undamaged batteries previously used in tests T.1 to T.5 for purposes of testing on cycled batteries.

Cells and batteries meet this requirement if there is no leakage, no venting, no disassembly, no rupture and no fire and if the open circuit voltage of each test cell or battery after testing is not less than 90% of its voltage immediately prior to this procedure. The requirement relating to voltage is not applicable to test cells and batteries at fully discharged states.

小型电池或电池组必须按顺序进行试验T1至T5。试验T6和T8应使用未试验过的电池或电池组。试验T7可以使用原先在试验T1至T5中使用过的未损坏的电池组进行，以便测试交替充电放电的电池组。

要求电池和电池组无渗漏、无漏气、无解体、无破裂和无起火并且每个电池或电池组在试验后的开路电压不小于其在进行这一试验前电压的90%。有关电压的要求不适用于完全放电状态的电池和电池组。

Table 38.3.1: Mass loss limit 表38.3.1: 质量损失限值	
Mass M of cell or battery 电池或电池组质量M	Mass lost limited 质量损失限值
$M < 1g$	0.5%
$1g \leq M \leq 75g$	0.2%
$M > 75g$	0.1%

In order to quantify the mass loss, the following procedure is provided.

$$\text{mass loss} = (M_1 - M_2) / M_1 \times 100\%$$

Where M_1 is the mass before the test and M_2 is the mass after the test, when mass loss does not exceed the values in Table below, it shall be considered as “no mass loss”.

质量损失依照下式计算：

$$\text{质量损失} = (M_1 - M_2) / M_1 \times 100\%$$

式中 M_1 是试验前的质量， M_2 是试验后的质量。如质量损失不超过下表所列数值，即视为“无质量损失”。

ST/SG/AC.10/11/Rev.8, Subsection 38.3

Clause 章节	Requirements 标准要求	Result 测试结果	Verdict 判定
38.3.4	Procedure/测试步骤		
38.3.4.1	Test T.1: Altitude simulation 高度模拟 Test cells and batteries shall be stored at a pressure of 11.6 kPa or less for at least six hours at ambient temperature ($20 \pm 5^\circ\text{C}$). 试验样品在压力不大于11.6kPa和环境温度$20^\circ\text{C} \pm 5^\circ\text{C}$的环境下存放至少6小时。 Requirement 标准要求: 1)Cells and batteries mass loss limit reference:Table 38.3.1 样品质量损失限值参考: 表38.3.1 2)Open circuit voltage not less than 90% ,this requirement relating to voltage is not applicable to test cells and batteries at full discharged states. 样品试验后开路电压应不低于试验前开路电压的90%, 此要求不适用于完全放完电的电池或电池组。 3)no leakage, no venting, no disassembly, no rupture and no fire. 样品应无漏液、无漏气、无解体、无破裂以及无起火现象的发生。	The samples no leakage, no venting, no disassembly, no rupture and no fire. 样品无漏液、无漏气、无解体、无破裂以及无起火现象。 The data is shown in Table T.1 数据见表 T.1	Pass 合格
38.3.4.2	Test T.2: Thermal test 温度试验 1)For small cells and batteries:one temperature cycle: $72 \pm 2^\circ\text{C}(6\text{h}) \sim -40 \pm 2^\circ\text{C}(6\text{h})$ 对于小型电池和电池组: 一次温度循环为$72 \pm 2^\circ\text{C}(6\text{h}) \sim -40 \pm 2^\circ\text{C}(6\text{h})$ For large cells and batteries:one temperature cycle: $72 \pm 2^\circ\text{C}(12\text{h}) \sim -40 \pm 2^\circ\text{C}(12\text{h})$ 对于大型电池和电池组: 一次温度循环为$72 \pm 2^\circ\text{C}(12\text{h}) \sim -40 \pm 2^\circ\text{C}(12\text{h})$ 2)The maximum time interval between test temperature extremes is 30minutes. 温度转换最大间隔时间为30min. 3)This procedure is to be repeated 10 times. 重复10次循环。 4)after which all test cells and batteries are to be stored for 24 hours at ambient temperature($20 \pm 5^\circ\text{C}$) 循环结束后, 所有样品在环境温度$20^\circ\text{C} \pm 5^\circ\text{C}$下存放24小时。 Requirement 标准要求: 1)Cells and batteries mass loss limit reference:Table 38.3.1 样品质量损失限值参考: 表38.3.1 2)Open circuit voltage not less than 90% ,this requirement relating to voltage is not applicable to test cells and batteries at full discharged states. 样品试验后开路电压应不低于试验前开路电压的90%, 此要求不适用于完全放完电的电池或电池组。 3)no leakage, no venting, no disassembly, no rupture and no fire. 样品应无漏液、无漏气、无解体、无破裂以及无起火现象的发生。	The samples no leakage, no venting, no disassembly, no rupture and no fire. 样品无漏液、无漏气、无解体、无破裂以及无起火现象。 The data is shown in Table T.2 数据见表 T.2	Pass 合格

ST/SG/AC.10/11/Rev.8, Subsection 38.3

Clause 章节	Requirements 标准要求	Result 测试结果	Verdict 判定
38.3.4.3	Test T.3: Vibration 振动 1)Cells and batteries are firmly secured to the platform of the vibration machine. 样品牢固地安装在振动台（的台面）上。 2)The vibration:a sinusoidal waveform with a logarithmic sweep between 7Hz and 200Hz and back to 7Hz traversed in 15 minutes. 振动以正弦波形式，对数扫描频率从7Hz增加至200Hz，然后再回到7Hz，一个循环持续15分钟。 3)The logarithmic frequency sweep is as follows: from 7 Hz a peak acceleration of 1gn is maintained until 18 Hz is reached, The amplitude is then maintained at 0,8mm (1,6 mm total excursion) and the frequency increased until a peak acceleration of 8gn occurs (approximately 50Hz), A peak acceleration of 8gn is then maintained until the frequency is increased to 200 Hz. 对于小电池和小型电池组的对数扫频为:从7 赫兹开始保持1gn 的最大加速度直到频率为18 赫兹，然后将振幅保持在0.8 毫米（总偏移1.6 毫米）并增加频率直到最大加速度达到8gn（频率约为50 赫兹），将最大加速度保持在8gn 直到频率增加到200 赫兹。 The logarithmic frequency sweep is as follows: from 7 Hz a peak acceleration of 1 gn is maintained until 18 Hz is reached, The amplitude is then maintained at 0,8mm (1,6 mm total excursion) and the frequency increased until a peak acceleration of 2gn occurs (approximately 25Hz), A peak acceleration of 2gn is then maintained until the frequency is increased to 200 Hz. 对于大型电池组的对数扫频为:对数扫频为:从7 赫兹开始保持1gn 的最大加速度直到频率为18 赫兹，然后将振幅保持在0.8 毫米（总偏移1.6 毫米）并增加频率直到最大加速度达到2gn（频率约为25赫兹），将最大加速度保持在2gn直到频率增加到200 赫兹。 4)This cycle repeated 12 times for a total of 3 hours for each of three mutually perpendicular mounting position of the cell. One of the directions of vibration must be perpendicular to the terminal face. 以振动的其中一个方向必须是垂直样品极性，对每个样品从三个互相垂直的方向上循环12次，每个方向3小时，共计9小时。		Pass 合格
	Requirement 标准要求: 1)Cells and batteries mass loss limit reference:Table 38.3.1 样品质量损失限值参考：表38.3.1 2)Open circuit voltage not less than 90% ,this requirement relating to voltage is not applicable to test cells and batteries at full discharged states. 样品试验后开路电压应不低于试验前开路电压的90%，此要求不适用于完全放完电的电池或电池组。 3)no leakage, no venting, no disassembly, no rupture and no fire. 样品应无漏液、无漏气、无解体、无破裂以及无起火现象的发生。	The samples no leakage, no venting, no disassembly, no rupture and no fire. 样品无漏液、无漏气、无解体、无破裂以及无起火现象。 The data is shown in Table T.3 数据见表 T.3	

ST/SG/AC.10/11/Rev.8, Subsection 38.3

ST/SG/AC.10/11/Rev.8, Subsection 38.3												
Clause 章节	Requirements 标准要求	Result 测试结果	Verdict 判定									
38.3.4.4	Test T.4: Shock 冲击		Pass 合格									
	1) Test cell and battery shall be secured to the testing machine by means of a rigid mount which will support all mounting surfaces of each test battery. 试验电池和电池组用坚固支架紧固在试验机上，支架支撑着每个试验电池组的所有安装面。											
	2) Each cell or battery shall be subjected to a half sine shock of peak acceleration of 150gn and pulse duration of 6 milliseconds. Alternatively, large cells and large batteries may be subjected to a half-sine shock of peak acceleration of 50gn and pulse duration of 11 milliseconds. 每个电池须经受最大加速度150 gn和脉冲持续时间6毫秒的半正弦波冲击。不过，大型电池须经受最大加速度50 gn和脉冲持续时间11毫秒的半正弦波冲击。											
	3) Each cell or battery shall be subjected to a half-sine shock of peak acceleration depending on the mass of the battery. The pulse duration shall be 6 milliseconds for small batteries and 11 milliseconds for large batteries. The formulas below are provided to calculate the appropriate minimum peak accelerations. 每个电池须经受的正弦波冲击的最大加速度取决于电池组的质量。小型电池组的脉冲持续时间6毫秒，大型电池组的脉冲持续时间11毫秒。以下公式用于计算合适的最低限度最大加速度。											
	<table><tr><th>Battery</th><th>Minimum peak acceleration</th><th>Pulse duration</th></tr><tr><td>Small batteries</td><td>150 gn or result of formula Acceleration(g_n) = √(100850 / mass*) whichever is smaller</td><td>6 ms</td></tr><tr><td>Large batteries</td><td>50 gn or result of formula Acceleration(g_n) = √(30000 / mass*) whichever is smaller</td><td>11 ms</td></tr></table>	Battery	Minimum peak acceleration	Pulse duration	Small batteries	150 gn or result of formula Acceleration(g _n) = √(100850 / mass*) whichever is smaller	6 ms	Large batteries	50 gn or result of formula Acceleration(g _n) = √(30000 / mass*) whichever is smaller	11 ms		
Battery	Minimum peak acceleration	Pulse duration										
Small batteries	150 gn or result of formula Acceleration(g _n) = √(100850 / mass*) whichever is smaller	6 ms										
Large batteries	50 gn or result of formula Acceleration(g _n) = √(30000 / mass*) whichever is smaller	11 ms										
	4)Each cell or battery shall be subjected to three shocks in the positive direction and to three shocks in the negative direction in each of three mutually perpendicular mounting positions of the cell or battery for a total of 18 shocks. 每个电池或电池组须在三个互相垂直的电池或电池组安装方位的正方向经受三次冲击，接着在反方向经受三次冲击，总共经受18次冲击。											
	Requirement 标准要求: 1)Cells and batteries mass loss limit reference:Table 38.3.1 样品质量损失限值参考：表38.3.1 2)Open circuit voltage not less than 90% ,this requirement relating to voltage is not applicable to test cells and batteries at full discharged states. 样品试验后开路电压应不低于试验前开路电压的90%，此要求不适用于完全放完电的电池或电池组。 3)no leakage, no venting, no disassembly, no rupture and no fire. 样品应无漏液、无漏气、无解体、无破裂以及无起火现象的发生。	The samples no leakage, no venting, no disassembly, no rupture and no fire. 无漏液、无漏气、无解体、无破裂以及无起火现象。 The data is shown in Table T.4 数据见表 T.4										

ST/SG/AC.10/11/Rev.8, Subsection 38.3

Clause 章节	Requirements 标准要求	Result 测试结果	Verdict 判定
38.3.4.5	Test T.5: External short circuit 外短路测试 1) The cell or battery to be tested shall be heated for a period of time necessary to reach a homogeneous stabilized temperature $57\pm4\text{ }^{\circ}\text{C}$. 加热电池或电池组样品直到温度稳定在$57\pm4\text{ }^{\circ}\text{C}$。 2) The cell or battery shall be subjected to a short circuit condition with a total external resistance of less than 0.1 ohm at $57\pm4\text{ }^{\circ}\text{C}$, This short circuit condition is continued for at least one hour after the cell or battery external case temperature has returned to $57\pm4\text{ }^{\circ}\text{C}$. 将样品正负极用小于0.1Q 的总电阻回路进行短路, 样品的外表温度恢复到$57\pm4\text{ }^{\circ}\text{C}$之后保持短路状态1小时以上。 3) The cell or battery must be observed for a further six hours for the test to be concluded. 电池或电池组必须进一步观察6个小时才能下结论。 Requirement 标准要求: 1) Cells and batteries meet this requirement if their external temperature does not exceed $170\text{ }^{\circ}\text{C}$ 要求样品外表面温度不超过$170\text{ }^{\circ}\text{C}$, 2) no disassembly, no rupture and no fire during the test and within six hours after the test. 测试中与测试后6 小时内无解体, 无破裂, 无起火。	The samples no disassembly, no rupture and no fire. 样品无解体, 无破裂, 无起火。 The data is shown in Table T.5数据见表 T.5	Pass 合格
38.3.4.6	Test T.6: Impact / Crush 撞击/挤压 Impact (applicable to cylindrical cells not less than 18 mm in diameter) 撞击(适用于直径不小于18 毫米的圆柱形电池) The sample cell or component cell is to be placed on a flat smooth surface. A 15.8 mm $\pm$ 0.1mm diameter, at least 6 cm long, or the longest dimension of the cell, whichever is greater, Type 316 stainless steel bar is to be placed across the Centre of the sample. A 9.1 kg $\pm$ 0.1 kg mass is to be dropped from a height of 61 $\pm$ 2.5 cm at the intersection of the bar and sample in a controlled manner using a near frictionless, vertical sliding track or channel with minimal drag on the falling mass. The vertical track or channel used to guide the falling mass shall be oriented 90 degrees from the horizontal supporting surface. The test sample is to be impacted with its longitudinal axis parallel to the flat surface and perpendicular to the longitudinal axis of the 15.8 mm $\pm$ 0.1mm diameter curved surface lying across the Centre of the test sample. Each sample is to be subjected to only a single impact. 将试验样品放在平坦光滑平面上, 将一根长度不少于7cm的316型不锈钢棒横放在试样中心后, 将一质量为9.1kg 的物体从$61\pm2.5\text{cm}$ 的高度落向样品。待测试电池纵轴与平面平行, 与横放在试样中心的直径15.8 ± 0.1 毫米弯曲表面的纵轴垂直。每个样品只经受一次撞击。		Pass 合格
	Crush (applicable to prismatic, pouch, coin/button cells and cylindrical cells less than 18 mm in diameter) 挤压(适用于棱柱形、袋装、硬币/ 纽扣电池和直径小于18 毫米的圆柱形电池)		N/A 不适用
	A cell or component cell is to be crushed between two flat surfaces. The crushing is to be gradual with a speed of approximately 1.5 cm/s at the first point of contact. The crushing is to be continued until the first of the three options below is reached.		N/A 不适用

ST/SG/AC.10/11/Rev.8, Subsection 38.3

Clause 章节	Requirements 标准要求	Result 测试结果	Verdict 判定
	(a) The applied force reaches 13 KN $\pm$ 0.78 KN; (b) The voltage of the cell drops by at least 100 mV; (c) The cell is deformed by 50% or more of its original thickness. Once the maximum pressure has been obtained, the voltage drops by 100 mV or more, or the cell is deformed by at least 50% of its original thickness, the pressure shall be released. A prismatic or pouch cell shall be crushed by applying the force to the widest side. A button/coin cell shall be crushed by applying the force on its flat surfaces. For cylindrical cells, the crush force shall be applied perpendicular to the longitudinal axis. 将样品放在两个平面之间挤压, 挤压力度逐渐加大, 在第一个接触点上的速度大约为1.5厘米/秒。挤压持续进行, 直到出现以下三种情况之一: (a) 施加的力量达到13KN$\pm$ 0.78KN; (b) 样品的电压下降至少100毫伏; (c) 样品变形达原始厚度的50%或以上。 一旦获得最大压力, 电压下降100mv或以上, 或电池变形至少50%的原始厚度, 应释放压力。棱柱形或袋装样品应从最宽的一面施压, 纽扣/硬币形样品应从其平坦表面施压, 圆柱形样品应从与纵轴垂直的方向施压。每个样品只经受一次挤压。		
	Requirement 标准要求: 1) Cells and batteries meet this requirement if their external temperature does not exceed 170 °C 要求样品外表面温度不超过170°C, 2) no disassembly, no rupture and no fire during the test and within six hours after the test. 测试中与测试后6 小时内无解体, 无破裂, 无起火。	The samples no disassembly, no rupture and no fire during the test and within six hours after the test. 样品无解体, 无破裂, 无起火。 The data is shown in Table T.6 数据见表 T.6	Pass 合格
38.3.4.7	Test T.7: Overcharge 过度充电 The charge current shall be twice the manufacturer's recommended maximum continuous charge current. The minimum voltage of the test shall be as follows: (a) when the manufacturer's recommended charge voltage is not more than 18V, the minimum voltage of the test shall be the lesser of two times the maximum charge voltage of the battery or 22V. (b) when the manufacturer's recommended charge voltage is more than 18V, the minimum voltage of the test shall be 1.2 times the maximum charge voltage. Tests are to be conducted at ambient temperature. The duration of the test shall be 24 hours. 以2倍制造厂推荐的最大持续充电电流对样品充电, 本测试最小电压为: (a) 如果厂家推荐的充电电压不超过18V, 本测试的最小充电电压应该是厂家标定最大充电电压的两倍或者22V之中的较小者。 (b) 如果厂家推荐的充电电压超过18V, 本测试的最小充电电压应该1.2倍的厂家标定最大充电电压。		Pass 合格
	Requirement 标准要求:	The samples no	

ST/SG/AC.10/11/Rev.8, Subsection 38.3

Clause 章节	Requirements 标准要求	Result 测试结果	Verdict 判定
	Rechargeable batteries meet this requirement if there is no disassembly and no fire during the test and within seven days after the test. 要求样品在试验中和试验后7 天内无解体和无起火。	disassembly and no fire /样品无解体, 无起火.The data is shown in Table T.7 数据见表T.7	

38.3.4.8	Test T.8: Forced discharge 强制放电		
	Each cell shall be forced discharged at ambient temperature by connecting it in series with a 12V D.C. power supply at an initial current equal to the maximum discharge current specified by the manufacturer. The specified discharge current is to be obtained by connecting a resistive load of the appropriate size and rating in series with the test cell. Each cell shall be forced discharged for a time interval (in hours) equal to its rated capacity divided by the initial test current (in ampere). 每个电池应在环境温度下通过串联12V直流电源强制放电，初始电流等于制造商规定的最大放电电流。 通过将适当尺寸和额定值的电阻负载串联在测试电池上，可获得指定的放电电流。每个电池强制放电的时间(单位:小时)等于其额定容量除以初始测试电流(单位:安培)。		Pass 合格
	Requirement 标准要求: Primary or rechargeable cells meet this requirement if there is no disassembly and no fire during the test and within seven days after the test./要求样品在试验中和试验后7 天内无解体和无起火。	The samples no disassembly and no fire /样品无解体, 无起火.The data is shown in Table T.8 数据见表T.8	

Test Data 测试数据

Table T.1 Altitude simulation (表T.1) 高度模拟

No. 编号	Before test测试前		After test测试后		Mass loss 质量损失 (%)	Voltage loss 电压损失 (%)	Verdict# (判定#)
	Mass(g) 质量(g)	Voltage(V) 电压(V)	Mass(g) 质量(g)	Voltage(V) 电压(V)			
B01	1797.82	28.58	1797.72	28.57	0.01	0.03	PASS/合格
B02	1798.98	28.59	1798.98	28.59	0.00	0.00	PASS/合格
B03	1800.00	28.56	1800.00	28.56	0.00	0.00	PASS/合格
B04	1796.55	28.61	1796.55	28.61	0.00	0.00	PASS/合格
B05	1799.47	28.57	1799.47	28.57	0.00	0.00	PASS/合格
B06	1797.45	28.62	1797.45	28.62	0.00	0.00	PASS/合格
B07	1798.64	28.59	1798.53	28.57	0.01	0.07	PASS/合格
B08	1796.72	28.57	1796.72	28.57	0.00	0.00	PASS/合格
#: After the test, there is No leakage, No venting, No disassembly, No rupture and no fire. And change ratio is not less than 90%. #: 检测后, 样品无漏液、无漏气、无解体、无破裂以及无起火现象。电压比不小于90%。							

Table T.2 Thermal test (表T.2) 温度试验

No. 编号	Before test测试前		After test测试后		Mass loss 质量损失 (%)	Voltage loss 电压损失 (%)	Verdict# (判定#)
	Mass(g) 质量(g)	Voltage(V) 电压(V)	Mass(g) 质量(g)	Voltage(V) 电压(V)			
B01	1797.72	28.57	1797.13	28.29	0.03	0.98	PASS/合格
B02	1798.98	28.59	1798.26	28.34	0.04	0.87	PASS/合格
B03	1800.00	28.56	1799.43	28.32	0.03	0.84	PASS/合格
B04	1796.55	28.61	1796.04	28.33	0.03	0.98	PASS/合格
B05	1799.47	28.57	1798.88	28.34	0.03	0.81	PASS/合格
B06	1797.45	28.62	1796.82	28.35	0.04	0.94	PASS/合格
B07	1798.53	28.57	1797.96	28.32	0.03	0.88	PASS/合格
B08	1796.72	28.57	1796.06	28.31	0.04	0.91	PASS/合格
#: After the test, there is No leakage, No venting, No disassembly, No rupture and no fire. And change ratio is not less than 90%. #: 检测后, 样品无漏液、无漏气、无解体、无破裂以及无起火现象。电压比不小于90%。							

Table T.3 Vibration (表T.3) 振动

No. 编号	Before test测试前		After test测试后		Mass loss 质量损失 (%)	Voltage loss 电压损失 (%)	Verdict# (判定#)
	Mass(g) 质量(g)	Voltage(V) 电压(V)	Mass(g) 质量(g)	Voltage(V) 电压(V)			
B01	1797.13	28.29	1797.13	28.29	0.00	0.00	PASS/合格
B02	1798.26	28.34	1798.26	28.32	0.00	0.07	PASS/合格
B03	1799.43	28.32	1799.43	28.32	0.00	0.00	PASS/合格
B04	1796.04	28.33	1796.04	28.33	0.00	0.00	PASS/合格
B05	1798.88	28.34	1798.77	28.33	0.01	0.04	PASS/合格
B06	1796.82	28.35	1796.82	28.33	0.00	0.07	PASS/合格
B07	1797.96	28.32	1797.82	28.32	0.01	0.00	PASS/合格
B08	1796.06	28.31	1796.06	28.31	0.00	0.00	PASS/合格

#: After the test, there is No leakage, No venting, No disassembly No rupture and no fire. And change ratio is not less than 90%.

#: 检测后, 样品无漏液、无漏气、无解体、无破裂以及无起火现象。电压比不小于90%。

Table T.4 Shock (表T.4) 冲击

No. 编号	Before test测试前		After test测试后		Mass loss 质量损失 (%)	Voltage loss 电压损失 (%)	Verdict# (判定#)
	Mass(g) 质量(g)	Voltage(V) 电压(V)	Mass(g) 质量(g)	Voltage(V) 电压(V)			
B01	1797.13	28.29	1797.13	28.29	0.00	0.00	PASS/合格
B02	1798.26	28.32	1798.15	28.30	0.01	0.07	PASS/合格
B03	1799.43	28.32	1799.43	28.32	0.00	0.00	PASS/合格
B04	1796.04	28.33	1796.04	28.33	0.00	0.00	PASS/合格
B05	1798.77	28.33	1798.77	28.33	0.00	0.00	PASS/合格
B06	1796.82	28.33	1796.82	28.32	0.00	0.04	PASS/合格
B07	1797.82	28.32	1797.64	28.32	0.01	0.00	PASS/合格
B08	1796.06	28.31	1796.06	28.31	0.00	0.00	PASS/合格

#: After the test, there is No leakage, No venting, No disassembly No rupture and no fire. And change ratio is not less than 90%.

#: 检测后, 样品无漏液、无漏气、无解体、无破裂以及无起火现象。电压比不小于90%。

Table T.5 External short circuit (表T.5) 外部短路

No. 编号	Peak temperature(°C) 最高温度	Verdict 判定
B01	57.7	PASS/合格
B02	58.1	PASS/合格
B03	57.5	PASS/合格
B04	58.1	PASS/合格
B05	58.4	PASS/合格
B06	57.8	PASS/合格
B07	58.0	PASS/合格
B08	58.2	PASS/合格
#: Test sample external temperature does not exceed 170°C and there is no disassembly, no rupture and no fire during the test and within six hours after the test. #: 检测样品表面温度不超过170°C, 检测中与检测后6小时内无解体、无破裂以及无起火现象。		

Table T.6 Crush/Impact (表T.6) 挤压/撞击

No. 编号	Peak temperature(°C) 最高温度	Verdict 判定
C01	103.3	PASS/合格
C02	112.5	PASS/合格
C03	118.0	PASS/合格
C04	99.9	PASS/合格
C05	103.6	PASS/合格
C06	112.2	PASS/合格
C07	105.7	PASS/合格
C08	100.0	PASS/合格
C09	120.0	PASS/合格
C10	116.4	PASS/合格
#: Test sample external temperature does not exceed 170°C and there is no disassembly, no rupture and no fire during the test and within six hours after the test. #: 检测样品表面温度不超过170°C, 检测中与检测后6小时内无解体、无破裂以及无起火现象。		

Table T.7 Overcharge (表T.7) 过充电测试

No. 编号	Verdict 判定
B09	PASS/合格
B10	PASS/合格
B11	PASS/合格
B12	PASS/合格
B13	PASS/合格
B14	PASS/合格
B15	PASS/合格
B16	PASS/合格
#: There is no disassembly and no fire during the test and within seven days after the test. #: 样品在检测中与检测后7天内无解体及无起火现象。	

Table T.8 Forced discharge (表T.8) 强制放电

No. 编号	Verdict 判定
C11	PASS/合格
C12	PASS/合格
C13	PASS/合格
C14	PASS/合格
C15	PASS/合格
C16	PASS/合格
C17	PASS/合格
C18	PASS/合格
C19	PASS/合格
C20	PASS/合格
C21	PASS/合格
C22	PASS/合格
C23	PASS/合格
C24	PASS/合格
C25	PASS/合格
C26	PASS/合格
C27	PASS/合格
C28	PASS/合格
C29	PASS/合格
C30	PASS/合格
#: There is no disassembly and no fire during the test and within seven days after the test. #: 样品在检测中与检测后7天内无解体及无起火现象。	

Photo of Sample

样品照片



Figure 1



Figure 2

Photo of Sample

样品照片



Figure 3



Figure 4

Photo of Sample

样品照片

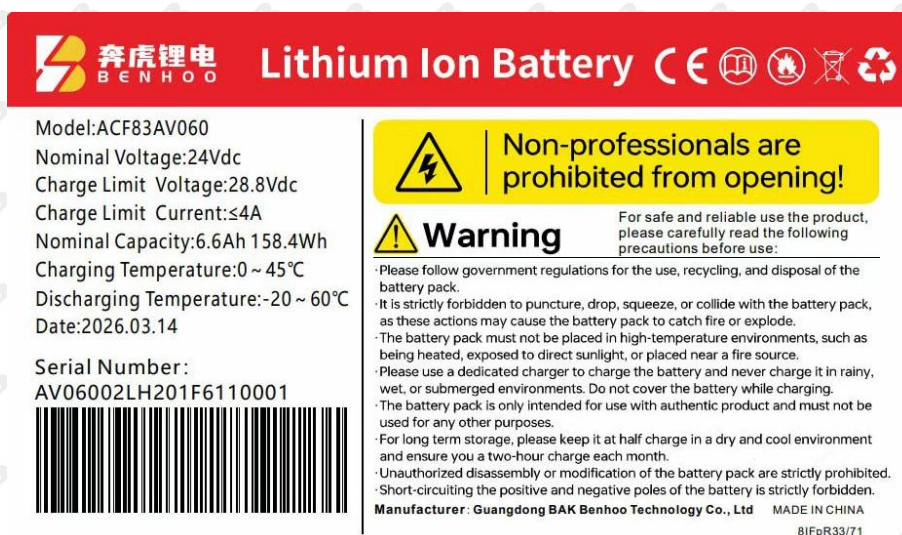


Figure 5

Important Notice

注意事项

1. The test report is invalid without the official stamp of CTB.

本报告书无CTB盖章无效。

2. The test report is invalid without the signatures of Ratifier, Reviewer and Testing engineer.

本报告书无批准人、审核人、及主检人签名无效。

3. Nobody is allowed to partly photocopy this test report without written permission of CTB.

未经CTB书面同意，不得部分地复制本报告书。

4. The report is invalid when anything of following happens – illegal transfer, reproduce, embezzlement, imposture, modification or tampering in any media form.

私自转让、复制、盗用、冒用、涂改、或以任何媒体形式篡改的报告书无效。

5. Product information and customer information provided by the applicant, we are not responsible for its authenticity.

产品信息和客户信息由申请人提供，我们不对其真实性负责。

6. The test report is valid for the tested samples only.

本报告仅对本次测试样品有效。

7. The Chinese contents in this report are only for reference.

本报告中的中文内容仅供参考。

8. Objections to the test report must be submitted to CTB within 15 days.

对报告书若有异议，应于收到报告之日起15天内向CTB提出。

报告结束



Page 1 of 9

Report No.: CTB26061510001D02

M S D S

MATERIAL SAFETY DATA SHEET

化学品安全技术说明书

Name of sample : Lithium Ion Battery (24V 6.6Ah 158.4Wh)
样品名称 : 锂离子电池 (24V 6.6Ah 158.4Wh)

Battery Model : ACF83AV060
型号 :

Applicant : Zhejiang Paiseec Robot Technology Co., Ltd.
申请商 : 浙江派斯科机器人科技有限公司

Address : 3-4/F, Building 12, No. 460 Xishan Road, Dongcheng Street, Yongkang
地址 : City, Jinhua City, Zhejiang Province, China
浙江省金华市永康市东城街道锡山路460号12号楼3-4楼

Effective Date : 2026.07.15
生效日期 :

Report Number : CTB26061510001D02
报告编号 :

Written by:

编写:

梁梅梅

Approved by:

批准:



Shenzhen CTB Testing Technology Co., Ltd.

深圳市环测威检测技术有限公司

Shenzhen CTB Testing Technology Co., Ltd. 深圳市环测威检测技术有限公司

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MATERIAL SAFETY DATA SHEET

化学品安全技术说明书

Section 1- Identification of the Substance/Preparation and of the Company/Undertaking

第一部分 物质及企业标识

Name of Sample 样品名称	Lithium Ion Battery (24V 6.6Ah 158.4Wh) 锂离子电池 (24V 6.6Ah 158.4Wh)		
Model 型号	ACF83AV060		
Size 尺寸	191.93*168.94*49.12(mm)		
Weight 重量	1800.00g		
Factory 生产单位	Guangdong BAK Benhoo Technology Co., Ltd. 广东比克奔虎新能源科技有限公司		
Factory' s Address 生产地址	Floor 3, Building A, Industrial Park, No. 55 Zengkeng Road, Zengkeng Team, Xintang Village, Qiuchang Sub-district, Huiyang District, Huizhou City 惠州市惠阳区秋长街道新塘村增坑小组增坑路55号工业园A栋3楼		
24h Emergency Phone No. 24h 紧急联络电话	15772237032		
E-mail 邮箱	jswy@baknp.com		
Receiving Date 收样日期	2026.06.25	Completing Date 完成日期	2026.06.26

Section 2- Hazards Identification

第二部分 危险性概述

Classification of Danger 危险性类别	See section 14. 见第十四部分。
Primary Route(s) of Exposure 浸入途径	Eye, skin contact, ingestion. 眼睛, 皮肤接触, 摄入。
Health Hazard 健康危害	The batteries are not hazardous when used according to the instructions of manufacturer under normal conditions. In case of abuse, there' s Hazard of rupture, fire, heat, leakage of internal components, which could cause casualty loss. Abuses including but not limited to the following cases: charged for long time, short circuited, put into fire, whacked with hard object, punctured with acute object, crushed, and broken. 正常条件下根据制造商的说明使用电池不会产生危害。使用不当的情况下, 有破裂、起火、发烫、内部成分泄漏的危险, 并可能造成意外损失。使用不当的行为包括但不限于下列情况: 长时间充电、短路、投入火中、硬物撞击、尖物刺破、破碎, 和破裂。

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Section 3- Composition/Information on Ingredients**第三部分 成分/组成信息**

Chemical Name 化学名称	Concentration or concentration ranges (%) 浓度或浓度范围(%)	CAS Number CAS 号(化学文摘索引登记号)
LiFePO4 磷酸锂铁	28	15365-14-7
LiPF6 六氟磷酸锂	17	21324-40-3
Aluminum 铝	9	7429-90-5
Graphite 石墨	10	7782-42-5
Copper 铜	12.5	7440-50-8
Nickel 镍	0.5	7440-02-0
Iron 铁	23	7439-89-6

Labeling according to EC directives.

标签根据 EC 指令。

No symbol and Hazard phrase are required.

不需要象形符号和危险短语。

Note: CAS number is Chemical Abstract Service Registry Number.

注意: CAS 号是化学文摘服务注册号码。

N/A=Not apply.

N / A =不适用。

Section 4- First Aid Measures**第四部分 急救措施**

Eye contact 眼睛	Flush eyes with plenty of water for least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. 万一接触, 立即用大量的清水冲洗至少15分钟, 翻起上下眼睑, 直到化学的残留物消失为止, 迅速就医。
Skin contact 皮肤	Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid. 万一接触, 用大量水冲洗至少15分钟, 同时除去污染的衣物和鞋子, 迅速就医。
Inhalation 吸入	Remove from exposure and move to fresh air immediately. Use oxygen if available. 立即从暴露处移至空气清新处, 如果呼吸困难给予输氧, 立即就医。
Ingestion 食入	Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.如果当事人仍然清醒可以采取催吐的方法, 并且立即就医。

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Section 5- Fire Fighting Measures

第五部分 消防措施

Characteristics of Hazard 危险特性	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. 该产品会导致眼睛, 皮肤和粘膜灼伤。热分解可能导致释放刺激性气体和蒸汽。
Hazardous Combustion Products 燃烧产生的危险物品	Carbon dioxide. 二氧化碳。
Fire-extinguishing Methods and Extinguishing Media 灭火方法及灭火剂	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. 使用适合当地情况和周围环境的灭火措施。
Attention in Fire-extinguishing 灭火注意事项	Wear self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. 因为压强关系, 要穿戴可呼吸式全身防护装备, MSHA/NIOSH (经认证或等效的), 以及佩戴全套防护装置。

Section 6- Accidental Release Measures

第六部分 泄露应急处理

Personal Precautions, protective equipment, and emergency procedures 个人预防措施、防护装备和应急程序	In case of rupture. Attention! Corrosive material. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Refer to protective measures listed in Sections 7 and 8. 万一破裂。注意！腐蚀性物质。避免接触皮肤, 眼睛或衣服。确保空气流通。根据需要使用个人防护装备。将人员撤离到安全区域。让人们远离溢出/泄漏处和处于逆风。参考第七部分和第八部分中列出的防护措施。
Environmental Precautions 环境保护措施	Prevent product from contaminating soil and from entering sewers or waterways. 防止产品污染土壤和进入下水道或水道。
Methods and materials for Containment 方法和材料控制	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately. 出于安全, 阻止泄漏, 可以用干砂或泥土来遏制液体溢出, 立即清理溢出物。
Methods and materials for cleaning up 清理的方法和材料	Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal. 用惰性吸收剂(干砂或泥土)吸收溢出的材料。污染物转移到可接受的废物容器中。收集所有受污染的吸收剂, 按照第十三部分的说明进行处理。用洗涤剂和清水清洁污染区域, 收集所有受污染的洗涤水, 妥善处理。

Section 7- Handling and Storage

第七部分 操作处置与储存

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Handling 操作	The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity. 拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。禁止短路或将电池正负极错误的安装在设备中。
Storage 储存	Store in a cool, dry, well-ventilated area away from incompatible substances. Store locked up. Keep out of the reach of children. 储藏于阴凉，干燥，通风处，远离接触会发生反应的材料。存储锁定。放在儿童无法接触的地方。
Other Precautions 其他要注意的防范措施	In case of rupture. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection equipment. 万一破裂。按照良好的工业卫生和安全规范进行操作。避免接触皮肤，眼睛或衣服。使用个人防护设备。

Section 8- Exposure Controls/Personal Protection

第八部分 接触控制和个体防护

Engineering Controls 工程控制	Use adequate ventilation to keep airborne concentrations low. If used under conditions that generate particulates, the ACGIH TLV-TWA of 3mg/m ³ respirable fraction (10mg/m ³ total) should be observed. 保证空气流通使空气密度保持在低水平。如果在会生成微粒的情况下使用，应仔细观察 3mg/m ³ ACGIH TLV-TWA 3 的吸入量（总量为 10mg/m ³ ）。
Personal Protective Equipment 个人防护设备	Eye and Face Protection: None required for consumer use. If there is a Hazard of contact: Tight sealing safety goggles. Face protection shield. 眼睛和脸部保护：消费者无需使用。如果有接触危险：密封安全护目镜。面部防护罩。 Skin and Body Protection: None required for consumer use. If there is a Hazard of contact: Wear protective gloves and protective clothing. 皮肤和身体防护：消费者无需使用。如果有接触危险：穿戴防护手套和防护服。 Respiratory Protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 呼吸系统防护：正常使用条件下不需要防护设备。如果超过暴露限值或发生刺激，可能需要通风和疏散。

Section 9- Physical and Chemical Properties

第九部分 理化特性

Physical State 物理状态	Appearance: Almost Cuboid 外形：近长方体
	Color: Black 颜色：黑色

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	Odour: If leaking, smells of medical ether. 气味: 泄漏时, 医用乙醚的气味。
Change in condition: 变化的条件:	
pH 酸碱度	Not applicable as supplied. 不适用。
Flash Point 闪点	Not applicable unless individual components exposed. 除非单个的组件暴露, 否则不适用。
Flammability 易燃度	Not applicable unless individual components exposed. 除非单个的组件暴露, 否则不适用。
Relative density: 相对密度	Not applicable unless individual components exposed. 除非单个的组件暴露, 否则不适用。
Solubility (water) 溶解性 (水溶性)	Not applicable unless individual components exposed. 除非单个的组件暴露, 否则不适用。
Solubility (other) 溶解性 (其他)	Not applicable unless individual components exposed. 除非单个的组件暴露, 否则不适用。
Section 10- Stability and Reactivity 第十部分 稳定性和反应性	
Chemical Stability 化学稳定性	Stable under recommended storage conditions. 在推荐的储存条件下可以保持稳定。
Possibility of Hazardous Reactions 危险反应的可能性	None under normal processing. 正常处理下没有。
Conditions to Avoid 应避免的条件	Exposure to air or moisture over prolonged periods. 暴露在空气中或长时间受潮。
Incompatible materials 不相容材料	Acids, Oxidizing agents, Bases. 酸, 氧化剂, 碱。
Hazardous Decomposition Products 有危害分解物	Carbon oxides. 二氧化碳。
Section 11- Toxicological Information 第十一部分 毒理学信息	
Irritation 刺激	In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin. 内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。
Sensitization 致敏	Not Available. 不适用。
Reproductive Toxicity	Not Available.

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再生毒性	不适用。
Toxicologically Synergistic Materials 协同材料毒理学	Not Available. 不适用。
Section 12- Ecological Information 第十二部分 生态学信息	
General note 通用信息	Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. 不允许未稀释或大量的产品接触地下水、水道或污水处理系统。
Anticipated behavior of a chemical product in environment/possible environmental impact/ ecotoxicity 化学产品在环境/可能的环境预期的行为的一种生态毒性	Not Available. 不适用。
Section 13- Disposal Considerations 第十三部分 废弃处置	
Waste Treatment 废弃处置方法	Recycle or dispose of in accordance with government, state & local regulations. 建议遵照国家和地方法规处置或再利用。
Attention for Waste Treatment 废弃注意事项	Deserted batteries shouldn't be treated as ordinary trash. Shouldn't be thrown into fire or placed in high temperature. Shouldn't be dissected, pierced, crushed or treated similarly. Best disposal method is recycling. 废电池不能被当作普通垃圾。不能扔进火中或置于高温下。不能解体，刺穿，破碎或类似的处理。最好的处理办法是回收利用。
Section 14- Transport Information 第十四部分 运输信息	
UN number 联合国货物编号 (UN 编号)	UN3480 & UN3481 & UN3556
Proper shipping name 运输专用名称	Vehicle, lithium ion battery powered, Lithium Ion Batteries(Including Lithium Polymer Batteries), Lithium Ion Battery Packed With Equipment 锂离子电池驱动车辆，或锂离子电池(包括锂聚合物电池)，或锂离子电池与设备包装在一起
Label(s) / Placard Required 标签/标牌要求	Lithium Battery or Sodium Ion Battery Class 9 Label, or Cargo Aircraft only 锂电池和钠离子电池第九类危险品标签，或仅限货机标签
Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.	

无论是对内还是对外的运输或运输方式，用户都需要注意或遵守的特殊预防措施。	
ICAO / IATA: 国际民间航空组织/国际航空运输协会：	Can be shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions (PI) 965 Section IA, PI 966 Section I and PI 967 Section I, 952 appropriate of IATA DGR 67 th for transportation. 货物可根据民用航空组织（ICAO），TI 或国际航空运输协会（IATA），DGR 67 th 包装说明(PI)965 Section IA 或 966~967 第 I 节或 952 相关规定进行空运。
IMDG CODE: 国际海运危险货物规则：	Shipping may be done in accordance with the 188 or 360 of IMDG CODE (Amdt. 42-24) 2024. 可根据 IMDG CODE (Amdt. 42-24) 2024 版特殊规定 188 或 360 的相关规定进行海运。
DOT: 美国运输部：	Other requirements for the US Department of Transportation (DOT) Subchapter C, Hazardous Materials Regulations if shipped in compliance with 49 CFR 173.185. 美国运输部(DOT)有害物质规则 C 分章中的其他规定，运输符合要求 49 CFR 173.185。
ADR/ ADN: 欧洲国际陆运危险货物协定/关于内陆水道国际运输危险货物的欧洲协定：	Transport Requirements for United Nations Economic Commission for Europe (UNECE) ADR/ADN, Applicable as from 1 January 2025. 自 2025 年 1 月 1 日起需符合联合国欧洲经济委员会（UNECE）ADR / ADN 的运输要求。
In addition, to be permitted in transport each lithium cell and battery types must have passed the applicable tests set out in Subsection 38.3 of the UN Manual of Tests and Criteria. The batteries should be well protected against short circuits. 此外，每个锂电芯和电池类型都必须通过联合国《关于危险货物运输的建议书 试验和标准手册》第 38.3 节规定的适用测试。电池应做好防短路措施。	
Section 15- Regulatory Information 第十五部分 法规信息	
Dangerous Goods Regulations 《危险物品规则》 Recommendations on the Transport of Dangerous Goods-Model Regulations (23 rd revised edition) 联合国《关于危险货物运输的建议书 规章范本》（23 rd 修订版） Recommendations on the Transport of Dangerous Goods-Manual of Tests and Criteria 联合国《关于危险货物运输的建议书 试验和标准手册》 International Air Transport Association (IATA) 《国际航空运输协会》（IATA） International Maritime Dangerous Goods IMDG CODE(Amdt 42-24) 《国际海运危险货物规则》IMDG CODE(Amdt 42-24) Technical Instructions for the Safe Transport of Dangerous Goods 《危险货物安全运输技术指南》 Classification and code of dangerous goods (GB 6944-2025) 《危险货物分类和品名编号》- GB 6944-2025 2024 OSHA Hazard Communication Standard (29 CFR 1910.1200)	

2024《职业安全与健康标准》危险通信标准（29 CFR 1910.1200）

Toxic Substance Control Act (TSCA)

《有毒物质控制法》（TSCA）

Code of Federal Regulations

《联邦条例》

In accordance with all Federal, State and local laws

符合所有联邦、州和地方法律

Section 16- Additional Information

第十六部分 其他信息

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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