



中国认可
检验
INSPECTION
CNAS IB0071



NO.2617100040

安全技术说明书

(SDS)

中文名称: 可充锂离子电池 ICR18650 3.7V
2000mAh 7.4Wh

英文名称: Rechargeable Li-ion Battery ICR18650 3.7V 2000mAh 7.4Wh

生效日期: 2017年11月20日

编制人: 冯卓

审核人: 董学胜

批准人: 张小明



上海化工研究院检测中心



广州鹏辉能源科技股份有限公司

安全技术说明书

SDS

可充锂离子电池 ICR18650 3.7V 2000mAh 7.4Wh

第一部分 化学品及企业标识

中文名称: 可充锂离子电池 ICR18650 3.7V 2000mAh 7.4Wh
 英文名称: Rechargeable Li-ion Battery ICR18650 3.7V 2000mAh 7.4Wh
 企业名称: 广州鹏辉能源科技股份有限公司
 地址: 广州市番禺区沙湾镇市良路(西村段)912号
 邮编: 511483
 E-mail: lcni@greatpower.net
 传真号码: 0086-20-39196768
 企业应急电话: 0086-20-39196888
 技术说明书编码: 2617100040
 生效日期: 2017年11月20日

第二部分 危险性概述

危险性类别: 通过联合国《关于危险货物运输的建议书 试验和标准手册》UN38.3试验。
侵入途径: 眼睛和皮肤接触、吸入电池内的物质。
健康危害: 无详细的毒理学研究。避免直接接触电池内的物质，防止吸入。

第三部分 成分/组成信息

化学品名称: 可充锂离子电池 ICR18650 3.7V 2000mAh 7.4Wh

成份	含量	CAS NO.	EC NO.
钴酸锂	28.3%	12190-79-3	235-362-0
石墨	17.2%	7782-42-5	231-955-3
六氟磷酸锂	1.3%	21324-40-3	244-334-7
碳酸乙烯酯	3.4%	96-49-1	202-510-0
碳酸二乙酯	4.7%	105-58-8	203-311-1
碳酸二甲酯	3.8%	616-38-6	210-478-4
聚丙烯	2%	9003-07-0	618-352-4
钢	31.1%	7439-89-6	231-096-4
铜	5.7%	7440-50-8	231-159-6

铝 2.5% 7429-90-5 231-072-3

第四部分 急救措施

皮肤接触: 若接触到电池内的物质, 立即用肥皂和大量清水彻底冲洗皮肤。
眼睛接触: 若接触到电池内的物质, 立即提起眼睑, 用流动清水冲洗15分钟以上。
吸入: 若吸入电池内的物质, 立即脱离现场至空气新鲜处。
食入: 若食入电池内的物质, 不宜催吐, 立即就医。

第五部分 消防措施

危险特性: 不属于易燃危险品。
灭火方法及灭火剂: 可用干粉、砂土、泡沫和二氧化碳灭火。
灭火注意事项及措施: 消防员应戴自给正压式呼吸器, 穿消防防护服以防止皮肤和眼睛接触。

第六部分 泄漏应急处理

应急处理: 若电池内的物质泄漏, 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。

第七部分 操作处置与储存

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, 戴安全手套。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。须牢固在内包装中, 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漏, 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。
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、泄漏应急处理设备和合适的收容材料。

第八部分 接触控制/个体防护

最高容许浓度: 未制定标准。
监测方法: 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: 正常使用情况下不需要。
身体防护: 穿一般作业防护服。
手防护: 戴安全手套。
其他防护: 工作现场严禁吸烟、进食。工作后, 淋浴更衣。

第九部分 理化特性

外观与性状: 蓝色圆柱型塑料薄膜外壳
气味: 无臭
熔点: >300℃
溶解性: 部分溶于水

第十部分 稳定性与反应活性

稳定性:	常温常压下稳定
避免接触的物质:	强氧化剂、腐蚀品。
避免接触的条件:	误操作, 高温, 防止短路和防止可导致短路的移动。
聚合危害:	不聚合。
有害分解产物:	金属氧化物、CO、CO ₂ 等。

第十一部分 毒理学资料

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。

第十二部分 生态学资料

生态毒性:	无资料。
生物降解性:	无资料。
非生物降解性:	无资料。

第十三部分 废弃处理

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。
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第十四部分 运输信息

运输时, 本品内置于设备中:	
IATA:	通过联合国《关于危险货物运输的建议书 试验和标准手册》UN38.3试验, 本品应满足包装说明967基本要求和第II部分的规定。
IMO:	通过联合国《关于危险货物运输的建议书 试验和标准手册》UN38.3试验, 根据IMO IMDG CODE 特殊规定188, 运输时不属于危险货物。

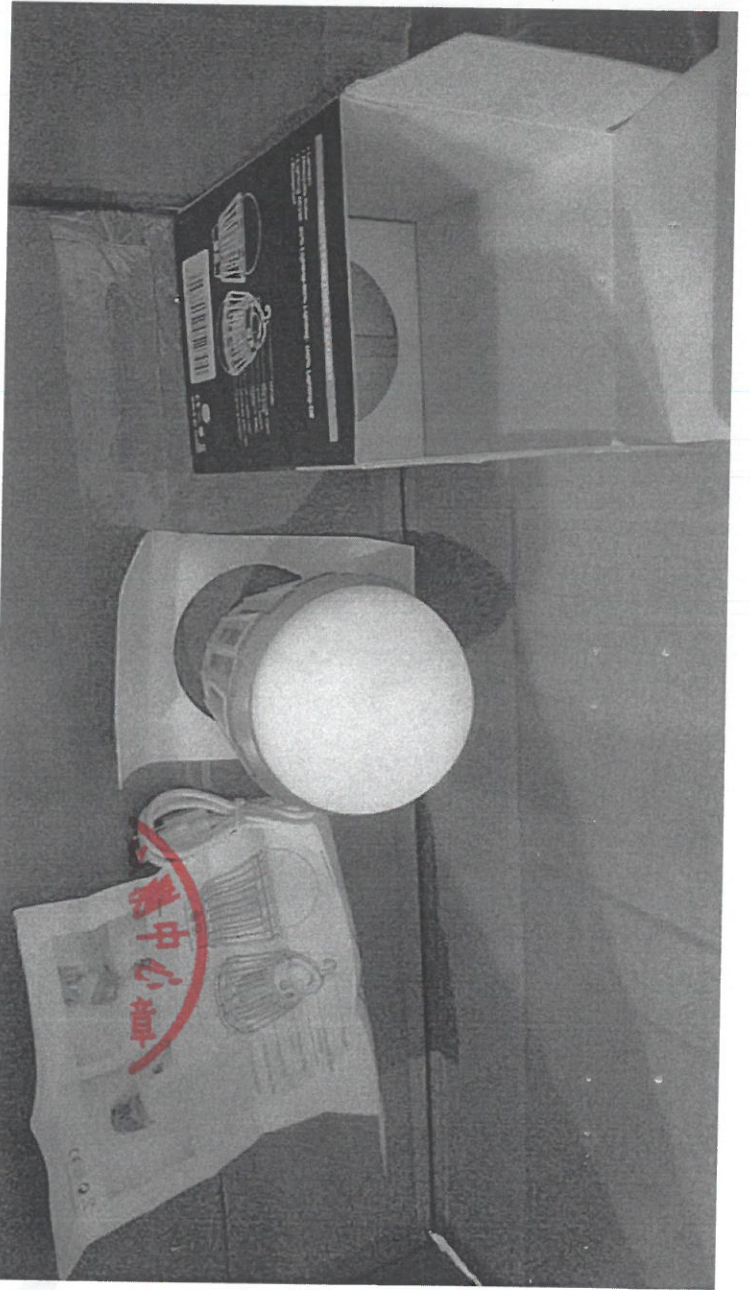
第十五部分 法规信息

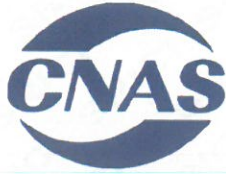
国内法规:	本品运输时在GB 12268-2012《危险货物物品名表》中的编号为: 3481, 名称和说明: 装在设备中的锂离子电池组。 该型号锂电池通过联合国《关于危险货物运输的建议书 试验和标准手册》UN38.3试验, 根据《危险货物物品名表》中的特殊规定, 不作为危险货物运输。 本品在《铁路危险货物物品名表》(2009版)中的铁危编号为: 91014, 品名: 装在设备中的锂电池组。
ICAO:	1. 除非依据《技术细则》的相关要求取得豁免, 单独包装的锂离子电池(芯)(UN 3480, PI 965)和锂金属电池(芯)(UN 3090, PI 968)货物禁止使用客机运输。 2. 除非依据《技术细则》的相关要求取得特别批准, 按照包装说明965要求运输的锂离子电池(芯)货物, 交运时锂离子电池(芯)的荷电状态不得超过其额定容量的30%。 3. 在任何一票货物中, 按照包装说明965第II节或968第II节要求运输的锂电池货物包装件不得超过一个。每个集合包装中所装的按照包装说明965第II节或968第II节要求运输的锂电池货物包装件不得超过一个。 4. 按照包装说明965或968第II节要求运输的锂电池货物包装件或集合包装必须与其它货物分开交运, 且在交运前不得装入集装器。

第十六部分 其他信息

填表时间: 2017年11月20日
填表部门: 上海化工研究院检测中心
电话(传真): 8621-52815377/52800971/52807275/52811034/52569800
修改信息: 第0次修订
其他信息: 本说明书根据委托方提供的成分含量信息和我中心现有知识编写。使用者有责任对说明书内容的正确性与完整性评估后,根据实际情况自行决定其适用性,并对使用后果承担法律责任。

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SAFETY DATA SHEET

Product Name: Rechargeable Li-ion Battery ICR18650
3.7V 2000mAh 7.4Wh

Revision Date: 2017-11-20

Compiler: Fengshuo

Checker: Dongxuesheng

Approver: Zhangxiangjin



Shanghai Research Institute of Chemical Industry Testing Centre



Guangzhou Great Power Energy & Technology Co., Ltd.

SAFETY DATA SHEET

Rechargeable Li-ion Battery ICR18650 3.7V 2000mAh 7.4Wh

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Rechargeable Li-ion Battery ICR18650 3.7V 2000mAh 7.4Wh
Company: Guangzhou Great Power Energy & Technology Co., Ltd.
Address: No.912, West Village Segment, Shiliang Road, Shawan Town, Panyu District, Guangzhou City, Guangdong Province, 511483, P. R. China
Email: lcnl@greatpower.net
Fax: 0086-20-39196768
Emergency Phone: 0086-20-39196888
SDS Number: 2617100040
SDS Date: 2017-11-20

SECTION2 HAZARDS IDENTIFICATION

Hazards Identification:

The battery has passed the test items of UN Model Regulations, Manual of Test and Criteria Section UN 38.3.

Emergency Overview:

Caution: Avoid contact and inhalation the electrolyte contained inside the battery.

SECTION3 INFORMATION ON INGREDIENTS

Product name: Rechargeable Li-ion Battery ICR18650 3.7V 2000mAh 7.4Wh

Ingredient	Concentration	CAS No.	EC No.
Lithium cobaltate	28.3%	12190-79-3	235-362-0
Graphite	17.2%	7782-42-5	231-955-3
Lithium hexafluorophosphate	1.3%	21324-40-3	244-334-7
Ethylene carbonate	3.4%	96-49-1	202-510-0
Diethyl carbonate	4.7%	105-58-8	203-311-1
Dimethyl carbonate	3.8%	616-38-6	210-478-4
Polypropylene	2%	9003-07-0	618-352-4
Steel	31.1%	7439-89-6	231-096-4
Copper	5.7%	7440-50-8	231-159-6
Aluminum	2.5%	7429-90-5	231-072-3

SECTION4 FIRST-AID MEASURES

Skin Exposure:

If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water.

Eye Exposure:

In case of the internal battery materials in contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Inhalation Exposure:

If inhaled the internal materials of battery, remove immediately to fresh air and seek medical attention.

Oral Exposure:

If swallowed the internal materials of battery, do not induce vomiting. Seek immediate medical attention.

SECTION5 FIRE FIGHTING MEASURES

Extinguishing Media:

Suitable: Dry chemical, Sandy soil, Carbon dioxide or appropriate foam.

Firefighting:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazards: Emit toxic fumes under fire conditions.

SECTION6 ACCIDENTAL RELEASE MEASURES

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.

SECTION7 HANDLING AND STORAGE

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.

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 lead to short circuits. Materials to Avoid: Strong oxidizing agents, Corrosives.

SECTION8 EXPOSURE CONTROL/PPE**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.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance: Blue cylinder plastics film shell

Odor: Odorless

Melting Point/°C: >300°C

Solubility: Partial soluble in water

SECTION10 STABILITY AND REACTIVITY**Stability:**

Stable under normal temperatures and pressures.

Conditions to Avoid:

Avoid exposure to heat and open flame. Avoid mechanical or electrical abuse. Prevent short circuits.

Prevent movement which could lead to short circuits.

Materials to Avoid:

Strong oxidizing agents, Corrosives.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

Metal oxides, CO, CO₂.

SECTION11 TOXICOLOGICAL INFORMATION**Toxicity Data:**

Not available.

Irritation Data:

The internal battery materials may cause irritation to eyes and skin.

SECTION12 ECOLOGICAL INFORMATION

No data available.

SECTION13 DISPOSAL CONSIDERATION**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.

SECTION14 TRANSPORT INFORMATION

Lithium battery contained in the equipment during transport:

Shipping Name: not relevant

Hazard Class: not relevant

UN Number: not relevant

Packing Group: not relevant.

The product shall meet the General Requirements and section II of Packaging Instruction 967 (IATA DGR).

The product is not restricted to IMO IMDG Code according to special provision 188.

SECTION15 REGULATORY INFORMATION

ICAO:

1. Unless be exempted according to ICAO TI, the lithium ion cell/batteries (UN 3480, PI 965) and lithium metal cell/batteries (UN 3090, PI 968) are forbidden for carriage on passenger aircraft.
2. Unless be approved according to ICAO TI, Lithium ion cells/batteries (UN 3480, PI 965) must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity.
3. A shipper is not permitted to offer for transport more than one (1) package prepared according to Section II of PI 965 and PI 968 in any single consignment. Not more than one (1) package prepared in accordance with Section II of PI 965 and PI 968 may be placed into an overpack.
4. Packages prepared according to Section II of PI 965 and PI 968 must be offered to the operator separately from other cargo and must not be loaded into a unit load device (ULD) before being offered to the operator.

SECTION16 OTHER INFORMATION

Date:

2017-11-20

Department:

Shanghai Research Institute of Chemical Industry Testing Centre
Tel (Fax) :8621-52815377/52800971/52807275/52811034/52569800

Revision:

0

Other Information:

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