

材料安全数据表 Material Safety Data Sheet

样品名称: 锂离子电池组 DH1448CYJ-02
14.4V 5000mAh 72Wh(Rated) 5200mAh 74.88Wh(Typical)

Samples Name: Rechargeable Li-ion Battery DH1448CYJ-02
14.4V 5000mAh 72Wh(Rated) 5200mAh 74.88Wh(Typical)

供应商名称: 浙江欣动能源科技有限公司
Supplier Unit: De.power Technology Limited

供应商地址: 浙江省金华市兰溪市兰江街道鸿运路 16 号
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欣动能源科技有限公司
De.power Technology Limited

第一部分 - 化学产品和公司的标识

Section 1 – Chemical Product and Company Identification

样品名称: 锂离子电池组 DH1448CYJ-02

Sample Model: Rechargeable Li-ion Battery DH1448CYJ-02

制造商: 浙江欣动能源科技有限公司

Manufacturer: De.power Technology Limited

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第二部分 - 主要危险性识别

Section 2 – Hazards Identification

健康危害(急性和慢性)

Health Hazards (Acute and Chronic)

这些化学物质包含在一个密封的可以接触。风险只发生如果电池是机械力或电滥用。接触的电解质和挤压锂应避免与皮肤和眼睛。

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.

签署/暴露的症状

Sign/Symptoms of Exposure

做空锂电池会导致热接触和化学烧伤皮肤。可能是生殖危害。

A shorted lithium battery can cause thermal and chemical burns upon contact with the skin. May be a reproductive hazard .

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第三部分 - 成份/成份信息

Section 3 – Composition/Information on Ingredient

INGREDIENT	CONCENTRATION	CAS NO.	EC NO.
Aluminum Foil	5	7429-90-5	
Metal Oxide (proprietary)	43	182442-95-1	
Copper Foil	9	7440-50-8	
Carbon (proprietary)	30	7440-44-0	
Ethylene carbonate	3	96-49-1	
Lithium hexafluorophosphate	2	21324-40-3	
Dimethyl carbonate	3	616-38-6	
Ethyl Methyl Carbonate	5	623-53-0	

第四部分-急救措施

Section 4 – First Aid Measures

眼睛/Eyes

用大量的水冲洗眼睛至少 15 分钟,偶尔起重上下眼睑。获得医疗援助。

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

皮肤/Skin

去除被污染的衣服,用大量的水冲洗皮肤 15 分钟的淋浴。获得医疗援助。

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

吸入/Inhalation

从暴露中转移,并立即转移到新鲜空气。如果可用使用氧气。

Remove from exposure and move to fresh air immediately. Use oxygen if available.

摄入/Ingestion

给至少 2 杯牛奶或水。诱发呕吐,除非病人是无意识的 立即送医。

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

第五部分 -消防措施

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Section 5 – Fire Fighting Measures

闪点/**Flash Point:** 不涉及 N/A

自燃温度/**Auto-Ignition Temperature:** 不涉及 N/A

灭火介质/**Extinguishing Media:** 干粉,二氧化碳 Dry powder, CO₂

不寻常的火灾和爆炸危险: 当电池内容物过热时, 电池可能会排气。

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

有害燃烧产物: 一氧化碳、二氧化碳、氧化锂烟雾。

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

第六部份-意外释放的措施

Section 6 – Accidental Release Measures

必须采取措施以防溢出的物质被释放

Steps to be Taken in case Material is Released of Spilled

如果电池材料发布、删除人员从区域到烟雾消散。提供最大限度的通风,清除有害气体。用一块布擦,和处理在一个塑料袋,放到一个钢。

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.

首选的反应就是离开这个地区,让电池冷却,蒸汽消散。提供最大的通风。避免皮肤和眼睛接触或吸入蒸汽。清除溢出的液体吸收剂和焚烧

The preferred response is to leave the area and allow the batteries 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.

废物处理方法/**Waste Disposal Method**

电池放电结束,交相关部门统一的废弃电池,电池的处理按照批准的地方、州和联邦政府的要求。咨询国家环境保护局和/或联邦环保局。

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.

第七部份-处理和存储

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Section 7 –Handling and Storage

电池不应该打开,摧毁或焚烧,因为它们可能泄漏或破裂并释放到环境的成分包含在密闭容器。

不短路端子,或过量充电电池,迫使过放电,把火。请勿挤压或刺穿电池,或浸泡在液体

The batteries 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.

预防措施在处理 and 存储

Precautions to be taken in handling and storing

避免机械或电气滥用。存储最好在凉爽、干燥和通风的地方这是受温度变化小.Storage 应该避免在高温下。不要将电池放置在加热设备,也没有长时间暴露于阳光直射。

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.

其他预防措施/Other Precautions

电池可能会爆炸或造成烧伤,如果拆卸,碾碎或暴露于火或高温。不短或安装不正确的极性。

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

第八部分-曝光控制,个人防护

Section 8 –Exposure Controls, Personal Protection

呼吸防护: 在电池发泄的情况下,提供尽可能多的通风。避免与发泄电池封闭区域。没有必要呼吸防护的条件下正常使用。

Respiratory Protection :In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting batteries. Respiratory Protection is not necessary under conditions of normal use.

通风:没有必要的条件下正常使用。

Ventilation:Not necessary under conditions of normal use.

防护手套:没有必要的条件下正常使用。

Protective Gloves:Not necessary under conditions of normal use.

其他防护服或设备:没有必要的条件下正常使用。保护、防护手套、防护服和安全玻璃一面盾牌。

Protective Gloves:Not necessary under conditions of normal use.

Other Protective Clothing or Equipment:Not necessary under conditions of normal use.

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

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第九部分-理化特性

Section 9 –Physical and Chemical Properties

额定电压/**Nominal Voltage: 14.4V**

额定容量/**Rated Capacity: 5000mAh**

外观特征: 无味、固体/**Appearance characters: odorless, solid**

第十部分-稳定性和反应活性

Section 10 –Stability and Reactivity

稳定性: 稳定/**Stability: Stable**

避免接触的条件: 滥用加热、机械和电气

Conditions to Avoid : Heating, mechanical abuse and electrical abuse.

产品分解危害: 不涉及

Hazardous Decomposition Products: N/A .

聚合危害: 不涉及

Hazardous Polymerization: N/A.

如果泄露,禁止与强氧化剂接触,无机酸、强碱金属卤化碳氢化合物

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

第十一部分-毒理性资料

Section 11 –Toxicological Information

打开电池时,可能会有吸入、皮肤接触和眼神接触。

暴露在内部内容物,腐蚀性气体将非常刺激皮肤,眼睛和粘膜。过度暴露可导致非纤维化肺损伤和膜刺激症状。

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-fibrosis lung injury and membrane irritation.

第十二部分-生态学信息

Section 12 –Ecological Information

当及时使用或处置电池不存在环境风险。当处理,远离水,雨和雪。

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

第十三部分-废弃处理

Section 13 –Disposal Considerations

物质和废弃物处理方式

如果电池仍然被充分充电或者只是部分放电，这些电池可以被认为是活性危险废物，主要因为这些废弃电池中还存留有大量未耗尽的锂。这些电池在被当做危险废物处置之前，必须通过被认可的二次处理设施进行中和。电池回收可以通过使用许可的废弃物载体在相关的授权机构进行处理。

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARTION

If batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amount of not creation, or unconsumed lithium remaining in the spent battery. The batteries 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.

第十四部分-运输信息

Section 14 –Transport Information

在运输时，必须保证装载此物品的容器无漏液和溢出情况，搬动时勿造成坠落或直接丢落或破损，防止物品散落或受潮。包装箱必须小心轻放，勿振动，否则会造成电芯间的互相碰撞，可参见条款 7-操作及贮存。

During transportation, it is necessary to ensure that the container loaded with the goods does not leak and overflow, do not fall or directly drop or damage when moving, to prevent the goods from falling or being affected by moisture. The packing case must be handled with care, do not vibrate, otherwise it may cause the collision between the cells, refer to clause 7- operation and storage.

该运输满足联合国危险物品运输《试验和标准手册》的第三部分38.3款规定的针对危险品运输的所有要求。

The transport meets all the requirements for the transport of dangerous goods set out in part III, paragraph 38.3, of the United Nations Manual of Tests and Criteria for the Transport of Dangerous Goods.

列出的电池模型有一个瓦特小时不超过 500 wh 的评级。和货物不包含项列在国际航空运输协会 DGR 特别规定 A154 和符合所有要求在联合国第三部分手动的测试和标准,38.3 小节

The battery models listed have a Watt-hour rating of no more than 500Wh.And shipment contains no item listed under IATA DGR Special Provision A154 and meets all requirements under UN Manual of Tests and Criteria Part III, subsection 38.3.

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No	测试项目 ITEMS	结果 RESULT	备注 REMARKS
1	高度模拟 Altitude simulation	Pass	测试项目 1~5 必须按照顺序依次在同一个电芯或者电池上进行。 Test1 to 5 must be conducted in sequence on the same cell or battery
2	热测试 Thermal test	Pass	
3	振动 Vibration	Pass	
4	冲击 Shock	Pass	
5	外部短路 External short circuit	Pass	
6	撞击 Impact	Pass	
7	过度充电 Overcharge	Pass	仅电池需要做此项测试。 Only battery do need this test item
8	强制放电 Forced discharge	Pass	

每个包能够承受1.2米跌落试验在任何方向没有损坏电池或电池包含在其中,没有改变的内容,以使电池电池(细胞或细胞)接触,没有发布的内容。包装不超过10公斤总质量。

Each package is capable of withstanding a 1.2m drop test in any orientation without damage to cells or batteries contained therein, without shifting of the contents so as to allow battery to battery (or cell to cell) contact and without release of contents. Package does not exceed 10kg gross mass.

包装符合要求的第二部分或部分 IB 的包装指令 965 国际航空运输协会的第 63 DGR 手册

Packaging complies with the requirements of section II or section IB of Packing Instructions 965 of 63rd DGR Manual of IATA.

货物按照普通货物的包装要求包装。

The goods are packaged according to the packaging requirement of ordinary goods.

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更多的信息关于航运、测试、标记和包装可以从标签获得主页<http://www.labelmaster.com>。

More information concerning shipping, testing, marking and packaging can be obtained from Label master at <http://www.labelmaster.com>.

单独的电池在运输,防止短路。他们应该用坚固的包装包装运输期间的支持。把他们的货物没有下降,下降,和破损。防止货物堆崩溃和被雨水湿。

Separate battery when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain.

运输方式: 空运/海运。

Transport Fashion: by air or sea transportation

第十五部分-法规信息

Section 15 –Regulatory Information

Law Information

《Dangerous Goods Regulation》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《International Maritime Dangerous Goods》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《Classification and code of dangerous goods》

《Occupational Safety and Health Act》 (OSHA)

《Toxic Substances Control Act》 (TSCA)

《Consumer Product Safety Act》 (CPSA)

《Federal Environmental Pollution Control Act》 (FEPCA)

《The Oil Pollution Act》 (OPA)

《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》 (SARA)

《Resource Conservation and Recovery Act》 (RCRA)

《Safety Drinking Water Act》 (CWA)

《California Proposition 65》

《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and Local laws .

第十六部分-其他信息

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Section 16 –Additional Information

上面的信息是基于我们所知道被认为正确的数据。由于该信息可能在我们无法控制的情况下使用，且可能是我们不熟悉的情况，对可能建议修改的信息，因此我们对其使用结果不承担任何责任。提供此信息的条件是，接收该信息的人应自行确定其特定用途的材料是否合适。

The above information is based on the date of which we are aware and is believed to be correct as of the data hereof .Since this in formation 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 the person receiving it shall make his own determination of the suitability of the material of his particular purpose.

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