

SAFETY DATA SHEET

安全技术说明书

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

第一部分 化学品及企业标识

Product Name: Lithium Metal Battery
中文名称: 锂金属电池
Model: CR9V 9V 1200mAh
产品型号:
Company: Guangzhou Great Power Energy & Technology Co., Ltd.
企业名称: 广州鹏辉能源科技股份有限公司
Address: No.912, West Village Segment, Shiliang Road, Shawan Town,
Panyu District, Guangzhou City, Guangdong Province 511483,
P.R. China
地址: 广州市番禺区沙湾镇市良路（西村段）912号
Post Code: 511483
邮编:
Emergency Phone: 0086-20-39196888
企业应急电话:
E-mail: liaott@greatpower.net
SDS Date: 2024年1月1日
生效日期:

SECTION 2 HAZARDS IDENTIFICATION

第二部分 危险性概述

| | |
|-------------------|--|
| 爆炸危性 Explosive | 该物品不属于爆炸危险品 This article does not belong to the explosion dangerous goods |
|-------------------|--|

| | |
|-----------------------|--|
| 易燃危险性 Flammable | 该物品不属于易燃危险品 This article does not belong to the flammable material |
| 氧化危险性 Oxidation | 该物品不属于氧化危险品 This article does not belong to the oxidation of dangerous goods |
| 毒害危险性 Toxic | 该物品不属于毒害危险品 This article does not belong to the toxic dangerous goods |
| 放射危险性 Radioactive | 该物品不属于放射危险品 This article does not belong to the radiation of dangerous |
| 腐蚀危险性 Mordant risk | 该物品不属于腐蚀危险品 This article does not belong to the corrosion of dangerous goods |
| 其他危险性 other risk | /该电池锂含量为 1.2g, 属于锂金属电池/第九类危险品 /The lithium content of the battery is 1.2g, which belong to the Lithium metal batteries/Class 9 dangerous goods. |

SECTION 3 INFORMATION ON INGREDIENTS

第三部分 成分/组成信息

| Ingredient 化学成分 | Percent 百分比 | CAS Index No./EC No. CAS索引号/EC号 | Molecular formula 分子式 |
|------------------------------|----------------|------------------------------------|--------------------------|
| Manganese Dioxide 二氧化锰 | 58.5% | 1313-13-9 | MnO2 |
| Lithium 锂 | 6% | 7439-93-2 | Li |
| Propylene carbonate 碳酸丙烯酯 | 10% | 108-32-7 | PC |
| Dimethyl ether 二甲醚 | 0.3% | 115-10-6 | DME |
| Lithium Perchlorate 高氯酸锂 | 10.3% | 7791-03-9 | LiClO4 |
| Polypropylene 聚丙烯 | 3.6% | 9003-07-0 | PP |
| Nickel 镍 | 1.7% | 7440-02-0 | Ni |
| Aluminum 铝 | 9.6% | 7429-90-5 | Al |

Remark: The weight of metallic lithium per cell is <1.0g.

SECTION 4 FIRST-AID MEASURES

第四部分 急救措施

电池外壳破裂，内容物接触人体会产生危害，一旦发生接触，应采取以下应急措施：

Once battery shell rupture, content contact with the human body will produce harm, once contact, should take the following emergency measures:

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。如果当事人仍然清晰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

SECTION 5 FIRE FIGHTING MEASURES

第五部分 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.

SECTION 6 ACCIDENTAL RELEASE MEASURES

第六部分 泄露应急处理

Procedure of Personal Precaution:

If batteries show signs of leaking, avoid skin or eye contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean up. Mix with inert material(e.g. Dry sand, vermiculite) and transfer to sealed container for disposal.

应急处理：若电池内的物质泄露，用洁净铲子收集于干燥、洁净、有盖的容器中待处置。处理人员应穿合适的防护服。

SECTION 7 HANDLING AND STORAGE

第七部分 操作处置与储存

Handling: Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse. More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidizing agents, Corrosives.

操作处置注意事项：操作人员应经过培训，严格遵守操作规程。建议操作人员穿一般作业防护服，带安全手套。远离火种、热源，避免阳光直射。工作场所严禁吸烟。工作场所应有通风系统和设备。避免随意拆卸电池和弄错正负极。须牢记在内包装中，以有效防止短路和防止可导致短路的移动。万一电池内的物质泄露，避免眼睛、皮肤直接接触，避免吸入。应与强氧化剂、腐蚀品分开存放。

Storage: Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could to short circuits. **Materials to Avoid:** Strong oxidizing agents, Corrosives.

储存注意事项: 储存于阴凉、通风的库房内。远离火种、热源，避免阳光直射。应与强氧化剂、腐蚀品分开存放。储存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。

SECTION 8 EXPOSURE CONTROL/PPE

第八部分 接触控制/个体防护

Engineering Controls:

Use ventilation equipment if available. Safety shower and eye bath

Personal Protective Equipment:

Respiratory System: Not necessary under conditions of normal use.

Eyes: Not necessary under conditions of normal use.

Clothing: Wear appropriate protective clothing.

Hand: Safety gloves.

Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

最高容许浓度:

未制定标准

检测方法:

无

工程控制:

有通风系统和设备。提供安全淋浴和洗眼设备。

呼吸系统防护:

正常使用情况下不需要。

眼睛防护:

正常适应情况下不需要。

身体防护:

穿一般作业防护服。

手防护:

带安全手套。

其它防护:

工作现场严禁吸烟、进食。工作后，淋浴更衣。

SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

第九部分 理化特征

外形:

Appearance:

认证编号: RZUN2020-3087

Ref, No.: RZUN2020-3087

气味: 泄漏时, 有醚的气味。

Odour: If leaking, smells of medical ether.

酸碱度: 不适用

pH: Not applicable as supplied.

闪点: 针对单个组分暴露情况, 其他不适用。

Flash Point: Not applicable unless individual components exposed.

易燃度: 针对单个组分暴露情况, 其他不适用。

Flammability: Not applicable unless individual components exposed.

相对密度: 针对单个组分暴露情况, 其他不适用。

Relative density: Not applicable unless individual components exposed.

溶解性 (水溶性) 针对单个组分暴露情况, 其他不适用。

Solubility (water): Not applicable unless individual components exposed.

溶解性 (其他) 针对单个组分暴露情况, 其他不适用。

Solubility (other): Not applicable unless individual components exposed.

SECTION 10 STABILITY AND REACTIVITY

第十部分 稳定性与反应活性

稳定性: 产品在第 7 节所述的条件下稳定。

Stability: Product is stable under conditions described in Section 7.

应避免的条件: 加热 70°C 以上或焚烧、变形、毁坏、粉碎、拆卸、过充电、短路, 长时间暴露

在潮湿的条件下。

Conditions to Avoid : Heat above 70°C or incinerate. Deform. Mutilate. Crush.

Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions.

应避免的材料: 氧化剂, 碱, 水。

Materials to avoid: Oxidising agents, alkalis, water.

危险分解物: 有毒烟雾, 并可能形成过氧化物。

Hazardous Decomposition Products : Toxic Fumes, and may form peroxides.

聚合危害: 不适用

Hazardous Polymerization : N/A.

如果发生泄露，避免与强氧化剂，无机酸，强碱，卤代烃接触。
If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated hydrocarbons.

SECTION 11 TOXICOLOGICAL INFOPMATION

第十一部分 毒理学资料

Toxicity Data:

Not available.

Irritation Data:

The internal battery mater ials may cause irritatin to eyes and skin.

急性毒性：无资料
刺激性：其中的电解质对眼睛、皮肤有刺激性。

SECTION12 ECOLOGICAL INFORMATION

第十二部分 生态学资料

No data available.

| | |
|---------|-----|
| 生态毒性： | 无资料 |
| 生物降解性： | 无资料 |
| 非生物降解性： | 无资料 |

SECTION 13 DISPOSAL CONSIDERATION

第十三部分 废气处理

Appropriate Method of Disposal of Substance:

Lithium batteries are best disposed of as a non-hazardous waste when fully or mostly discharged. Contact a licensed professional waste disposal service to dispose of large quantities materials.

废弃处置方法: 废弃电池的处置应符合《中华人民共和国固体废物污染环境防治法》，《废电池污染防治技术政策》等有关法律、法规、政策和标准的要求。

SECTION 14 TRANSPORT INFORMATION

第十四部分 运输信息

运输标签: 锂电池标记, 第 9 类锂电池危险品标签, 仅限货机标签

Label for conveyance: Lithium Battery Mark, class 9 lithium battery hazard label, Cargo Aircraft Only Label.

UN 编号: UN3090

UN Number: UN3090

包装级别: 不适用

Packaging 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

正确的装运名称: 锂金属电池 (包括锂合金电池)

Proper Shipping name: Lithium metal batteries (Including Lithium alloy batteries)

危险分类: 货物符合 IATA 第 65 版《危险品规则》包装说明 968 第 IB 节规定(2024 年版),《国际海运危险货物规则》特殊规 312 海运危险货物规则 (Amdt. 41-22) 2022 版, 包括通过 UN38.3 测试手册要求。

Hazard Classification: The goods are complied with the requirements of Section IB of Packing instruction 968 of 65th DGR Manual of IATA(2024 Edition), special provision 312 of IMDG CODE (Amdt. 41-22) 2022 Edition, including the passing of the UN38.3 test.

OR:

或者:

运输标签: 锂电池操作标记

Label for conveyance: Lithium Battery Mark

UN Number: UN3091

包装级别: 不适用

Packaging 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

正确的装运名称: 安装在设备中的锂金属电池 (包括锂合金电池) / 与设备伴随出货的锂金属电池 (包括锂合金电池)

Proper Shipping name: Lithium metal batteries (Including lithium alloy batteries)

危害分类: 货物符合 IATA 第 65 版《危险品规则》包装说明 969/970 第 IA/IB/II 节规定 (2024 年版), 《国际海运危险货物规则》特殊规定 312 包装导则 903 (Amdt. 41-22) (2022 年版), 《危险货物物品名表》特殊规定 312 包装导则 P903 (2012 年版), 《欧洲道路危险货物国际运输协议》特殊规定 312 包装导则 P903 (2023 年版), 包括通过 UN38.3 测试手册要求。

Hazard Classification: The goods are complied with the requirements of Section A/IB/II of Packing Instructions 969/970 of 65th DGR Manual of IATA (2024 Edition), Special provision 312 Packing Instruction 903 of IMDG CODE (Amdt. 41-22) (2022 Edition), Special provision 312 Packing Instruction 903 of 《List of dangerous goods》 (2012 edition), Special provision 188/312/240/Packing Instruction 903 of ADR 2023, including the passing of the UN38.3 test.

SECTION 15 REGULATORY INFORMATION

第十五部分 法规信息

《对危险货物运输的有关规定的建议》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《国际海运危险货物规则》

《International Maritime Dangerous Goods》

《危险货物物品名表》

《List of dangerous goods》

《欧洲道路危险货物国际运输协议》

《European Agreement concerning the International Carriage of Dangerous Goods by Road》

《危险品安全运输技术指令》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《危险货物分类和品名编号》

《Classification and code of dangerous goods》
《职业安全卫生法》
《Occupational Safety and Health Act》(OSHA)
《有毒物质控制法》
《Toxic Substance Control Act》(TSCA)
《消费产品安全法》
《Consumer Product Safety Act》(CPSA)
《联邦环境污染控制法》
《Federal Environmental Pollution Control Act》(FEPCA)
《石油污染法案》
《The Oil Pollution Act》(OPA)
《超级基金修正案和再授权法案III(302/311/312/313)》
《Superfund Amendments and Reauthorization Act TitleIII (302/311/312/313)》
(SARA)
《资源保护及恢复法案》
《Resource Conservation and Recovery Act》(RCRA)
《安全饮用水法》
《Safety Drinking Water Act》(CWA)
《加州 65 提案》
《California Proposition 65》
《美国联邦法规》
《Code of Federal Regulations》(CFR)
根据所有联邦、州和地方法律。
In accordance with all Federal, State and local laws.

SECTION 16 OTHER INFORMATION

第十六部分 其他信息

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that person receiving it shall made his own determination of the suitability of the material for his particular purpose.

上述信息是基于现有的数据信息,在实际应用过程中可能出现其他未预料的情况,

其相应信息可能需要修改，我方不承担引项责任。在操作中请根据实际情况做出相应的正确的处置。

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