

**WE'RE NOT JUST CREATING  
REMOTE CONTROLS,  
WE'RE CREATING  
A SAFER WORKPLACE**

---

**Battery 3.7V 3.4Ah Li-Ion**



## Battery 3.7V 3.4Ah Li-Ion SPECIFICATIONS

|                                                          |                                                                                                                            |                            |                                                                                                                                                                       |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HOUSING</b>                                           | <ul style="list-style-type: none"> <li>Impact Resistant Polymer</li> </ul>                                                 | <b>EXTINGUISHING AGENT</b> | <ul style="list-style-type: none"> <li>Water, CO<sub>2</sub></li> </ul>                                                                                               |
| <b>DIMENSIONS</b>                                        | <ul style="list-style-type: none"> <li>H: 79.5mm x W: 25.4mm x D: 28.6mm</li> <li>H: 3.13" x W: 1.0" x D: 1.13"</li> </ul> | <b>CAUTION</b>             | <ul style="list-style-type: none"> <li>Do not short circuit</li> <li>Do not crush</li> <li>Do not heat or incinerate</li> <li>Do not immerse in any liquid</li> </ul> |
| <b>WEIGHT</b>                                            | <ul style="list-style-type: none"> <li>Max. 70g (0.15 lbs.)</li> </ul>                                                     | <b>RECYCLE</b>             | <ul style="list-style-type: none"> <li>To be recycled and disposed properly</li> </ul>                                                                                |
| <b>ENVIRONMENTAL PROTECTION</b>                          | <ul style="list-style-type: none"> <li>Min IP 65</li> </ul>                                                                |                            |                                                                                                                                                                       |
| <b>DISCHARGING TEMPERATURE/<br/>CHARGING TEMPERATURE</b> | <ul style="list-style-type: none"> <li>-20C to +60C (-4F to +140F)</li> <li>0C to +45C (32F to +113F)</li> </ul>           |                            |                                                                                                                                                                       |
| <b>BATTERY RATING/TYPE</b>                               | <ul style="list-style-type: none"> <li>3.7V 3.4Ah Li-Ion rechargeable IEC62133 certified battery pack</li> </ul>           |                            |                                                                                                                                                                       |
| <b>HUMIDITY RANGE</b>                                    | <ul style="list-style-type: none"> <li>0 to 97% max. non-condensing</li> </ul>                                             |                            |                                                                                                                                                                       |
|                                                          |                                                                                                                            |                            |                                                                                                                                                                       |
|                                                          |                                                                                                                            |                            |                                                                                                                                                                       |

hetronic.com

### ABOUT HETRONIC

Since 1982 Hetronic has delivered the finest, most reliable industrial Safety Radio Remote Control user interface solutions for process and equipment control applications in the industry. We have shipped over 500,000 safe and reliable transmitter/ receiver solutions to customers around the world. Our global network of service locations, in over 50 countries, provides expert service, support and sales when customers need safe, secure and reliable remote control solutions. Contact a Hetronic expert and learn more at [www.hetronic.com](http://www.hetronic.com)



# BATTERY SAFETY & HANDLING

To ensure proper use of the battery and prevent hazards, please read this manual carefully before handling.

**CRM data:** Cu(9.8%), LiCoO<sub>2</sub> (39.6%), F<sub>6</sub>LiP (15.35%)

**Extinguishing agent:** Water, CO<sub>2</sub>

## 1. Cautions in Use

- Do not expose the battery to direct sunlight or dispose of it in fire.
- Do not put the battery in a charger or equipment with wrong terminals connected.
- Use only the cable and connector included in the battery, do not modify
- Avoid short-circuiting the battery.
- The battery is for exclusive use with the Flaem product according to the product manual
- Avoid excessive physical shock or vibration.
- Do not crush.
- Do not heat or incinerate.
- Do not disassemble or deform the battery.
- Do not immerse in water.
- Do not use the battery mixed with other different make, type, or model batteries.
- Keep out of the reach of children.

## 2. Charge and Discharge

- Battery must be charged in appropriate charger only.
- Never use a modified or damaged charger.
- Do not leave battery in charger over 24 hours.

## 3. Storage

- Store the battery in a cool, dry and well-ventilated area.

## 4. Disposal

- Regulations vary for different countries. Dispose of in accordance with local regulations.

# 材料安全数据表

## **Material Safety Data Sheet**

产 品 名 称: 锂离子电池

**Name of Products:** Lithium ion Battery

委 托 单 位: Hetronic Malta (A Division of Methode

**Applicant:** Electronics Malta Ltd.)

# TEST REPORT

Report No.: CS10003799 03011

Page 2 of 15

## 1. Identification of the product and supplier (产品和厂商信息)

|                                   |                                                                                |
|-----------------------------------|--------------------------------------------------------------------------------|
| 样品名称<br>Name of goods             | 锂离子电池<br>Lithium ion Battery                                                   |
| 样品型号<br>Type/Model                | 68303701                                                                       |
| 规格<br>Rating                      | 3.7V, 3.5Ah, 13Wh                                                              |
| 委托单位<br>Commissioned by           | Hetronic Malta (A Division of Methode Electronics Malta Ltd.)                  |
| 委托单位地址<br>Commissioner address    | Triq I-Awdituri, Zone 4, Central Business District, Birkirkara CBD 4070, Malta |
| 生产厂<br>Manufacturer's name        | Confidential                                                                   |
| 生产厂地址<br>Manufacturer address     | Confidential                                                                   |
| 鉴定依据<br>Inspection according to   | 联合国《关于危险品货物运输的建议书》<br>UN "Recommendations on the TRANSPORT OF DANGEROUS GOODS" |
| 接样日期 / Receiving date: 2025-03-05 |                                                                                |
| 签发日期 / Date of issue: 2025-04-22  |                                                                                |

## 2. Composition Information (成分/组成信息)

| 化学成分<br>Chemical Composition       | 化学式<br>Chemical Formula         | 重量百分比<br>Weight(%) | CAS 编号<br>CAS Number |
|------------------------------------|---------------------------------|--------------------|----------------------|
| 钴酸锂/ Lithium Cobalt Oxide          | LiCoO <sub>2</sub>              | 39.6               | 12190-79-3           |
| 石墨/ Graphite                       | C <sub>24</sub> X <sub>12</sub> | 23.2               | 7782-42-5            |
| 六氟磷酸锂/ Lithium Hexafluorophosphate | LiPF <sub>6</sub>               | 15.35              | 21324-40-3           |

# TEST REPORT

Report No.: CS10003799 03011

Page 3 of 15

## 3. Hazards Identification (危险性概述)

|                           |                                                                                                                                                |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 爆炸危险性<br>Explosive risk   | 该物品不属于爆炸危险品<br>This article does not belong to the explosion dangerous goods                                                                   |
| 易燃危险性<br>Flammable risk   | 该物品不属于易燃危险品<br>This article does not belong to the flammable material                                                                          |
| 氧化危险性<br>Oxidation risk   | 该物品不属于氧化危险品<br>This article does not belong to the oxidation of dangerous goods                                                                |
| 毒害危险性<br>Toxic risk       | 该物品不属于毒害危险品<br>This article does not belong to the toxic dangerous goods                                                                       |
| 放射危险性<br>Radioactive risk | 该物品不属于放射危险品<br>This article does not belong to the radiation of dangerous goods                                                                |
| 腐蚀危险性<br>Mordant risk     | 该物品不属于腐蚀危险品<br>This article does not belong to the corrosion of dangerous goods                                                                |
| 其他危险性<br>Other risk       | 该电池瓦时率为 13Wh, 属于锂离子电池 (包括锂离子聚合物电池)<br>Watt hour rate 13Wh, which belong to the Lithium ion batteries (including lithium ion polymer batteries) |

## 4. First aid measures (急救措施)

眼睛: 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.

### Eye

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

皮肤: 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

。

### Skin

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

### Inhalation

Remove from exposure and move to fresh air immediately. Use oxygen if available. 食入: 饮用两杯牛奶或水。如果当事人仍然清醒可以采取催吐的方法, 并且立即就医

。

### Ingestion

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

# TEST REPORT

Report No.: CS10003799 03011

Page 4 of 15

## 5. Fire-fighting measures (消防措施)

燃点: 不适用

**Flash Point:** N/A. 自燃温度: 不适用

**Auto-Ignition Temperature:** N/A.

灭火介质: 大量水(降温), 二氧化碳

**Extinguishing Media:** Water, CO2.

特殊灭火程序: 自给式呼吸器

**Special Fire-Fighting Procedures:** Self-contained breathing apparatus. 异常火灾或爆炸: 当电芯暴露于过热的环境中时, 安全阀可能会打开。

**Unusual Fire and Explosion Hazards:**

Cell may vent when subjected to excessive heat-exposing battery contents. 燃烧产生的危险物品: 一氧化碳, 二氧化碳, 锂氧化物烟气

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

## 6. Accidental release measures (泄漏应急处理)

为防止电池材料泄露或释放采取的措施如果电池内部材料泄露, 试验人员应立刻撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区, 清除溢出的液体, 将泄露电池放进塑料袋中, 然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

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

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

废弃物处置方法建议将电池完全放电, 将废弃的电池统一上交于相关部门, 所有废弃物必须参照联合国, 国家, 地方性法规进行处置。参照国家环保局或联邦 EPA。

### Waste Disposal Method

It is recommended to discharge the battery to the end, handing in the abandoned batteries to related department unified, dispose of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental protection agency and/or federal EPA.

# TEST REPORT

Report No.: CS10003799 03011

Page 5 of 15

## 7. Handling and storage (操作处置和储存)

禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container.

Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire.

Do not crush or puncture the battery, or immerse in liquids.

操作处置和储存中的防范措施禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风及温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

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

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

其他要注意的防范措施拆解、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。禁止短接或将电池正负极错误的安装在设备中。

### **Other Precautions**

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.

# TEST REPORT

Report No.: CS10003799 03011

Page 6 of 15

## 8. Exposure controls/personal protection (接触控制/个人防护)

呼吸防护当电池排气阀打开时，应尽量使通风设备开至最大，避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下，呼吸保护是不必要的。

### **Respiratory Protection**

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use. 通风条件正常使用条件下不需要。

### **Ventilation**

Not necessary under conditions of normal use. 防护手套正常使用条件下不需要

。

### **Protective Gloves**

Not necessary under conditions of normal use.

其他防护服或设备正常使用条件下不需要

。

### **Other Protective Clothing or Equipment**

Not necessary under conditions of normal use. 电池开阀试验时应做好个人防护呼吸防护，防护手套，防护服装和有护边的安全玻璃罩都是要准备的。

### **Personal Protection is recommended for venting battery**

Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

# TEST REPORT

Report No.: CS10003799 03011

Page 9 of 15

## 12. Ecological information (生态学资料)

对哺乳动物的影响：目前未知。

**Mammalian effects:** None known at present. 生态毒性：目前未知。

**Eco-toxicity:** None known at present. 生物体内积累：慢慢地生物降解。

**Bioaccumulation potential:** Slowly Bio-degradable. 环境危害：目前没有已知的环境危害。

**Environmental fate:** None known environmental hazards at present.

## 13. Disposal consideration (废弃处置)

不要焚烧，或使电池温度超过 70°C，这种滥用可导致泄漏和/或电池爆炸。按照相应的地方性法规处理。

Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

## 14. Transport information (运输信息)

运输标签：锂电池操作标签。

**Label for conveyance:** Lithium Battery Mark.

**UN 编号:** UN3480 或 UN3481

**UN Number:** UN3480 or

UN3481 包装等级：不适用

**Packing Group:** N/A.

**EmS 编号:** F-A, S-I

**EmS No:** F-A, S-I 海洋污染物：

无

**Marine pollutant:** No

在其场地内外进行运输或传送时，用户需要了解或需要遵守的特殊预防措施：无其它信息。

**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:** No further information.

正确的装运名称：1) 锂离子电池; 2) 锂离子电池伴随设备包装在一起; 3) 锂离子电池装在设备中（包括锂离子聚合物电池）

**Proper Shipping name:** 1) Lithium ion batteries; 2) Lithium ion batteries packed with equipment; 3) Lithium ion batteries contained in equipment. (including Lithium ion polymer batteries)

危险分类：货物应遵守 IATA 第 66 版 DGR 手册包装说明 965~967 第 II（或者 IB 节）规定(2025 年版)，和特殊规定 188 海运危险货物规则(Amdt. 42-24) 2024 版，包括通过 UN38.3 测试手册要求。

## EU DECLARATION OF CONFORMITY

**Issuer:**

Hetronic Malta,  
A Division of Methode Electronics Malta Ltd.  
Triq I-Awdituri, Zone 4,  
Central Business District,  
Birkirkara CBD 4070  
Malta

**Object of Declaration:** Lithium-ion Battery Pack 3.7V 3450mAh

This declaration of conformity is issued under the sole responsibility of the manufacturer.

The object of the declaration described above is in conformity with the following Union legislation:

- Regulation (EU) 2023/1542 of the European Parliament and of the Council concerning batteries and waste batteries.

The conformity assessment is supported by the following technical documentation:

- UN Manual of Tests and Criteria, Part III, Sub-section 38.3 (UN 38.3)
- Supplier technical documentation
- Product technical specification

Birkirkara, Malta, July 28, 2026



Stefan Svensson

Global Engineering Manager, Hetronic



# 锂电池/钠离子电池 UN38.3 试验概要 Test Summary

项目编号: PEKSZ202504241817

| 单位信息 Company Information                                |                                                                                                      |                                                                                                                                                                                                                                |                                             |                                        |            |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------|------------|
| 委托单位<br>Consignor                                       |                                                                                                      | Hetronic Malta (A Division of Methode Electronics Malta Ltd.)<br>Triq I-Awdituri, Zone 4, Central Business District, Birkirkara CBD 4070, Malta                                                                                |                                             |                                        |            |
| 生产单位<br>Manufacturer                                    |                                                                                                      | Confidential                                                                                                                                                                                                                   |                                             |                                        |            |
| 测试单位<br>Test Lab                                        |                                                                                                      | 广东华认检测科技有限公司 / Guangdong CRT Co., Ltd.<br>广东省东莞市寮步镇福来路 45 号 3 栋 / Building 3, 45 Fulai Road, Liaobu Town, Dongguan City, Guangdong, China.<br>电话/Tel: 400-8167-268 邮箱/Mail: crt@gdcrt.com<br>网址/Website: http:// www.gdcrt.com |                                             |                                        |            |
| 电池信息 Battery Information                                |                                                                                                      |                                                                                                                                                                                                                                |                                             |                                        |            |
| 名称<br>Name                                              | 锂离子电池<br>Lithium ion Battery                                                                         | 电池/电芯类别<br>Battery/Cell Classification                                                                                                                                                                                         |                                             | 单电芯锂离子电池<br>Single Cell Li-ion Battery |            |
| 型号<br>Type                                              | 68303701                                                                                             | 商标<br>Trademark                                                                                                                                                                                                                |                                             | /                                      |            |
| 额定电压<br>Normal Voltage                                  | 3.7V                                                                                                 | 额定容量<br>Rated Capacity                                                                                                                                                                                                         |                                             | 3.5Ah                                  |            |
| 额定能量<br>Watt-hour rating                                | 13Wh                                                                                                 | 外观/Appearance                                                                                                                                                                                                                  |                                             | 黑色近长方体<br>Black almost cuboid          |            |
| 质量/Mass                                                 | 67.39g                                                                                               | 锂含量/Li Content                                                                                                                                                                                                                 |                                             | 不适用 N/A                                |            |
| 测试信息 Test Information                                   |                                                                                                      |                                                                                                                                                                                                                                |                                             |                                        |            |
| 测试报告编号<br>Test Report Number                            | CS10003799 03001                                                                                     |                                                                                                                                                                                                                                | 测试报告签发日期<br>Date of Test Report             | 2025-04-22                             |            |
| 测试标准<br>Edition of UN Manual of Tests and Criteria Used | 联合国《试验和标准手册》(第 8 版) 38.3 节<br>UN "Manual of Tests and Criteria" ST/SG/AC.10/11/Rev.8/Subsection 38.3 |                                                                                                                                                                                                                                |                                             |                                        |            |
| T.1: 高度模拟<br>Altitude Simulation                        | 通过<br>Pass                                                                                           | T.2: 温度试验<br>Thermal Test                                                                                                                                                                                                      | 通过<br>Pass                                  | T.3: 振动<br>Vibration                   | 通过<br>Pass |
| T.4: 冲击<br>Shock                                        | 通过<br>Pass                                                                                           | T.5: 外部短路<br>External Short Circuit                                                                                                                                                                                            | 通过<br>Pass                                  | T.6: 撞击/挤压<br>Impact/Crush             | 通过<br>Pass |
| T.7: 过度充电<br>Overcharge                                 | 通过<br>Pass                                                                                           | T.8: 强制放电<br>Forced Discharge                                                                                                                                                                                                  | 通过<br>Pass                                  | /                                      |            |
| UN38.3.3.1(f)或/<br>UN38.3.3.2(d)                        | 不适用 N/A                                                                                              |                                                                                                                                                                                                                                | UN38.3.3.1(g)或/<br>UN38.3.3.2(e)<br>不适用 N/A |                                        |            |
| 签名<br>Signatory<br>职务<br>Title                          | 王阳<br>检验员                                                                                            |                                                                                                                                                                                                                                | 签发日期<br>Issued Date                         | 2025.04.24<br>06<br>DGM-CHINA          |            |

测试报告编号: NA