



中国认可
检验
INSPECTION
CNAS IB0071



NO.2620060065

安全技术说明书

(SDS)

中文名称: 锂离子电池 Li-18650-24V-10Ah-240.0Wh

英文名称: Lithium-ion Battery Li-18650-24V-10Ah-240.0Wh

生效日期: 2020年06月15日

编制人: 刘琳琳

审核人: 董学胜

批准人: 张小波

上海化工院检测有限公司



声 明

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地址：上海市光复西路 2779 号接待大厅

Address: Reception Hall, Shanghai Research Institute of Chemical Industry Co., Ltd,
No.2779 West Guangfu Road, Shanghai, China

邮政编码(Post Code): 200062

电话(Tel): (021) 31015134

网址 (web site): www.ghs.cn

电子信箱(E-mail): sds@ghs.cn

永康飞客电子科技有限公司

安全技术说明书

SDS

锂离子电池 Li-18650-24V-10Ah-240.0Wh 24V 10Ah 240.0Wh

第一部分 化学品及企业标识

中文名称: 锂离子电池 Li-18650-24V-10Ah-240.0Wh 24V 10Ah 240.0Wh
 英文名称: Lithium-ion Battery Li-18650-24V-10Ah-240.0Wh 24V 10Ah 240.0Wh
 企业名称: 永康飞客电子科技有限公司
 地址: 浙江省金华市永康市芝英镇工业功能分区群帮路13号二楼
 邮编: 321300
 E-mail: 1356727270@qq.com
 传真号码: +86-579-89291785
 企业应急电话: +86-579-89291786
 技术说明书编码: 2620060065
 生效日期: 2020年06月15日

第二部分 危险性概述

危险性类别: 9类, 杂项。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: 锂离子电池 Li-18650-24V-10Ah-240.0Wh 24V 10Ah 240.0Wh

成份	含量	CAS NO.	EC NO.
三元锂镍钴锰氧化物	44.75%	/	/
石墨	23.08%	7782-42-5	231-955-3
六氟磷酸锂	14.29%	21324-40-3	244-334-7
铜	10.41%	7440-50-8	231-159-6
铝	4.57%	7429-90-5	231-072-3
丁苯橡胶	1.00%	9003-55-8	618-370-2
聚偏氟乙烯	0.78%	24937-79-9	607-458-6
镍	0.76%	7440-02-0	231-111-4



羧甲基纤维素

0.36%

9000-11-7

618-326-2

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:** 黑色塑胶外壳
- 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

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。

锂电池单独运输:

IATA DGR (61版):

运输名称: 锂离子电池组
UN编号: UN3480
危险性类别: 9

空运中本品应满足IATA DGR包装说明965的基本要求和第IA部分的规定。

根据IATA DGR (61版)的3.9.2.6.1(g), 2003年06月30日之后生产的锂电池或电池组的制造商和出厂后的销售商应提供联合国《试验和标准手册》第III部分第38.3小节第38.3.5段规定的UN38.3试验概要。

IMO IMDG CODE (2018版):

运输名称: 锂离子电池组
UN编号: UN3480
危险性类别: 9

EmS编号: F-A, S-I

根据IMDG Code (2018版)的2.9.4.7, 锂电池或电池组的制造商和出厂后的销售商应提供联合国《试验和标准手册》第III部分第38.3小节第38.3.5段规定的UN38.3试验概要。

锂电池内置于电动轮椅车
W5517中运输:

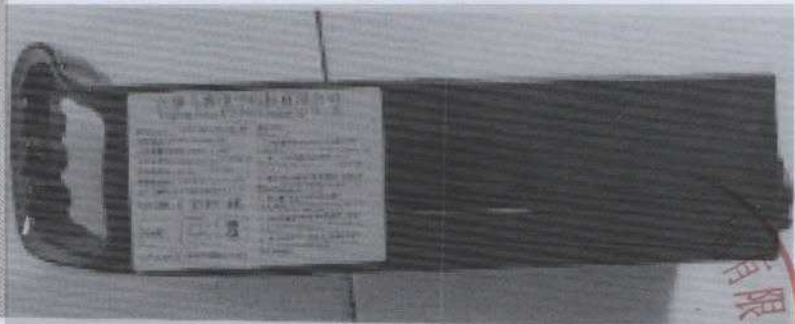
- IATA DGR (61版):** 运输名称: 电池供电车辆
UN 编号: UN3171
危险性类别: 9
根据IATA DGR (61版)的3.9.2.6.1(g), 2003年06月30日之后生产的锂电池或电池组的制造商和出厂后的销售商应提供联合国《试验和标准手册》第III部分第38.3小节第38.3.5段规定的UN38.3试验概要。
- IMO IMDG CODE (2018版):** 运输名称: 电池供电车辆
UN 编号: UN3171
危险性类别: 9
EmS No.: F-A, S-I
根据IMDG Code(2018版)的2.9.4.7, 锂电池或电池组的制造商和出厂后的销售商应提供联合国《试验和标准手册》第III部分第38.3小节第38.3.5段规定的UN38.3试验概要。

第十五部分 法规信息

- 国内法规:** 锂电池组单独运输:
本品在JT/T 617-2018《危险货物道路运输规则》中的联合国编号为: 3480, 中文名称和描述: 锂离子电池。
本品在GB 12268-2012《危险货物物品名表》中联合国编号为: 3480, 名称和说明: 锂离子电池组, 包装类别: II。本品在《铁路危险货物物品名表》(2009版)中的铁危编号为: 91013, 品名: 锂电池组。
锂电池组内置于电动轮椅车W5517中运输:
本品在JT/T 617-2018《危险货物道路运输规则》中的联合国编号为: 3171, 中文名称和描述: 电池驱动的车辆。
本品在GB 12268-2012《危险货物物品名表》中联合国编号为3171, 名称和说明: 电池供电车辆。
- 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箱。

第十六部分 其他信息

- 填表时间:** 2020年06月15日
- 填表部门:** 上海化工院检测有限公司
电话(传真): +86-21-52815377/31765555
- 修改信息:** 第0次修订
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永康飞客电子科技有限公司
Yongkang Feike Electronic Technology Co., Ltd.

地址: 浙江省永康市经济开发区
电话: 0579-87111111
网址: www.ykfeike.com

ISO9001 MSDS CE

MSDS

型号 Model: Li 18650 24V 10Ah 240.0Wh
 标称电压 Standard voltage: 24V
 标称容量 Nominal capacity: 10Ah

有限公司





中国认可
检验
INSPECTION
CNAS IB0071



NO.2620060065

SAFETY DATA SHEET

Product Name: Lithium-ion Battery
Li-18650-24V-10Ah-240.0Wh 24V 10Ah 240.0Wh

Effective Date: 2020-06-15

Compiler: Liu Linlin

Checker: Dongxuesheng

Approver: Zhangxiuqin



Shanghai Research Institute of Chemical Industry Testing Co., Ltd.



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网址 (web site): www.ghs.cn

电子信箱(E-mail): sds@ghs.cn

YongKang Fotec Electronic Technology Co.,LTD

SAFETY DATA SHEET

Lithium-ion Battery Li-18650-24V-10Ah-240.0Wh 24V 10Ah 240.0Wh

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Lithium-ion Battery Li-18650-24V-10Ah-240.0Wh 24V 10Ah 240.0Wh
 Company: YongKang Fotec Electronic Technology Co.,LTD
 Address: 2F, No.13, Qunbang Road, Industry Sectorization, Zhiyin Town, YongKang City, Jinhua City, Zhejiang, 21300, P.R.China
 Email: 1356727270@qq.com
 Fax: +86-579-89291785
 Emergency Phone: +86-579-89291786
 SDS Number: 2620060065
 Effective Date: 2020-06-15

SECTION2 HAZARDS IDENTIFICATION

Hazards Identification:

Class 9, miscellaneous. 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: Lithium-ion Battery Li-18650-24V-10Ah-240.0Wh 24V 10Ah 240.0Wh

Ingredient	Concentration	CAS No.	EC No.
Ternary lithium nickel cobalt manganese oxide (Li(NiCoMn) ₂ O ₂)	44.75%	/	/
Graphite	23.08%	7782-42-5	231-955-3
Lithium Hexafluorophosphate	14.29%	21324-40-3	244-334-7
Copper (Cu)	10.41%	7440-50-8	231-159-6
Aluminum (Al)	4.57%	7429-90-5	231-072-3
Styrene-Butadiene Rubber (SBR)	1.00%	9003-55-8	618-370-2
Polyvinylidene Fluoride (PVDF)	0.78%	24937-79-9	607-458-6
Nickel (Ni)	0.76%	7440-02-0	231-111-4
Carboxymethylcellulose	0.36%	9000-11-7	618-326-2

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: Black plastics cement 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

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

Only Lithium-ion
Battery during
transport:

IATA DGR (61th
Edition) : Proper Shipping Name: Lithium ion batteries
UN Number: UN3480
Hazard Class: 9

The product shall meet the General Requirements and section IA of Packaging Instruction 965. According to 3.9.2.6.1(g) of IATA DGR (61th Edition), Manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

IMO IMDG
Code(2018
Edition): Proper Shipping Name: Lithium ion batteries
UN Number: UN3480
Hazard Class: 9
EmS No.: F-A, S-I

According to 2.9.4.7 of IMDG Code(2018 Edition), Manufacturers and subsequent distributors of cells or batteries manufactured shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

Lithium-ion
Battery contained
in the POWER
WHEELCHAIR W5517
during transport:

IATA DGR (61th
Edition) : Proper Shipping Name: Battery powered vehicle
UN Number: UN3171
Hazard Class: 9

According to 3.9.2.6.1(g) of IATA DGR (61th Edition), Manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.

IMO IMDG
Code(2018
Edition): Proper Shipping Name: Battery powered vehicle
UN Number: UN3171
Hazard Class: 9
EmS No.: F-A, S-I

According to 2.9.4.7 of IMDG Code(2018 Edition), Manufacturers and subsequent distributors of cells or batteries manufactured shall make available the test summary as specified in the Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

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:

2020-06-15

Department:

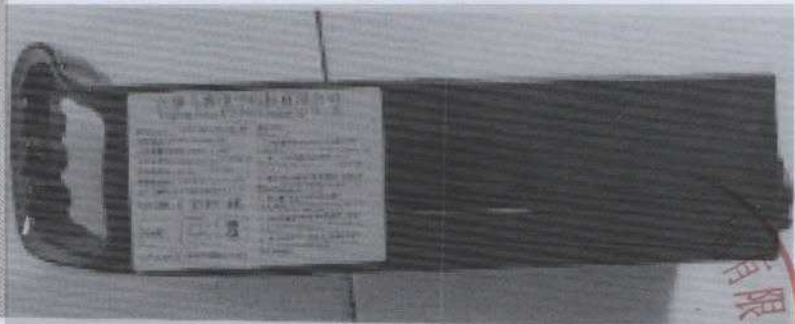
Shanghai Research Institute of Chemical Industry Testing Co., Ltd.
Tel(Fax) :+86-21-52815377/31765555

Revision:

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Other Information:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising from using the above information.



永康飞客电子科技有限公司
Jingyang Feikong Electronic Technology Co., Ltd.

永康市经济开发区... 永康市经济开发区... 永康市经济开发区...

ISO9001 MSDS CE

MSDS

型号 Model: Li 18650 24V 10Ah 240.0Wh
 标称电压 Standard voltage: 24V
 标称容量 Nominal capacity: 10Ah

有限公司

