



MSDS Report

Prepared for: 申请商:	HUBEI SHUOYUE ELECTRONIC TECHNOLOGY CO., LTD. 湖北硕悦电子科技有限公司 No.15, People's South Road, Nancheng, Zaoyang City 枣阳市南城人民南路 15 号		
Product Name: 产品名称:	Li-ion Polymer Battery 锂离子聚合物电池		
Model 型号:	602030		
Nominal Voltage: 标称电压:	3.7V		
Rated Capacity: 额定容量:	300mAh, 1.11Wh		
Weight 重量:	6.7g		
Dimension 尺寸:	(32.0×19.9×6.0)mm		
Prepared by: 编制单位:	NRCC (Shenzhen) Safety Technology Co., Ltd. 诺诚(深圳)安全科技有限公司 (Testing and Inspection Body affiliated to the National Registration Center for Chemicals, MEM) (应急管理部化学品登记中心旗下检测检验机构) Building A, No.2, Tengfeng 5th Road, Fuyong, Bao'an District, Shenzhen 深圳市宝安区福永街道腾丰五路 2 号 A 栋 文 A A		
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Material Safety Data Sheet

材料安全技术说明书

Section 1 - Product & Company Identification

第一部分 产品及企业标识

Product Name: Li-ion Polymer Battery

产品名称: 锂离子聚合物电池

Manufacturer: HUBEI SHUOYUE ELECTRONIC TECHNOLOGY CO., LTD.

制造商: 湖北硕悦电子科技有限公司

Address: No.15, People's South Road, Nancheng, Zaoyang City

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E-mail 邮箱:/

Item Code 项目号: 23124018043-29

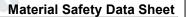
Section 2 - Hazard Identification

第二部分 危险性概述

Hazard	Not dangerous with normal use. Do not dismantle, open or shred the battery		
Description	ingredients contained within or their ingredients products could be harmful.		
危险性描述	正常使用没有危险,不能拆解、打开或分解电池,里面的材料或成分是有害的。		
Primary Route(s)			
of Exposure Inhalation,Ingestion, Skin contact and Eye contact.			
接触途径	吸入、食入、皮肤接触、眼睛接触。		
Potential Health Inhalation: Vapors or mists from a ruptured battery may cause respiratory irr			

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Effects

潜在健康影响

吸入:破裂的电池散发出来的气雾会引起呼吸道刺激。

Ingestion: The battery ingredients contained within or their ingredients products can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. 食入: 电池的组成成分或原料可以导致嘴,食道和胃肠道的严重化学烧伤。

Skin: Skin contact with contents of an open battery can cause severe irritation or

Skin: Skin contact with contents of an open battery can cause severe irritation or burns to the skin.

皮肤:皮肤接触到电池的内部化学材料可能会导致严重的刺激或烧伤皮肤。

Eye: Eye contact with contents of an open battery can cause severe irritation or burns to the eye.

眼睛:眼睛接触到电池的内部化学材料可能会导致严重的刺激或烧伤眼睛。

Section 3 – Composition/Information on Ingredients

第三部分 成分/组成的信息

Chemical Name 化学名称	Concentration or concentration ranges (%) 浓度或浓度范围(%)	CAS Number CAS 号(化学文摘索引登记号)
LiCoO2 钴酸锂	43	12190-79-3
Graphite 石墨	19.9	7782-42-5
Copper 铜	8	7440-50-8
Aluminum 铝	5	7429-90-5
Carboxymethyl cellulose 羧甲基纤维素	0.3	9000-11-7
Polyvinylidene fluoride resin 聚偏 氟乙烯树脂	0.6	24937-79-9
Dimethyl carbonate 碳酸二甲酯	6	616-38-6
Polyethylene 聚乙烯	0.3	9002-88-4
Phosphate(1-), hexafluoro-, lithium 六氟磷酸锂	2	21324-40-3
Other 其他	/15	1

Note: CAS number is Chemical Abstract Service Registry Number.

注意: CAS 号是化学文摘服务注册号。

N/A=Not apply.

N/A = 不适用。

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Section 4 - First Aid Measures

第四部分 急救措施

Inhalation 吸入	Remove source of contamination or move victim to fresh air. Obtain medical advice. 移除污染源或者将受害者移至新鲜空气处。寻求医生建议。
Ingestion 食入	Please rinse mouth thoroughly with water. Induce vomiting under the guidance of professional personage. Please seek medical treatment in time. 立即用清水漱口,在专业人士的指导下催吐,速就医。
Skin contact 皮肤接触	Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid. 脱下已污染衣服,用大量的水冲洗至少 15 分钟,速就医。
Eye contact 眼睛接触	Irrigate with flowing water for 15 minutes. If irritation persists, consult a physician. 用流动水冲洗 15 分钟,如刺激持续发生,请求助于医生。

Section 5 - Fire Fighting Measures

第五部分 消防措施

Characteristics of Hazard 危险特性	Toxic fumes, gases or vapors may evolve on burning. 火灾时可释放有害浓烟、气体或者蒸汽。
Hazardous Combustion Products 燃烧产生的危险物 品	Carbon monoxide, carbon dioxide, lithium oxide fumes and so on. 一氧化碳,二氧化碳,锂氧化物烟气等。
Fire-extinguishing Methods and Extinguishing Media 灭火方法及灭火剂	Please use water, dry sand and other proper fire extinguishing media. 请使用水,干燥沙等合适的灭火介质。
Attention in Fire-extinguishing 灭火注意事项	The firemen should put on antigas masks and full fire-fighting suits. 消防人员须佩戴防毒面具、穿全身消防服。

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Section 6 - Accidental Release Measures

第六部分 泄漏应急措施

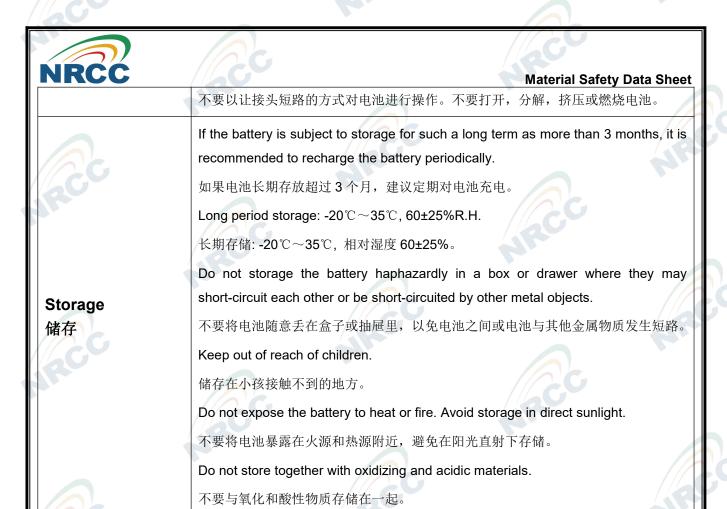
Personal	
Precautions,	
protective	Restrict access to area until completion of clean-up. Do not touch the spilled
equipment, and	material. Wear adequate personal protective equipment as indicated in Section 8.
emergency	限制区域,直到完成清理工作。请勿触摸泄漏的材料。穿戴适当的个人防护设备,
procedures	如第8部分所示。
个人预防措施、防护	
装备和应急程序	
Environmental	Prevent material from contaminating soil and from entering sewers or waterways.
Precautions	
环境保护措施	防止物质污染土壤和进入下水道或水道。
Methods and	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth.
materials for	Clean up spills immediately.
Containment	
方法和材料控制	出于安全,阻止泄漏,可以用干砂或沙土来遏制液体泄露,立即清理泄漏。
	Absorb spilled material with an inert absorbent (dry sand or earth).
	用惰性吸收剂(干砂或沙土)吸收溢出的材料。
	Scoop contaminated absorbent into an acceptable waste container.
Methods and	污染物转移到可吸收废物的容器。
materials for	Collect all contaminated absorbent and dispose of according to directions in
cleaning up	Section 13.
青理的方法和材料	收集所有受污染的吸收剂和根据第 13 部分的指令处置。
	Scrub the area with detergent and water; collect all contaminated wash water for
	proper disposal. 用洗涤剂和水清洁污染区域,收集所有受污染的洗涤水进行适当
	处置。

Section 7 - Handling and Storage

第七部分 操作处置与储存

Handling	Don't handing the batteries in manner that allows terminals to short circuit. Do not
操作	open, disassemble, crush or burn battery.

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Section 8 - Exposure Controls/Personal Protection

第八部分 接触控制/个人防护

Engineering Controls 工程控制	No engineering controls are required for handling batteries that have not been damaged. Personal protective equipments for damaged batteries should include chemical resistant gloves and safety glasses. 操作未破损的电池,没有工程控制要求。对于破损的电池,个人防护用品应包括化学品防护手套和安全眼镜。
Personal Protective Equipment 个人防护设备	Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use. Not necessary under conditions of normal use. 呼吸保护: 当电池排气阀打开时,应尽量使通风设备开至最大,避免将打开排气阀的电芯局限在某一狭窄空间内。正常操作条件下,呼吸保护是不必要的。正常使用条件下不必考虑。 Protective Gloves: Not necessary under conditions of normal use.
	防护手套: 正常使用条件下不必考虑。

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

其他防护服装或设备:正常使用条件下不必考虑。

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

当电池排气阀打开时,应做好个人防护:呼吸防护,防护手套,防护服装和有护边的安全玻璃罩都是要准备的。

Section 9 - Physical and Chemical Properties

第九部分 理化特性

		Form: Solid	R
		形态: 固体	La.
	Physical State	Color: Silver	
	物理状态	颜色: 银色	
		Odour: Odorless	
		气味: 无气味	
1	Change in		//2G
	condition		
	变化条件:		La.
	pH, with indication		
	of the	Not applicable.	
	concentration	不适用。	
	pH,有浓度指示	All Control of the Co	
1	Melting		//2G
	point/freezing	Not applicable.	100
	point	不适用。	B.
	熔点/凝固点		
	Boiling Point,	Not applicable.	
	initial boiling point	Not applicable. 不适用。	
	沸点,初沸点	小坦用。 	
3	Flash Point	Not applicable.	(CG
	闪点	不适用。	
	Upper/lower	Not applicable.	H
	flammability or	不适用。	
	explosive limits	17足/11。	

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NRCC	40	Materia	l Safety Data Sheet
上/下燃烧或爆炸限			
值	/		
Vapor Pressure	Not applicable.	20	
蒸汽压	不适用。		6.
Vapor Density:	Matanakashi		
(Air = 1)	Not applicable.		
蒸汽密度: (空气= 1)	不适用。		
Density/relative	Not applicable		
density	Not applicable.		
密度/相对密度	不适用。		//a
Solubility in Water	Insoluble.		B
水溶性	不能溶解。		
n-octanol/water	6	// a G	
partition	Not applicable.		
coefficient	不适用。		
正辛醇/水分配系数			
Auto-ignition	Not applicable.	20	
temperature	不适用。		Θ_{I}
自燃温度	小迫用。 		
Decomposition	Not applicable		
temperature	Not applicable. 不适用。		
分解温度	小坦用。		
Odout threshold	Not applicable.		
溴阈	不适用。	20	//_
Evaporation rate	Not applicable.	30	4/2
蒸发速率	不适用。		
Flammability (soil,	Not applicable.		G
gas)	不适用。		
易燃性(土壤,气体)	小坦用。		
Viscosity	Not applicable.		
粘度	不适用。		///

Section 10 - Stability and Reactivity

第十部分 稳定性和反应性

Stability	Stable under normal temperatures and pressures.
稳定性	Stable and Herman temperatures and procedures.

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NRCC	Material Safety Data Sheet	
	常温常压下稳定。	
Conditions to Avoid 应避免的条件	Heat above 70°C or Incinerate, Deform, Mutilate, Crush, Disassemble, Overcharge, Short circuit, Expose over a long period to humid conditions. 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。	
Hazardous		
Decomposition	Toxic Fumes, and may form peroxides.	
Products	有毒烟雾,并可能形成过氧化物。	
危害分解物		
Possibility of	If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis	
Hazardous	halogenated hydrocarbons.	
Reaction		
危险反应的可能性	如果发生泄露,避免与强氧化剂,无机酸,强碱,卤代烃接触。	

Section 11 - Toxicological Information

第十一部分 毒理学信息

Irritation 刺激	In the event of exposure to internal contents, vapor fumes may be very irritating to the eyes and skin. 内部物质暴露的情况下,蒸汽烟雾可能对眼睛和皮肤产生刺激性。
Sensitization	Not applicable.
致敏	不适用。
Reproductive Toxicity 再生毒性	Not applicable. 不适用。
Toxicologically	160
Synergistic	Not applicable.
Materials	不适用。
协同材料毒理学	

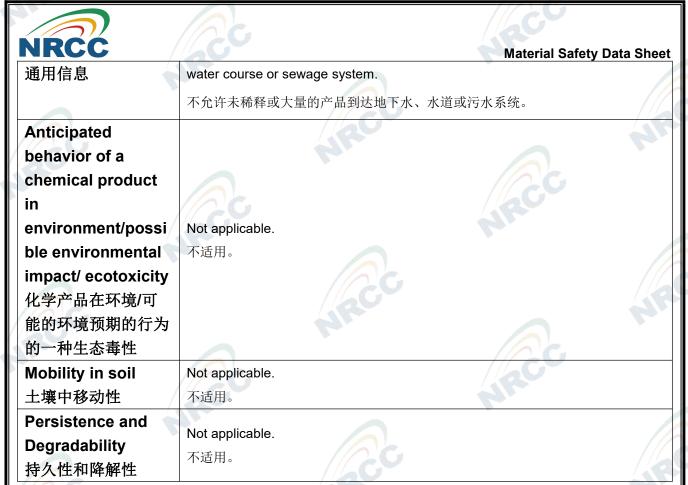
Section 12 - Ecological Information

第十二部分 生态学信息

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Section 13 - Disposal Considerations

第十三部分 废弃处置

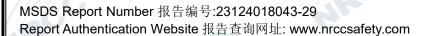
Waste Treatment 废弃处置方法	Recycle or dispose of in accordance with government, state & local regulations. 建议遵照国家和地方法规处置或再利用。
Attention for	Deserted batteries couldn't be treated as ordinary trash. Couldn't be thrown into fire or placed in high temperature. Couldn't be dissected, pierced, crushed or
Waste Treatment 废弃注意事项	treated similarly. Best way is recycling. 废电池不能被当做普通垃圾。不能扔进火中或置于高温下。不能解体,刺穿,破
	碎或类似的处理。最好的办法是回收利用。

Section 14 - Transport Information

第十四部分 运输信息

This report applies to by sea, by air and by land;

本报告适用于海运,空运和陆运;







The Li-ion Polymer Battery(model:602030) tested according to the requirements of the United Nations *Manual of Tests and Criteria*, Part III, sub-section 38.3.

该锂离子聚合物电池(型号: 602030)经过测试符合联合国《试验和标准手册》第三部分 38.3 小节相应测试要求。

The Li-ion Polymer Battery was protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to short circuit.

该锂离子聚合物电池做了防短路保护。包括防止与同一封装内的导电材料接触可能导致的短路。

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking.

包装应足以避免在运输,处理和堆放期间的机械损坏。

The package must be handled with care and that a flammability hazard exists if the package is damaged.

包装必须小心处理,如果包装损坏,存在易燃危险。

The Rechargeable Lithium Ion Polymer Battery can be shipped by air in according to Section IB of PACKING INSTRUCTION 965, or Section II of PACKING INSTRUCTION 966~967 of the 2024 IATA *Dangerous Goods regulations 65th Edition*.

该可充电锂离子聚合物电池可以根据 2024 年 IATA 危险物品规则第 65 版包装指令 965 第 IB 部分或包装指令 966~967 第 II 部分运输。

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

关于运输,引用和考虑了以下法规:

- The International Civil Aviation Organization (ICAO) Technical Instructions
- 国际民用航空组织(ICAO)技术细则
- The International Air transport Association (IATA) Dangerous Goods Regulations
- 国际航空运输协会(IATA) 危险物品规则

UN number of lithium battery: UN3480 or UN3481;

锂电池的 UN 编号: UN3480 或 UN3481;

UN Proper shipping name/Description (technical name): Lithium Ion Batteries or Lithium Ion





Batteries contained in equipment or Lithium Ion Batteries packed with equipment;

UN 合适的运输名称/描述(技术名称): 锂离子电池, 锂离子电池内置于设备中或锂离子电池与设备包装在一起;

UN Classification (Transport hazard class): Class 9 (PI965 Section IB) or N/A (PI966~967 Section II).

UN 分类(运输危险类别): 9 类危险品(包装指令 965 第 IB 部分)或者 不适用(包装指令 966~967 第 II 部分)。

- International Maritime Dangerous Goods (IMDG) Code
- -《国际海运危险货物(IMDG)规则》

UN number of lithium battery: UN3480 or UN3481;

锂电池的 UN 编号: UN3480 或 UN3481;

UN Proper shipping name/Description (technical name): Lithium Ion Batteries or Lithium Ion Batteries contained in equipment or Lithium Ion Batteries packed with equipment;

UN 合适的运输名称/描述(技术名称): 锂离子电池, 锂离子电池内置于设备中或锂离子电池与设备包装在一起;

UN Classification (Transport hazard class): N/A

UN 分类(运输危险类别): 不适用

Marine pollutant(Y/N): N

海洋污染物(Y/N):N

The battery is not restricted according to IMO IMDG Code (inc Amdt 41-22).

海运按照 IMO IMDG Code (inc Amdt 41-22) 可按普通货物条件办理。

Need to meet the Special Provision: *International maritime dangerous goods code (IMDG)* 188, 230, 310, 348, 360, 376, 377, 384.

需要符合这些特殊条款: 国际海运危险货物规则(IMDG)188, 230, 310, 348, 360, 376, 377, 384。

- JT/T 617-2018 Regulations concerning road transportation of dangerous goods
- JT/T 617-2018《危险货物道路运输规则》

UN number of lithium battery: UN3480 or UN3481;

锂电池的 UN 编号: UN3480 或 UN3481;

UN Proper shipping name/Description (technical name): Lithium Ion Batteries or Lithium Ion Batteries contained in equipment or Lithium Ion Batteries packed with equipment;







UN 合适的运输名称/描述(技术名称): 锂离子电池, 锂离子电池内置于设备中或锂离子电池与设备包装在一起;

UN Classification (Transport hazard class): N/A

UN 分类(运输危险类别): 不适用

The battery is not restricted according to *JT/T* 617.2-2018 Regulations concerning road transportation of dangerous goods - Part 2:Classification.

道路按照 JT/T 617.2-2018《危险货物道路运输规则 第 2 部分:分类》可按普通货物条件办理。

Need to meet the Special Provision: *Regulations concerning road transportation of dangerous goods* 188, 230, 310, 348, 360, 376, 377, 636.

需要符合这些特殊条款:《危险货物道路运输规则》188,230,310,348,360,376,377,636。

Section 15 - Regulatory Information

第十五部分 法规信息

Dangerous Goods Regulations

《危险物品规则》

Recommendations on the Transport of Dangerous Goods Model Regulations

《关于危险货物运输的建议书 规章范本》

International Maritime Dangerous Goods Code

《国际海运危险货物规则》

Regulations Concerning Road Transportation of Dangerous Goods

《危险货物道路运输规则》

Technical Instructions for the Safe Transport of Dangerous Goods

《危险货物安全运输技术指南》

Classification and Code of Dangerous Goods

《危险货物分类与代码》

Occupational Safety and Health Act (OSHA)

《职业安全与健康法案》(OSHA)

Toxic Substance Control Act (TSCA)

《有毒物质控制法》 (TSCA)

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Consumer Product Safety Act (CPSA)

《消费者产品安全法案》(CPSA)

Federal Environmental Pollution Control Act (FEPCA)

《联邦环境污染控制法》(FEPCA)

The Oil Pollution Act (OPA)

《石油污染法》(OPA)

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

《超级基金修正案和再授权法案 TitleIII (302/311/312/313)》(SARA)

Resource Conservation and Recovery Act (RCRA)

《资源保护和恢复法案》(RCRA)

Safety Drinking Water Act (CWA)

《安全饮用水法》(CWA)

California Proposition 65

《加州 65 号提案》

Code of Federal Regulations (CFR)

《联邦条例》(CFR)

In accordance with all Federal, State and local laws.

符合所有联邦、州和地方法律。

Section 16 - Other Information

第十六部分 其他信息

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Material Safety Data Sheet

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