MSDS 报告

MSDS Report

委托方名称 **Applicant's name**	东莞市云帆电子科技有限公司 DONGGUAN ANYFINE ELECTRONIC TECHNOLOGYCO.,LTD
委托方地址 **Applicant's Address**	广东省东莞市清溪镇香芒西路 518 号 1 号楼 Building 1, No. 518 Xiangmang West Ro ad, Qingxi Town, Dongguan City, Guangd ong Province
样品名称 **Name of Sample**	可充电锂离子电池组 Rechargeable lithium ion battery pack
型号 **Model**	C005-13AM
规格参数 **Specification and Ratings**	3.6V 3200mAh 11.52Wh

化学品安全技术说明书 Material Safety Data Sheet

第一部分 化学品及企业标识 Section 1- Chemical Product & Company Identification	
样品名称 Name of Sample	可充电锂离子电池组 Rechargeable lithium ion battery pack
制造商名称 Manufacturer's name	东莞市云帆电子科技有限公司 DONGGUAN ANYFINE ELECTRONIC TECHNOLOGYCO.,LTD
制造商地址 Manufacturer's Address	广东省东莞市清溪镇香芒西路 518 号 1 号楼 Building 1, No. 518 Xiangmang West Ro ad, Qingxi Town, Dongguan City, Guangd ong Province
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第二部分 危险性概述 Section 2- Hazards Identification	
危险性类别 Classification of Danger	见第十四部分。 See section 14.
浸入途径 Primary Route(s) of Exposure	眼睛，皮肤接触，摄入。 Eye, skin contact, ingestion.
健康危害 Health Hazard	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。 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.

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

化学名称 Chemical Name	CAS 号(化学文摘索引登记号) CAS Number	浓度或浓度范围(%) Concentration or concentration ranges (%)
六氟磷酸锂 $LiPF_6$	21324-40-3	3%
碳酸二甲酯 DMC	616-38-6	7%
碳酸甲乙酯 EMC	623-53-0	6 %
碳酸乙烯酯 EC	96-49-1	7%
铜 Cu	7440-50-8	8%
铝 Al	7429-90-5	9%
聚乙烯 Polyethylene	9002-88-4	10%
石墨 Graphite	7782-42-5	15%
钴酸锂 Lithium Cobalt Oxide	12190-79-3	35%

标签根据 EC 指令。
Labeling according to EC directives.
不需要象形符号和危险短语。
No symbol and Hazard phrase are required.
注意: CAS 号是化学文摘服务注册号码。
Note: CAS number is Chemical Abstract Service Registry Number.
N / A =不适用。
N/A=Not apply.

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

眼睛 Eye	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。 Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
皮肤 Skin	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。 Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.
吸入 Inhalation	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。 Remove from exposure and move to fresh air immediately. Use oxygen if available.
食入 Ingestion	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。 Ingesting damaged batteries, do not induce vomiting or give food or drink. Seek medical attention immediately.

第五部分 消防措施 Section 5- Fire Fighting Measures	
危险特性 Characteristics of Hazard	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。 Dusts at sufficient concentrations can form explosive mixtures with air. Combustion generates toxic fumes.
燃烧产生的危险物品 Hazardous Combustion Products	二氧化碳。 Carbon dioxide.
灭火方法及灭火剂 Fire-extinguishing Methods and Extinguishing Media	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。 For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.
灭火注意事项 Attention in Fire-extinguishing	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。 Wear self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

第六部分 泄露应急处理 Section 6- Accidental Release Measures	
个人预防措施、防护装备和应急程序 Personal Precautions, protective equipment, and emergency procedures	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。 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.
环境保护措施 Environmental Precautions	防止产品污染土壤和进入下水道或水道。 Prevent product from contaminating soil and from entering sewers or waterways.
方法和材料控制 Methods and materials for Containment	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。 Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately.
清理的方法和材料 Methods and materials for cleaning up	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。 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.

第七部分 操作处置与储存
Section 7- Handling and Storage

操作 Handling	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。 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.
储存 Storage	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。 Store in a cool, dry, well-ventilated area away from incompatible substances. Store locked up. Keep out of the reach of children.
其他要注意的防范措施 Other Precautions	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。 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.

第八部分 接触控制和个体防护
Section 8 - Exposure Controls/Personal Protection

工程控制 Engineering Controls	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）。 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.
个人防护设备 Personal Protective Equipment	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。 Eye and Face Protection: None required for consumer use. If there is a Hazard of contact: Tight sealing safety goggles. Face protection shield. 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。 Skin and Body Protection: None required for consumer use. If there is a Hazard of contact: Wear protective gloves and protective clothing. 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。 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.

第九部分 理化特性 Section 9- Physical and Chemical Properties	
物理状态 Physical State	外形：圆柱形 Appearance: cylinder-shaped
	颜色：蓝色 Color: blue
	气味：泄漏时，医用乙醚的气味。 Odour: If leaking, smells of medical ether.
变化的条件： Change in condition:	
酸碱度 pH	不适用。 Not applicable as supplied.
闪点 Flash Point	除非单个的组件暴露，否则不适用。 Not applicable unless individual components exposed.
易燃度 Flammability	除非单个的组件暴露，否则不适用。 Not applicable unless individual components exposed.
相对密度 Relative density:	除非单个的组件暴露，否则不适用。 Not applicable unless individual components exposed.
溶解性（水溶性） Solubility (water)	除非单个的组件暴露，否则不适用。 Not applicable unless individual components exposed.
溶解性（其他） Solubility (other)	除非单个的组件暴露，否则不适用。 Not applicable unless individual components exposed.

第十部分 稳定性和反应性 Section 10 – Stability and Reactivity	
化学稳定性 Chemical Stability	在推荐的储存条件下可以保持稳定。 Stable under recommended storage conditions.
危险反应的可能性 Possibility of Hazardous Reactions	正常处理下没有。 None under normal processing.
应避免的条件 Conditions to Avoid	暴露在空气中或长时间受潮。 Exposure to air or moisture over prolonged periods.
不相容材料 Incompatible materials	酸，氧化剂，碱。 Acids, Oxidizing agents, Bases.
有危害分解物 Hazardous Decomposition Products	二氧化碳。 Carbon oxides.

第十一部分 毒理学信息 Section 11 – Toxicological Information	
刺激 Irritation	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。 In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.
致敏 Sensitization	不适用。 Not Available.
再生毒性 Reproductive Toxicity	不适用。 Not Available.
协同材料毒理学 Toxicologically Synergistic Materials	不适用。 Not Available.

第十二部分 生态学信息 Section 12-Ecological Information	
通用信息： General note:	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。 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
化学产品在环境/可能的环境预期的行为的一种生态毒性 Anticipated behavior of a chemical product in environment/possible environmental impact/ ecotoxicity	不适用。 Not Available.

第十三部分 废弃处置 Section 13 – Disposal Considerations	
废弃处置方法 Waste Treatment	建议遵照国家和地方法规处置或再利用。 Recycle or dispose of in accordance with government, state & local regulations.
废弃注意事项 Attention for Waste Treatment	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。 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.

第十四部分 运输信息 Section 14 – Transport Information	
联合国货物编号（UN 编号） UN number	UN3480 & UN3481
运输专用名称 Proper shipping name	锂离子电池(荷电状态不超过其额定容量的 30%)或; Lithium ion batteries (lithium to a maximum of 30% SoC) 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 packed with equipment (including lithium ion polymer batteries) or; 内置在设备中的锂离子电池(包括锂离子聚合物电池)。 Lithium-ion batteries (including lithium-ion polymer batteries) built into the device
标签/标牌要求 Label(s) / Placard Required	杂项锂电池 Miscellaneous Lithium battery
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。 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.	
国际民用航空组织/国际航空运输协会： ICAO / IATA:	货物可根据民用航空组织（ICAO），TI 或国际航空运输协会（IATA）,DGR 66th（2025 版）包装说明(PI) 965 Section IA，PI 966 Section I 和 PI 967 Section I 相关规定进行空运。 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 appropriate of IATA DGR 66th (2025 Edition) for transportation.
国际海运危险货物规则： IMDG CODE:	可根据 IMDG Code 2024 版（Amdt 42-24）相关规定进行海运。 Shipping may be done in accordance with the IMDG Code 2024 Edition (Amdt 42-24).
美国运输部： DOT:	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。 Other requirements for the US Department of Transportation (DOT) Subchapter C, Hazardous Materials Regulations if shipped in compliance with 49 CFR 173.185.
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： ADR/ ADN:	自 2023 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。 Transport Requirements for United Nations Economic Commission for Europe (UNECE) ADR/ADN, Applicable as from 1 January 2023.
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。 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.	

第十五部分 法规信息
Section 15 – Regulatory Information

《危险物品规则》

Dangerous Goods Regulations

联合国《关于危险货物运输的建议书 规章范本》（23th 修订版）

Recommendations on the Transport of Dangerous Goods-Model Regulations (23th revised edition)

联合国《关于危险货物运输的建议书 试验和标准手册》

Recommendations on the Transport of Dangerous Goods-Manual of Tests and Criteria

《国际航空运输协会》（IATA）

International Air Transport Association (IATA)

《国际海运危险货物规则》（IMDG Code 2024 版 Amdt 42-24）

International Maritime Dangerous Goods (IMDG Code 2024 Edition Amdt 42-24)

《危险货物安全运输技术指南》

Technical Instructions for the Safe Transport of Dangerous Goods

《危险货物分类和品名编号》- GB 6944-2012

Classification and code of dangerous goods (GB 6944-2012)

2012《职业安全与健康标准》危险通信标准（29 CFR 1910.1200）

2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

《有毒物质控制法》（TSCA）

Toxic Substance Control Act (TSCA)

《联邦条例》

Code of Federal Regulations

符合所有联邦、州和地方法律

In accordance with all Federal, State and local laws

第十六部分 其他信息
Section 16 – Additional Information

MSDS 创建日期：2025 版本：1.0

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

*** 报告结束 ***

*** End of Report ***