

MSDS Report

Applicant Name: 申请商:	Zaoyang Yinuo New Energy Co., Ltd 枣阳市一诺新能源有限公司 422 Sisha Road, Huancheng City, Zaoyang City, Hubei Province, China 湖北省枣阳市环城寺沙路 422 号
Product Name: 产品名称:	Li-ion Cell 锂离子电芯
Model 型号:	401012
Nominal Voltage: 标称电压:	3.7V
Typical Capacity: 典型容量:	30mAh, 0.111Wh
Weight 重量:	0.74g
Dimension 尺寸:	10.0mm X 10.0mm X 4.0mm (LxWxT)
Prepared By 编制单位	Shenzhen NCT Testing Technology Co., Ltd. 深圳诺测检测技术有限公司 B2A101/B2A201/B2A202, Fuqiao 6th Area, Xintian, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China 广东省深圳市宝安区福海街道新田社区富桥六区 B2A101, B2A201, B2A202
Report No. 报告编号	NCT24049103XM1-1

Written by 编写: Allen Fu **Approved by 批准人:** Boris Lin
 Allen Fu Boris Lin
Inspected by 审核人: Miya Li **Report Unit (Seal)** Seal of NCT
 Miya Li **Effective Date 生效日期:** 2025.01.01



Material Safety Data Sheet

化学品安全技术说明书

Section 1- Chemical Product & Company Identification

第一部分 化学品及企业标识

Product Name: Li-ion Cell

产品名称: 锂离子电芯

Manufacture: Zaoyang Yinuo New Energy Co., Ltd

制造商: 枣阳市一诺新能源有限公司

Address: 422 Sisha Road, Huancheng City, Zaoyang City, Hubei Province, China

地址: 湖北省枣阳市环城寺沙路 422 号

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Item Code 项目号: NCT24049103XM1-1

Section 2- Hazards Identification

第二部分 危险性概述

Classification according to GHS GHS 分类	Not a dangerous substance according to GHS 不属于 GHS 危险物品
Hazard Description 危险性描述	Not dangerous with normal use. Do not dismantle, open or shred the battery ingredients contained within or their ingredients products could be harmful. 正常使用没有危险, 不能拆解、打开或分解电池, 里面的材料或成分是有危害的。
Primary Route(s) of Exposure	Inhalation, Ingestion, Skin contact and Eye contact. 吸入、食入、皮肤接触、眼睛接触。

接触途径	
Health Hazard 健康危害	<p>In case of abuse, there's Hazard of rupture, fire, heat, leakage of internal components</p> <p>使用不当的情况下,有破裂、起火、发烫、内部成分泄漏的危险。</p> <p>Contact with the electrolyte of battery may be irritating to skin, eyes and mucous tissue. Combustion may produce irritating, corrosive and/or toxic gases. Fumes may cause dizziness or suffocation.</p> <p>电池的电解质会刺激皮肤、眼睛和黏膜组织。燃烧可能产生刺激性、腐蚀性和/或毒性气体。烟雾可能导致头晕或窒息。</p>

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)
Lithium Cobalt Oxide 钴酸锂	35	12190-79-3
Graphite 石墨	22	7782-42-5
Copper 铜	10	7440-50-8
Aluminum 铝	5	7429-90-5
Ethylene carbonate 碳酸乙烯酯	14	96-49-1
Polypropylene 聚丙烯	5	9003-07-0
Carbonate, methyl ethyl 碳酸甲乙酯	4	623-53-0
Phosphate(1-), hexafluoro-, lithium 六氟磷酸锂	5	21324-40-3

Note: CAS number is Chemical Abstract Service Registry Number.

注意: CAS 号是化学文摘服务注册号。

N/A=Not apply.

N/A =不适用。

Section 4- First Aid Measures

第四部分 急救措施

Inhalation 吸入	<p>If the internal materials of battery are inhaled, remove from scene immediately to fresh air. If breathing is difficult, give oxygen and seek medical attention immediately.</p> <p>若吸入电池内的物质,立即脱离现场至空气新鲜处,如果呼吸困难给予输氧,立即就医。</p>
Ingestion	Do not induce vomiting if the internal materials of battery are swallowed

食入	and seek medical attention immediately. 若食入电池内的物质，禁止催吐，立即就医。
Skin contact 皮肤接触	If in contact with the internal materials of battery, remove the contaminated clothing, shoes and socks, immediately flush with plenty of water for more than 20 minutes, seek medical attention immediately. 若接触到电池内的物质，脱下已污染衣服和鞋袜，用流动的水冲洗 20 分钟以上，立即就医。
Eye contact 眼睛接触	If in contact with the internal materials of battery, turn up the upper and lower eyelids, rinse with running water for more than 20 minutes, seek medical attention immediately 若接触到电池内的物质，翻起上下眼睑，用流动水冲洗 20 分钟以上，立即就医

Section 5- Fire Fighting Measures

第五部分 消防措施

Characteristics of Hazard 危险特性	Fumes may cause dizziness or suffocation. 燃烧可能产生刺激性、腐蚀性和/或毒性气体。烟雾可能导致头晕或窒息。
Hazardous Combustion Products 燃烧产生的危险物品	Carbon monoxide, carbon dioxide, lithium oxide fumes and so on. 一氧化碳，二氧化碳，锂氧化物烟气等。
Fire-extinguishing Methods and Extinguishing Media 灭火方法及灭火剂	Please use water, dry sand and other proper fire extinguishing media. 请使用水，干燥沙等合适的灭火介质。
Attention in Fire-extinguishing 灭火注意事项	The firemen should put on antigas masks and full fire-fighting suits. 消防人员须佩戴防毒面具、穿全身消防服。

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	Restrict access to area until completion of clean-up. Do not touch the spilled material. Wear adequate personal protective equipment as indicated in Section 8. 限制区域，直到完成清理工作。请勿触摸泄漏的材料。穿戴适当的个人防护设备，如第 8 部分所示。
Environmental Precautions 环境保护措施	Prevent material from contaminating soil and from entering sewers or waterways. 防止物质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，可以用干砂或沙土来遏制液体泄露，立即清理泄漏。

<p>Methods and materials for cleaning up 清理的方法和材料</p>	<p>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(干砂或沙土)吸收溢出的材料。污染物转移到可吸收废物的容器。收集所有受污染的吸收剂和根据第13部分的指令处置。用洗涤剂和水清洁污染区域,收集所有受污染的洗涤水进行适当处置。</p>
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Section 7- Handling and Storage

第七部分 操作处置与储存

<p>Handling 操作</p>	<p>Don't handling the batteries in manner that allows terminals to short circuit. Do not open, disassemble, crush or burn battery. 不要以让接头短路的方式对电池进行操作。不要打开, 分解, 挤压或燃烧电池。 Operators should be trained and strictly follow the operating procedures. 操作人员应经过培训, 严格遵守操作规程。</p>
<p>Storage 储存</p>	<p>Store in a cool, ventilated, dry warehouse. Keep away from fire, heat and heat. Keep strong oxidants, inflammables and corrosive products separately. Must be firmly in the inner packaging to effectively prevent short circuits and prevent movement that can cause short circuits. The storage area is equipped with the corresponding varieties and quantities of fire equipment, leakage emergency treatment equipment and appropriate containment materials. 储存于阴凉, 通风, 干燥的库房内。远离火种, 热源, 避免高温。应于强氧化剂, 易燃物和腐蚀品分开存放。必须牢固在内包装中, 以有效防止短路和防止可导致短路的移动。存储区配备相应品种和数量的消防器材, 泄露应急处理设备和合适的收容材料。 Keep out of reach of children. 储存在小孩接触不到的地方。</p>
<p>Other Precautions 其他要注意的防范措施</p>	<p>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。禁止短接或将电池正负极错误的安装在设备中。</p>

Section 8 - Exposure Controls/Personal Protection

第八部分 接触控制和个体防护

<p>Engineering Controls 工程控制</p>	<p>Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place. 设计局部排气通风或其它设计来控制粉尘、雾、烟雾和气体。</p>
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Personal Protective Equipment 个人防护设备	<p>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. Not necessary under conditions of normal use.</p> <p>呼吸保护：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。正常使用条件下不必考虑。</p> <p>Protective Gloves: Not necessary under conditions of normal use.</p> <p>防护手套：正常使用条件下不必考虑。</p> <p>Other Protective Clothing or Equipment: Not necessary under conditions of normal use.</p> <p>其他防护服装或设备：正常使用条件下不必考虑。</p> <p>Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.</p> <p>当电池排气阀打开时，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。</p>
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Section 9- Physical and Chemical Properties

第九部分 理化特性

Physical State 物理状态	Form: Solid 形态：固体
	Color: Silver 颜色：银色
	Odour: Odorless 气味：无气味
Change in condition 变化条件：	
pH, with indication of the concentration pH, 有浓度指示	No data is available 无数据可提供
Melting point/freezing point 熔点/凝固点	No data is available 无数据可提供
Boiling Point, initial boiling point 沸点, 初沸点	No data is available 无数据可提供
Flash Point 闪点	No data is available 无数据可提供
Upper/lower flammability or explosive limits 上/下燃烧或爆炸限值	No data is available 无数据可提供
Vapor Pressure 蒸汽压	No data is available 无数据可提供

Vapor Density: (Air = 1) 蒸汽密度: (空气= 1)	No data is available 无数据可提供
Density/relative density 密度/相对密度	No data is available 无数据可提供
Solubility in Water 水溶性	No data is available 无数据可提供
n-octanol/water partition coefficient 正辛醇/水分配系数	No data is available 无数据可提供
Auto-ignition temperature 自燃温度	No data is available 无数据可提供
Decomposition temperature 分解温度	No data is available 无数据可提供
Odour threshold 嗅阈	No data is available 无数据可提供
Evaporation rate 蒸发速率	No data is available 无数据可提供
Flammability (soil, gas) 易燃性 (土壤, 气体)	No data is available 无数据可提供
Viscosity 粘度	No data is available 无数据可提供

Section 10 – Stability and Reactivity

第十部分 稳定性和反应性

Stability 稳定性	Stable under normal temperatures and pressures. 常温常压下稳定。
Conditions to Avoid 应避免的条件	Avoid misoperation, open flame, high temperature, mechanical abuse, overcharge, prevent short circuit and prevent movement that can cause short circuit. 避免误操作, 明火, 高温, 机械滥用, 过充电, 防止短路和防止可导致短路的移动。
Hazardous Decomposition Products 危害分解物	Carbon monoxide, carbon dioxide, lithium oxide fumes. 一氧化碳、二氧化碳、氧化锂烟雾。
Incompatible material 不相容材料	Strong oxidizing agent, flammable and corrosive. 强氧化剂, 易燃性和腐蚀性。
Possibility of Hazardous Reaction 危险反应的可能性	No data is available 无数据可提供

Section 11 – Toxicological Information

第十一部分 毒理学信息

Acute toxicity 急性毒性	No data is available 无数据可提供
Irritation 刺激	In the event of exposure to internal contents, vapor 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产生刺激性。
Sensitization 致敏	No data is available 无数据可提供
Reproductive Toxicity 再生毒性	No data is available 无数据可提供
Toxicologically Synergistic Materials 协同材料毒理学	No data is available 无数据可提供

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到达地下水、水道或污水系统。
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	No data is available 无数据可提供
Mobility in soil 土壤中移动性	No data is available 无数据可提供
Persistence and Degradability 持久性和降解性	No data is available 无数据可提供

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.
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	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 couldn't be treated as ordinary trash. Couldn't be thrown into fire or placed in high temperature. Couldn't be dissected, pierced, crushed or treated similarly. Best way is recycling. 废电池不能被当做普通垃圾。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。最好的办法是回收利用。

Section 14 – Transport Information

第十四部分 运输信息

Transport 运输	Tested according to the requirements of the UNITED NATIONS "Manual of Tests and Criteria" Part III, subsection 38.3 经过测试符合联合国《试验和标准手册》第三部分，第 38.3 章节的要求。
UN Number UN 编号	UN3480 or UN3481 UN3480 或 UN3481
UN Proper shipping name 联合国运输专用名称	Lithium ion batteries or Lithium ion batteries packed with equipment or Lithium ion batteries contained in equipment. 锂离子电池，锂离子电池与设备包装在一起或锂离子电池内置于设备中。
Transport hazard class(es) 运输风险类别	Class 9 (PI 965 Section IB) or N/A(PI 966~PI 967 Section II) 9 类危险品(包装说明 965 第 IB 部分)或者 不适用(包装说明 966~967 第 II 部分)
Packing group 包装等级	N/A 不适用
IATA DGR(66th Edition)	The product can be shipped by air in according to Section IB of PACKING INSTRUCTION 965 or Section II of PACKING INSTRUCTION 966~967 of the 2025 IATA Dangerous Goods Regulations 66 th Edition. 本物品可根据 2025 年 IATA 危险品规则第 66 版包装说明 965 第 IB 部分或包装说明 966~967 第 II 部分空运运输。
ADR(2025 Edition)	The product is not subject to the other provision of ADR(2025 Edition) according to Special Provision 188 本物品根据 ADR 2025 版特殊规定 188, 运输时不受本规则其他规定限制。
RID(2025 Edition)	The product is not subject to the other provision of RID(2025 Edition) according to Special Provision 188 本物品根据 RID 2025 版特殊规定 188, 运输时不受本规则其他规定限制。
IMO IMDG CODE (2024 Edition)	The product is not subject to the other provision of IMO IMDG CODE 2024 Edition(Amdt 42-24) according to Special Provision 188 本物品根据 IMO IMDG CODE 2024 版(Amdt 42-24)特殊规定 188, 运输时不受本规则其他规定限制。
IMDG EmS No.: IMDG EmS 编号:	F-A, S-I
Marine pollutant 海洋污染物	No 不属于
Can be shipped without being declared as Class 9 dangerous goods, when Maritime, Road, Railway meet to Special Provision 188.	

当海运，道路，铁路满足特殊规定 188，不需要申报成 9 类危险品装运。

Section 15 – Regulatory Information

第十五部分 法规信息

Dangerous Goods Regulations

《危险品规则》

Recommendations on the Transport of Dangerous Goods, Model Regulations

联合国《关于危险货物运输的建议书 规章范本》

International Maritime Dangerous Goods

《国际海运危险货物规则》

Technical Instructions for the Safe Transport of Dangerous Goods By Air(TI)

《危险物品安全航空运输技术细则》(技术细则)

European Agreement concerning the International Carriage of Dangerous Goods by Road(ADR)

《国际危险货物道路运输欧洲协定》

Regulations concerning the International Carriage of Dangerous Goods by Rail(RID)

《国际铁路运输危险货物规则》(RID)

List of Railway Dangerous Goods (TB/T 30006-2022)

《铁路危险物品名表》(TB/T 30006-2022)

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

《危险货物道路运输规则》(JT/T 617-2018)

Classification and code of dangerous goods

《危险货物分类和品名编号》

Occupational Safety and Health Act(OSHA)

《职业安全与健康法》(OSHA)

Toxic Substance Control Act(TSCA)

《有毒物质控制法》(TSCA)

Resource Conservation and Recovery Act(RCRA)

《资源保护和恢复法案》(RCRA)

Code of Federal Regulations(CFR) 49 CFR sections 100-185, 49 CFR -173.185

《联邦条例》(CFR) 49 CFR sections 100-185, 49 CFR -173.185

New EU Battery Regulations (EU) 2023/1542

欧盟新电池法规(EU) 2023/1542

Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

关于化学品的注册、评估、授权和限制(EC)第 1907/2006 号规例

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**

The information in this MSDS has only been compiled based on the information in the relevant materials currently in our possession and is intended only to describe the health, safety and environmental requirements of this product so that all interested parties can better understand and trust this product. However, we makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. This material safety data sheet provides guidelines for the safe handling and use of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export controlled information.

本份 MSDS 中的信息只是基于我们当前所拥有的相关材料的信息而编制的,只是为了描述本品的健康、安全与环境需求,以使各有关方面能更好地了解和信任本产品。但是,对于这些信息,我们不对商品的性能做任何明示的或者暗示的保证,我们也不对使用这些信息造成的后果担负任何责任。用户应当自己调查研究后决定这些信息是否适用于他们的特定用途。尽管在该文档里提出了合理的预警,但是这仅仅只是给您做参考,考量和调查。这份化学品安全技术说明书提供了安全处理和使用该产品的指南,但是它没有,也不能对所有可能发生的情景提出建议,所以您需要根据您对该产品的特定使用情况来决定是否需要其他的预防措施。

此处所包含的数据/信息作为普通版本已经审核并批准,但是本文档不包含出口控制信息。

*****End of report 报告结束*****

MSDS Report

MSDS 报告

Applicant's Name 委托方名称	Dongguan Huali Lithium Battery Technology Co., Ltd. 东莞市华力锂电科技有限公司
Applicant's Address 委托方地址	Room 302, building 1, No.5, liyuankeng Road, Tangxia Town, Dongguan City, Guangdong Province 广东省东莞市塘厦镇黎园坑路5号1栋302室
Name of Sample 样品名称	Polymer Lithium Battery 聚合物锂电池
Model 型号	602040
Nominal Voltage 标称电压	3.7V
Rated Capacity 额定容量	400mAh, 1.48Wh
Weight 重量	9.2g
Size 尺寸 (L×W×T)	(42.5×20.6×6.1)mm
Prepared By 编制单位	Shenzhen TCT Testing Technology Co., Ltd. 深圳市通测检测技术有限公司 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China 广东省深圳市宝安区福海街道桥头社区稔山工业区振昌胶粘制品厂 2101、2201
Report No. 报告编号	TCT241128M081

Written by 编写: Spring Fu 傅福花

Approved by 批准: Tomsin 冯瑞森

Inspected by 审核: Mollie Wu 吴玲玲

Effective Date 生效日期: 2025.01.01



Material Safety Data Sheet 化学品安全技术说明书**Section 1- Chemical Product & Company Identification****第一部分 化学品及企业标识**

Name of Sample 样品名称	Polymer Lithium Battery 聚合物锂电池
Manufacturer's Name 生产单位名称	Dongguan Huali Lithium Battery Technology Co., Ltd. 东莞市华力锂电科技有限公司
Manufacturer's Address 生产单位地址	Room 302, building 1, No.5, liyuankeng Road, Tangxia Town, Dongguan City, Guangdong Province 广东省东莞市塘厦镇黎园坑路5号1栋302室
Tel 电话	+86-769-82867206
Emergency Tel 应急电话	+86-769-8286736
E-mail 邮箱	2713188604@qq.com

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	<p>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.</p> <p>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。</p>

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)
Lithium Cobalt Oxide 钴酸锂	15-40	12190-79-3
Graphite 石墨	10-30	7782-42-5
Phosphate(1-), hexafluoro-, lithium 六氟磷酸锂	10-30	21324-40-3
Copper 铜	7-13	7440-50-8
Aluminum foil 铝箔	5-10	7429-90-5
Nickel 镍	1-5	7440-02-0

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 眼睛	Flush eyes with plenty of water for at 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 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	Ingesting damaged batteries, do not induce vomiting or give food or drink. Seek medical attention immediately. 食入损坏的电池, 不要催吐且不要再吃下食物或喝饮料, 立刻就医。

Section 5- Fire Fighting Measures

第五部分 消防措施

<p>Characteristics of Hazard 危险特性</p>	<p>Dusts at sufficient concentrations can form explosive mixtures with air. Combustion generates toxic fumes. 高密度粉尘遇空气会形成爆炸性混合物。燃烧生成有毒烟雾。</p>
<p>Hazardous Combustion Products 燃烧产生的危险物品</p>	<p>Carbon dioxide. 二氧化碳。</p>
<p>Fire-extinguishing Methods and Extinguishing Media 灭火方法及灭火剂</p>	<p>For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. 对于小型火险, 可使用水枪, 干冰 (也就是液态二氧化碳) 或化学泡沫。</p>
<p>Attention in Fire-extinguishing 灭火注意事项</p>	<p>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。</p>

Section 6- Accidental Release Measures

第六部分 泄露应急处理

<p>Personal Precautions, protective equipment, and emergency procedures 个人预防措施、防护装备和应急程序</p>	<p>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。</p>
<p>Environmental Precautions 环境保护措施</p>	<p>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。</p>
<p>Methods and materials for Containment 方法和材料控制</p>	<p>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。</p>
<p>Methods and materials for cleaning up 清理的方法和材料</p>	<p>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。用洗涤剂和水清洁污染区域, 收集所有受污染的洗涤水, 妥善处理。</p>

Section 7- Handling and Storage

第七部分 操作处置与储存

<p>Handling 操作</p>	<p>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。</p>
<p>Storage 储存</p>	<p>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。</p>
<p>Other Precautions 其他要注意的防范措施</p>	<p>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。</p>

Section 8 - Exposure Controls/Personal Protection

第八部分 接触控制和个体防护

<p>Engineering Controls 工程控制</p>	<p>Use adequate ventilation to keep airborne concentrations low. If used under conditions that generate particulates, the ACGIH TLV-TWA of 3mg/m³ respirable fraction (10mg/m³ 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/m³ ACGIH TLV-TWA 3 的吸入量（总量为 10mg/m³）。</p>
<p>Personal Protective Equipment 个人防护设备</p>	<p>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。</p> <p>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。</p> <p>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。</p>

Section 9- Physical and Chemical Properties

第九部分 理化特性

Physical State 物理状态	Appearance: Prismatic 外形: 棱柱形
	Color: Silver 颜色: 银色
	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

<p><i>Irritation</i> 刺激</p>	<p>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。</p>
<p><i>Sensitization</i> 致敏</p>	<p>Not Available. 不适用。</p>
<p><i>Reproductive Toxicity</i> 再生毒性</p>	<p>Not Available. 不适用。</p>
<p><i>Toxicologically Synergistic Materials</i> 协同材料毒理学</p>	<p>Not Available. 不适用。</p>

Section 12-Ecological Information

第十二部分 生态学信息

<p><i>General note:</i> 通用信息:</p>	<p>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。</p>
<p><i>Anticipated behavior of a chemical product in environment/possible environmental impact/ ecotoxicity</i> 化学产品在环境/可能的环境预期的行为的一种生态毒性</p>	<p>Not Available. 不适用。</p>

Section 13 – Disposal Considerations

第十三部分 废弃处置

<p><i>Waste Treatment</i> 废弃处置方法</p>	<p>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。</p>
<p><i>Attention for Waste Treatment</i> 废弃注意事项</p>	<p>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。</p>

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)	3480 & 3481	
Proper shipping name 运输专用名称	Lithium ion batteries (including lithium ion polymer batteries) or; 锂离子电池 (包括锂离子聚合物电池) 或; Lithium ion batteries packed with equipment (including lithium ion polymer batteries) or; 与设备一起包装的锂离子电池 (包括锂离子聚合物电池) 或; Lithium ion batteries contained in equipments (including lithium ion polymer batteries). 包含在设备中的锂离子电池 (包括锂离子聚合物电池)。	
UN Classification (Transport hazard class): UN 分类(运输危险类别):	IATA	Class 9 (PI965 Section IB) or N/A (PI966~967 Section II) 9 类 (包装说明 965 第 IB 部分) 或者不适用 (包装说明 966~967 第 II 部分)
	IMDG	N/A 不适用
PG Packing Group: PG 包装等级:	N/A 不适用	
Marine pollutant(Y/N): 海洋污染物(Y/N):	N	
IMDG EmS No.: IMDG EmS 编号:	F-A, S-I	
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 Instruction 965 Section IB, 966~967 Section II appropriate of IATA DGR 66 th (2025 Edition) 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 66 th (2025 版) 包装说明 965 Section IB, 966~967 Section II 相关规定进行空运。	
IMDG CODE: 国际海运危险货物规则:	The batteries are not restricted to IMDG Code 2024 Edition (Amdt 42-24) according to special provision 188. 根据特殊规定 188, 该电池不受 IMDG Code 2024 版 (Amdt 42-24) 限制。	
ADR/ RID: 国际道路运输危险货物协定/ 国际铁路运输危险货物规则	The batteries are not restricted to ADR 2025 / RID 2025 according to special provision 188. 根据特殊规定 188, 该电池不受 ADR 2025 / RID 2025 限制。	
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. 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。		

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

联合国《关于危险货物运输的建议书 规章范本》

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

《国际海运危险货物规则》

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

《危险货物分类和品名编号》

OSHA Hazard Communication Standard

《职业安全与健康标准》危险通信标准

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

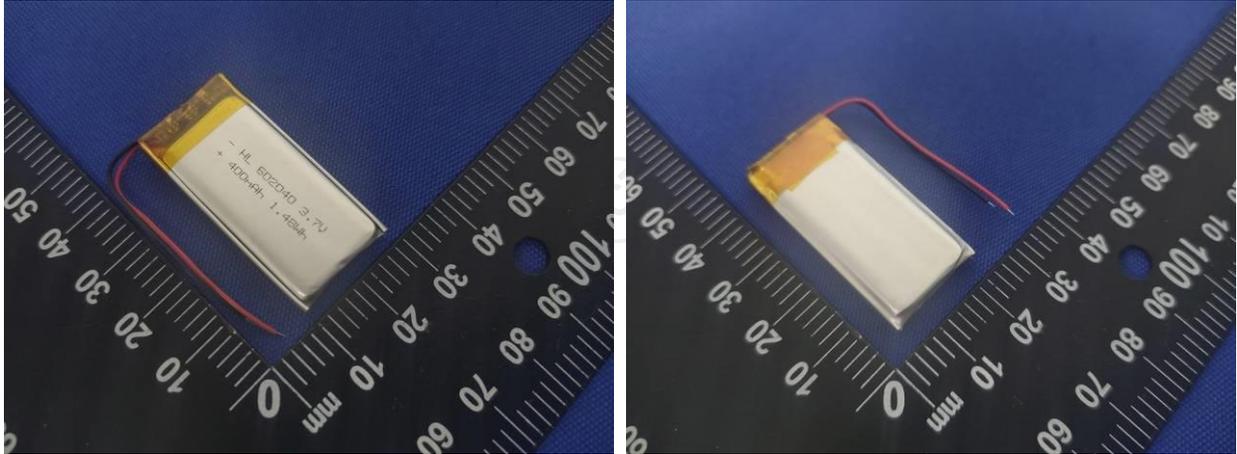
符合所有联邦、州和地方法律

Section 16 – Additional Information

第十六部分 其他信息

MSDS creation date: 2025 Version: 1.0

Sample photo 样品照片:



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