

材料安全数据表

Material Safety Data Sheet

报告编号(Report No.): 221216-01

样品名称(Sample Name): 可充电锂离子电池组

Rechargeable Lithium-ion Battery Pack

型号(Model/Type): HM-7250DC (7.2V 4.8Ah 34.56Wh)

江西迪比科股份有限公司

JIANGXI DBK CO., LTD.

1. 化学品名称和制造商信息 Chemical Product & Company Information	
产品名称 Product Name	可充电锂离子电池组 Rechargeable Li-ion Battery Pack
型号规格 Model/Type	HM-7250DC (7.2V 4.8Ah 34.56Wh)
制造商 Manufacturer	江西迪比科股份有限公司 JIANGXI DBK CO., LTD.
制造商地址 Manufacturer Address	江西省抚州市金巢经济开发区高新技术产业园区内 FUZHOU HIGH TECH INDUSTRIAL PARK, FUZHOU CITY, JIANGXI PROVINCE, CHINA
应急电话 Emergency Telephone	+86-0794-7808888
试验 Tested by	 日期 (Date) : 2022/12/16
审核 Checked by	日期 (Date) : 2022/12/16
批准 Approved by	日期 (Date) : 2022/12/16

2. 危险性概述 Hazards Identification	
危险性类别 Hazard category	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。 Passed the UN38.3 test of the Manual of Recommendations, Tests and Standards on the Transport of Dangerous Goods.
侵入途径 Invasive route	眼睛和皮肤接触、吸入电池内的物质。 Contact between eyes and skin, inhaling substances in the battery.
健康危害 health hazard	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。 There is no detailed toxicological study. Avoid direct contact with the substances in the battery and prevent inhalation.

3.1 电池组成成分/组成信息		
Composition/composition information of battery pack		
化学成份 Chemical composition	CAS 号 CAS No.	重量百分比 In % by weight
电芯 Cell	如下表 See table below	82.22
外壳 Plastic Case	9003-56-9, 25037-45-0	14.95
镍片 Nickel sheet	12597-68-1	0.11
青稞纸 Barley paper	NA	0.28
海绵垫 EVA foam	24937-78-8	0.11
黄胶 Yellow adhesive	9003-35-4	0.11
保护板 PCB	26265-08-7	1.82
胶水 Glue	7631-86-9	0.17
热缩套管 HS Tube	9002-88-4	0.05
硅胶线材 Silicone Wire	68037-87-6	0.11
无铅锡线 Solder Wire	7440-31-5	0.05
玛拉胶 Tape	25038-59-9	0.02

3.2 电芯成分/组成信息

Cell composition/composition information

化学成份 Chemical composition	CAS 号 CAS No.	重量百分比 In % by weight
镍 Nickel	7440-02-0	34.67
铁 Iron	7439-89-6	18.36
碳 Carbon	7782-42-5	17.48
铜 Copper	7440-50-8	9.0
碳酸二甲酯 Dimethyl carbonate	616-38-6	5.39
铝 Aluminum	7429-90-5	3.72
钴 Cobalt	7440-48-4	3.54
碳酸乙烯酯 Ethylene carbonate	96-49-1	1.90
硅 Silicon	7440-21-3	1.53
六氟磷酸锂 Lithium hexafluorophosphate	21324-40-3	1.46
碳酸甲乙酯 Ethyl methyl carbonate	623-53-0	0.72
锂 Lithium	7439-93-2	0.4

4. 急救措施 First Aid 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 attention.

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 shoes, rinse skin with plenty of water for at least 15 minutes. Get medical attention.

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 area immediately. Use oxygen if available. Get medical attention.

食入: 饮用两杯牛奶或水。如果当事人仍然清醒可以采取催吐的方法, 并且立即就医。

Ingestion: Drink two cups of milk or water. If the victim is still awake, emetic method can be adopted. Seek medical attention immediately.

5. 消防措施 Fire Fighting Measures

燃点: 不适用

Flash Point: N/A.

自燃温度: 不适用

Auto-Ignition Temperature: N/A.

灭火介制: 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: 当电池暴露于过热的环境中时, 安全阀可能会打开。

Unusual Fire and Explosion Hazards: Battery 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.

6. 泄漏应急处理 Accidental Release Measures

为防止电池材料泄漏或释放采取的措施:

如果电池内部材料泄漏, 试验人员应立刻撤离试验区直到烟气消散。将通风设备打开吹散危险性气体。用抹布擦净试验区, 清除溢出的液体, 将泄漏电池放进塑料袋中, 然后放进钢制容器。避免皮肤和眼睛接触或吸入有害气体。

Steps to be taken in case Material is Released or Spilled:

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

废弃物处置方法:

建议将电池完全放电, 消耗电池内部的锂金属, 并且深埋于土壤中。

Waste Disposal Method:

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

7. 操作和储存 Handling and Storage

禁止打开、毁坏或焚烧电池, 因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。

禁止将电池短路、过充、强制放电或扔入火中。禁止挤压刺穿电池或将电池浸入溶液中。

The battery 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.

操作处置和储存中的防范措施

禁止物理或电滥用, 禁止高温储存, 最好将电储存在阴凉、干燥、通风及温度变化较小的环境中。禁止将电池接触加热设备或将电池直接暴露与阳光中。

Precautions to be taken in handling and storing:

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.

其他要注意的防范措施

拆解挤压、直接放入火中或高温条件下, 电池可能发生爆炸和燃烧。禁止短接或将电池正负极错误的安装在设备中。

Other Precautions:

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

8. 接触控制/个人防护 Exposure Controls/Personal Protection

呼吸防护:

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。

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.

通风条件: 正常使用条件下不必考虑。

Ventilation: Not necessary under conditions of normal use.

防护手套: 正常使用条件下不必考虑。

Protective Gloves: Not necessary under conditions of normal use.

其他防护服装或设备: 正常使用条件下不必考虑。

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

电池开阀试验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。

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

9. 物理和化学特性 Physical and Chemical Properties

外形: 矩形体

Appearance: Rectangles

外观: 黑色塑胶外壳

Appearance: Black plastic shell

气味: 泄漏时, 有醚的气味。

Odor: 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.

10. 稳定性和反应活性 Stability and Reactivity

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 to humid conditions for a long period.

应避免的材料: 氧化剂, 碱, 水。

Materials to avoid: Oxidizing 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.

11. 毒理学信息 Toxicological Information

标志及症状: 无, 除非电池破裂。

Signs & symptoms: None, unless battery ruptures.

内部物质暴露的情况下, 蒸汽烟雾可能对眼睛和皮肤的刺激性。

In the event of exposure to internal contents, vapor fumes may be irritating to the eyes and skin.

吸入: 对肺有刺激性。

Inhalation: Lung irritant.

皮肤接触: 对皮肤刺激性。

Skin contact: Skin irritant

眼睛接触: 对眼睛有刺激性。

Eye contact: Eye irritant

食入: 吞下中毒。

Ingestion: Poisoning if swallowed.

下列情况下会危险人员身体健康: 如果与电池内部材料直接接触, 皮肤可能会出现干燥、灼烧等轻微或严重的刺激, 并且损坏靶器官的神经, 肝脏和肾脏。

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

12. 生态学信息 Ecological Information

对哺乳动物的影响: 目前未知。

Mammalian effects: None known at present.

生态毒性: 目前未知。

Eco-toxicity: None known at present.

生物体内积累: 慢慢地生物降解。

Bioaccumulation potential: Slowly Bio-degradable.

环境危害: 目前没有已知的环境危害。

Environmental fate: None known environmental hazards at present.

13. 废弃处置 Disposal Considerations

禁止焚烧或使电池温度超过 70°C，这种滥用可导致泄漏和/或电池爆炸。应按照相应的地方性法规处理。
 Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

14. 运输信息 Transport Information

UN 编号: UN 3480, UN 3481

UN No. :

运输专用名称: 锂离子电池/设备里内含锂离子电池/锂离子电池和设备包装在一起

Proper Shipping Name: Lithium-ion battery/equipment contains lithium-ion battery/lithium-ion battery and equipment are packaged together

包装标志: 第 9 类

Labels for Package: Class 9

国际民间航空组织/国际航空运输协会: ICAO/IATA:	可根据民用航空组织 (ICAO), TI 或国际航空运输协 (IATA), DGR 64 th 包装说明 (PI) 965 Section II/ Section 1B, (PI) 966 Section II 和 (PI) 967 Section II 相关规定进行空运。 Can be shipped by air in accordance with international Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing structions (PI) 965 Section II/Section IB.PI 966 Section II and PI 967 Section II appropriate of IATA DGR 64 th for transportation.
国际海运危险货物规则: IMDG CODE:	《国际海运危险货物规则》(IMDG Code 39-18) 根据特殊规定 188。 《International Maritime Dangerous Goods》Code (IMDG Code 39-18) under Special Provision 188.
国际危险货物道路运输欧洲协定: ADR:	《国际危险货物道路运输欧洲协定》(ADR 2021) 根据特殊规定 188。 《European Agreement concerning the International Carriage of Dangerous Goods by Road》(ADR 2021) under Special Provision 188.
国际危险货物铁路运输欧洲协定: RID:	《国际危险货物铁路运输欧洲协定》(ADR 2021) 根据特殊规定 188。 《Regulations concerning the International Carriage of Dangerous Goods by Rail》(ADR 2021) under Special Provision 188.
当符合上述规定时, 可不被申报为第 9 类危险品运输 May be shipped without being declared as Class 9 dangerous goods. when conform to the requirements above.	
危险品规例规定运输前每一个电池设计须通过联合国试验和标准手册 38.3 节所载的测试。 The dangerous goods regulations require that each battery design be subject to tests contained in Section 38.3 of the UN Manual of Tests and Criteria prior to being offered for transport.	

15. 法规信息
Regulatory Information

法规信息

Regulatory information

《危险物品规则》

《Dangerous Goods Regulations》

《对危险货物运输的有关规定的建议》

《Recommendation on the Transport of Dangerous Goods Model Regulations》

《国际海运危险货物规则》

《International Maritime Dangerous Goods》

《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 Title III(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 according with all Federal, State and local laws.

16. 其他信息 Other Information

参考文献: 中华人民共和国国家标准(GB/T 6483-2008)化学品安全技术说明书内容和项目顺序、中华人民共和国国家标准(GB/T 17519-2013)化学品安全技术说明书编写指南。

Reference: National standard of People's Republic of China (GB/T 6483-2008) Safety data sheet for chemical products-Content and order of sections, National standard of People's Republic of China (GB/T 17519-2013) Guidance on the compilation of safety data sheet for chemical products.

上述信息是根据我们目前的知识状况撰写, 我们尽力追求其准确性。然而, 针对该信息, 我们不作任何适销性的承诺, 亦不作其他任何明示的或暗示的承诺。我们对该信息的使用不负任何责任, 使用者请根据应用需求, 自行判断其可用性。用户应仔细阅读此文件, 并按照正确的方法使用电池。如因电池使用不当造成的损害或损失, 江西迪比科股份有限公司不承担任何责任。

The information above is believed to be accurate and represents the best information currently available to us. However, 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 investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims losses, or damages of any third party or for lost profits or any special indirect, incidental, consequential or exemplar damages, howsoever arising, even if the company has been advised of the possibility of such damages.

Users should read this file carefully, and use the batteries in correct method. JIANGXI DBK CO., LTD. doesn't assume responsibility for any damage or loss because of misuse of batteries.

报告结束

--End of Report--