Material Safety Data Sheet

Section 1 - PRODUCT AND COMPANY IDENTIFICATION
第 1 部分-产品和公司标识

Product Name: Polymer Li-ion Cell
产品名称：聚合物锂离子电芯
Manufacture: Guangdong Cvasun New Energy Technology Co., Ltd
制造商：广东嘉尚新能源科技有限公司
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2. COMPOSITION / INFORMATION ON INGREDIENTS
2.成分/成分信息

Chemical Name 化学名称	Chemical Formula 化学式	CAS No. CAS 号（化学文摘索引登记号）	In % by Weight 质量占比%
三元材料 / Lithium-nickel-cobalt-manganese oxides	--	113066-89-0	25%-40%
石墨 / Graphite	$C_{24}X_{12}$	7782-42-5	20%-30%
电解液 / Organic electrolyte	--	--	10%-15%
铝箔 / Aluminum	Al	7429-90-5	5%-8%
聚偏氟乙烯 /Polyvinylidene Fluoride (PVDF)	$C_2H_2F_2$	24937-79-9	0.5%-1%
铜箔 / Copper Foils	Cu	7440-50-8	7%-10%
丁苯橡胶 /Styrene Butadiene Rubber (SBR)	$C_{36}H_{42}X_2$	9003-55-8	0.5%-1%
聚乙烯 / Polyethylene	--	9002-88-4	0.1%-1%
聚丙烯 / Polypropylene	--	9003-07-0	0.5%-1%

3. HAZARDS IDENTIFICATION
3 危险识别

Health Hazards (Acute and Chronic)
健康危害（急性和慢性）

These Chemicals are contained in a sealed can. Risk of exposure occurs only if the battery is mechanically or electrically abused. Contact of electrolyte and extruded lithium with skin and eyes should be avoided.
这些化学品处于密封保存状态。仅在机械或电气滥用电池的情况下，才有暴露的危险。应避免皮肤和眼睛接触电解质和被挤压锂。

Sign/Symptoms of Exposure
暴露迹象/症状

A shorted battery can cause thermal and chemical burns upon contact with the skin. May be a reproductive hazard.
电池短路会在接触皮肤时引起热灼伤和化学灼伤。可能有生殖危险。

4. FIRST-AID MEASURES
4.急救措施

Ingestion: Do not induce vomiting or give food or drink. Seek medical attention immediately.
食入：请勿催吐或进食或喝水。请立即就医。

Inhalation: Provide fresh air and seek medical attention.
吸入：提供新鲜空气并就医。

Eyes contact: Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.
眼睛接触：立即用水冲洗至少 15 分钟，抬起上下眼睑，直到没有化学物质残留。就医。

Skin contact: Remove contaminated clothing and thoroughly wash with soap and plenty of water. If irritation persists, seek medical attention.
皮肤接触：脱掉被污染的衣服，用肥皂和大量的水彻底清洗。如果刺激持续，请就医。

5. FIRE-FIGHTING MEASURE
5. 消防措施

Flash Point: N/A
闪点：不适用

Auto-Ignition Temperature: N/A
自燃温度：不适用

Extinguishing Media: Water, CO_2
灭火介质：水，二氧化碳

Special Fire-Fighting Procedures: Self-contained breathing apparatus.
特殊消防措施：自给式呼吸器。

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.
异常的火灾和爆炸危险：当电池暴露于过多的热量中时，电池可能会排气。

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

有害燃烧产物：一氧化碳，二氧化碳，氧化锂烟雾。

6. ACCIDENTAL RELEASE MEASURES
6.泄漏应急处理

Steps to be Taken in case Material is Released or Spilled 物料泄漏或溢出时应采取的步骤

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.

如果释放了电池材料，请从区域移开人员，直到烟雾消散。提供最大的通风以清除有害气体。用布擦拭干净，然后将其放入塑料袋中并放入钢罐中。

首选的响应是离开该区域并让电池冷却并散发蒸汽。提供最大的通风。 避免皮肤和眼睛接触或吸入蒸气。用吸收剂清除溢出的液体并焚化。

Waste Disposal method 废物处置方法

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.

建议将电池彻底放电，将废弃的电池统一交给相关部门，并按照当地，州和联邦的批准要求处理电池。请咨询州环境保护机构和/或联邦 EPA。

7. HANDLING AND STORAGE
7.处理和储存

Storage: Do not place the cell or battery near heating equipment, nor expose to direct sunlight for long periods. Elevated temperatures can result in shortened battery life and degrade performance.

Store in cool place (temperature: -20-20℃, humidity: 40-80%).

存放：请勿将电芯或电池放置在加热设备附近，也不要长时间暴露在直射的阳光下。温度升高会导致电池寿命缩短并降低性能。

存放在阴凉处（温度：-20-20℃，湿度：40-80%）。

Mechanical Containment: If potting or sealing the cell or battery in an airtight or watertight container is required, consult your Micro Trading (Shanghai) Ltd Representative for precautionary suggestions. Do not obstruct safety release vents on cells. Encapsulation of batteries will not allow cell venting and can cause high pressure rupture.

机械密封：如果需要将电芯或电池灌封或密封在气密或水密的容器中，请咨询 Micro Trading（Shanghai）Ltd 的代表以获得预防性建议。请勿阻塞电池上的安全释放孔。电池的封装将不允许电池排气，并可能导致高压破裂。

Handling: Never throw out cells in a fire or expose to high temperatures. Do not soak cells in water and seawater. Do not expose to strong oxidizers. Do not give a strong mechanical shock or throw down. Never disassemble, modify or deform. Do not connect the positive terminal to the negative terminal with electrically conductive material. Incompatible products: Conductive materials, water, seawater, strong oxidizers and strong acids Packing material (recommended, not suitable): Insulative and tear proof materials are recommended.

The contents of a leaking cell, when exposed to water, may result in a fire and/or explosion. Crushed or damaged cells and batteries may result in a fire.

处理：切勿将电池丢入火中或暴露于高温下。不要将细电芯浸入水和海水中。不要暴露于强氧化剂。请勿施加强

烈的机械冲击或摔落。切勿拆卸，改装或变形。请勿使用导电材料将正极端子连接到负极端子。不兼容的产品：导电材料，水，海水，强氧化剂和强酸包装材料（推荐，不合适）：建议使用绝缘和防撕裂材料。
泄漏的电池中的内容物暴露于水时，可能会导致起火和/或爆炸。电芯或电池粉碎或损坏可能会引起火灾

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
8. 暴露控制/个人防护

Engineering controls: Investigate engineering techniques to reduce exposures use with adequate ventilation and recommended personal protective equipment.
工程控制：研究工程技术以减少暴露在适当的通风和建议的个人防护设备的使用。
Eye/Face protection: Use good industrial practice to avoid eye contact. Processing of this product releases vapors or fumes which may cause eye irritation. Where eye contact may be likely wear chemical goggles and have eye flushing equipment available
眼睛/面部防护：采取良好的工业措施，避免眼睛接触。 该产品的加工过程中释放出蒸气或烟雾，可能引起眼睛刺激。可能与眼睛接触的地方戴化学防护眼镜并配备洗眼设备
Skin protection: Minimize skin contamination by following good industrial hygiene practices. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.
皮肤防护：遵循良好的工业卫生习惯，将皮肤污染降至最低。 建议戴防护手套。处理后，请彻底洗净手和受污染的皮肤。
Respiratory protection: Avoid breathing dust and processing vapors. When adequate ventilation is not available, wear a NIOSH/MSHA respirator approved for protection against inorganic dusts.
呼吸系统防护：避免吸入粉尘和加工蒸气。如果没有足够的通风，请佩戴经批准可防止无机粉尘的 NIOSH / MSHA 防毒面具。
Special clothing: Rubber gloves.
特殊服装：橡胶手套。

9. PHYSICAL and CHEMICAL PROPERTIES
9.物理化学特性

Model 型号: 1260110-10000mAh 3.7V 37Wh

Specifications 能量: 1260110-10000mAh 3.7V 37Wh
Nominal Voltage/capacity 标称电压/容量: 3.7V 10000mAh

Appearance characters 外观特征: Approximate Silver Cuboid

10. STABILITY AND REACTIVITY
10.稳定性和反应性

Stability: Stable
稳定性：稳定
Conditions to Avoid: Heating, mechanical abuse and electrical
应避免的条件：加热，机械滥用和电

Hazardous Decomposition Products: N/A

危险的分解产物：不适用

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

如果泄漏，禁止与强氧化剂，无机酸，强碱，卤代烃接触。

11. TOXICOLOGICAL INFORMATION
11.毒理学信息

Inhalation, skin contact and eye contact are possible when the battery is opened. Exposure to internal contents, the corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibrotic lung injury and membrane irritation.

打开电池时，可能会吸入，皮肤接触和眼睛接触。内部内容物暴露时，腐蚀性烟雾对皮肤，眼睛和粘膜会非常刺激。过度接触会引起非纤维化性肺损伤和膜刺激症状。

12. ECOLOGICAL INFORMATION
12. 生态学信息

When promptly used or disposed the battery does not present environmental hazard. When disposed, keep away from water, rain and snow.

及时使用或处置电池不会对环境造成危害。 处理后，请远离水，雨水和雪。

13. DISPOSAL CONSIDERATIONS
13.废弃处置

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

处置物质或制剂的适当方法

If battery are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amount of not reaction or unconsumed lithium remaining in the spent battery. The battery must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste. Recycling of battery can be done in authorized facility, through licensed waste carrier.

如果电池仍充满电或仅部分放电，则由于大量的未反应或废电池中剩余的未消耗的锂，它们可被视为反应性危险废物。在将电池作为危险废物处置之前，必须通过认可的二级处理设施对电池进行中和。电池的回收可以在授权的设施中通过许可的废物运输商进行。

14. TRANSPORT/SHIPPING INFORMATION
14.运输信息

The rechargeable Lithium-Ion battery as stated here are made in compliance to the requirements stated in the latest 65th edition of IATA Dangerous Goods Regulations Section IB of Packing Instruction 965 or Section II of Packing Instruction 966~967 such that they can be transported as a NOT RESTRICTED (non-hazardous/non-dangerous) goods.

如此处所述，锂离子充电电池的生产符合最新的 IATA 第 65 版《危险品规章》包装说明 965 章第 IB 节或包装说明 966～967 章的第 II 节中的规定，以便运输。作为非限制（非危险/非危险）商品。

With regard to transport, the following regulations are cited and considered:

- Regulations concerning the International Carriage of Dangerous Goods by Rail (2023).
- The International Air Transport Association (IATA) Dangerous Goods Regulations (65th Edition, 2024)
- International Maritime Dangerous Goods Code (41-22).
- Recommendations on the transport of dangerous goods-model Regulations 22th.
- European Agreement concerning the International Carriage of Dangerous Goods by Road (2023)

关于运输，引用并考虑了以下规定：

- 《国际危险货物铁路运输欧洲协定》 (RID) (2023 版)
- 国际航空运输协会（IATA）危险货物条例（2024 年第 65 版）
- 《国际海运危险货物规则》 (IMDG-CODE) (41-22 版)
- 联合国《关于危险货物运输的建议书 规章范本》 (22 版)
- 《国际危险货物道路运输欧洲协定》(ADR) (2023 版)

Our products are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to all the applicable international and national governmental regulations, not limited to the above mentioned.

根据所有适用的国际和国家政府法规，我们的产品已正确分类，描述，包装，标记和标签，并且处于运输的适当状态，适用于但不限于上述规定。

15. REGULATORY INFORMATION
15.法规信息

Law Information

法律信息

Dangerous Goods Regulation 危险品法规

Recommendations on the Transport of Dangerous Goods Model Regulations 关于危险货物运输示范法规的建议

International Maritime Dangerous Goods 国际海上危险品

Classification and Code of Dangerous Goods 危险品分类和代码

OSHA Hazard Communication Standard Status 危险品分类和代码

Toxic Substances Control Act (TSCA) Status 有毒物质控制法（TSCA）状况

In accordance with all Federal, State and Local Laws. 遵守所有联邦，州和地方法律。

16. OTHER INFORMATION
16.其他信息

The data in this Material Safety Data Sheet relates only to the specific material designate herein.

本材料安全数据表中的数据仅与此处指定的特定材料有关

For more information, please contact Guangdong Cvasun New Energy Technology Co., Ltd. sales representative.

MATERIAL SAFETY DATA SHEET

获取更多信息，请联系广东嘉尚新能源科技有限公司销售代表

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MSDS Creation Date: Jan.4,2024
MSDS 创建日期：2024 年 1 月 4 日