



# 材料安全数据表

## Material Safety Data Sheet

报告编号 Report No.: S03A23080672M00101

样品名称: 碱性锌锰扣式层叠电池  
Sample Name: Alkaline Zinc and Manganese buckle type laminate battery

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样品型号: AKYGA 23A  
Sample Model:

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委托单位: Ropla Elektronik Sp. z o.o.  
Applicant:

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签发日期: 2023-08-24  
Issue Date:

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广东储能检测技术有限公司  
报告专用章  
Special Seal for Report  
Guangdong ESTL Technology Co., Ltd.

第一部分 产品和厂商信息 Section 1 Identification of the product and supplier	
样品名称 Sample Name	碱性锌锰扣式层叠电池 Alkaline Zinc and Manganese buckle type laminate battery
样品型号 Sample Model	AKYGA 23A
规格 Rating	12V
测试实验室 Testing laboratory	广东储能检测技术有限公司 Guangdong ESTL Technology Co., Ltd.
测试地址 Testing Address	广东省东莞市松山湖园区总部二路9号1栋1单元101、201-208室。 Room 101, 201-208, Unit 1, Building 1, No. 9 Headquarters 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China.
委托单位 Applicant	Ropla Elektronik Sp. z o.o.
委托单位地址 Applicant Address	ul.Wroclawska 1C,52-200 Suchy Dwór
生产单位 Manufacturer	Ropla Elektronik Sp. z o.o.
生产单位地址 Manufacturer Address	ul.Wroclawska 1C,52-200 Suchy Dwór
鉴定依据 Inspection according to	依据GB/T16483-2008&ISO11014:2009编制 According to GB/T16483-2008&ISO11014:2009
紧急联系电话 Emergency telephone call	+48 71 3698743
测试日期 Tested date	2023-08-23 to 2023-08-25
生效时间 Effective Date	2023-08-25

检测 Tested by

陈保康

审核 Reviewed by

胡丽珍

批准 Approved by



第二部分 成分/组成信息 Section 2 Composition/Information on Ingredient		
危险成分 (化学名称) Hazardous Ingredients (Chemical Name)	含量及含量百分比(%) Concentration or concentration ranges (%)	CAS编号 CAS Number
锌 Zinc	15-40	7440-66-6
碳黑 Carbon Black	10-30	1333-86-4
二氧化锰 Manganese dioxide	10-30	1313-13-9
氯化锌 Zinc chloride	7-13	7646-85-7
铁 Iron	5-10	7439-89-6
水 Distilled water	1-5	7732-18-5

第三部分 主要危险性鉴定 Section 3 Hazards Identification	
爆炸危险性 Explosive risk	该物品不属于爆炸危险品 This article does not belong to the explosion dangerous goods
易燃危险性 Flammable risk	该物品不属于易燃危险品 This article does not belong to the flammable material
氧化危险性 Oxidation risk	该物品不属于氧化危险品 This article does not belong to the oxidation of dangerous goods
毒害危险性 Toxic risk	该物品不属于毒害危险品 This article does not belong to the toxic dangerous goods
放射危险性 Radioactive risk	该物品不属于放射危险品 This article does not belong to the radiation of dangerous goods
腐蚀危险性 Mordant risk	该物品不属于腐蚀危险品 This article does not belong to the corrosion of dangerous goods

## 第四部分 急救措施

### Section 4 First aid measures

**眼睛接触:** 提起眼皮用大量水冲洗眼睛至少15分钟, 立即就医。

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

**皮肤接触:** 脱掉被污染的衣服, 并用大量水或淋浴冲洗皮肤15分钟, 立即就医。

**After Skin Contact:** Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

**吸入:** 如有吸入, 迅速脱离现场至新鲜空气处, 如果停止呼吸, 进行人工呼吸。如果呼吸困难, 供给氧气。

**After Inhalation:** If inhaled, quickly leave the site to fresh air. If you stop breathing, perform artificial respiration. If breathing is difficult, supply oxygen.

**食入:** 如有知觉, 请用水冲洗口腔, 就医。

**After Ingestion:** If swallowed, wash out mouth with water provided person is conscious Call a physician.

## 第五部分 消防措施

### Section 5 Fire-fighting measures

**危险特性:** 在火灾时可释放有害浓烟、气体或者蒸汽。

**Characteristics of Hazard:** Toxic fumes; gases or vapors may evolve on burning.

**有害燃烧产物:** 一氧化碳和二氧化碳、HF、氟磷化物。

**Hazardous Combustion Products:** CO, CO<sub>2</sub>, HF, phosphorus fluoride.

**灭火方法及灭火剂:** 对锂电池, 大量冷水是一个有效的灭火剂。不要使用温或热水。不要使用哈龙类灭火材料。可使用干粉、沙、土。

**Fire-extinguishing Methods and Extinguishing Media:** Copious amounts of cold water are an effective extinguishing medium for lithium batteries. Don't use warm or hot water. Don't use Halon type extinguishing material.

**May use dry powder, sand, earth.**

**灭火注意事项:** 消防人员须佩戴防毒面具、穿全身消防服。

**Attention in Fire-extinguishing:** The Firemen should put on antigas masks and full fire-fighting suits.

## 第六部分 泄漏应急处理

### Section 6 Accidental release measures

当电池发生泄漏，液体可以用砂，土，或其他惰性物质吸收，受污染的区域应同时通风。

When leakage of batteries happens, liquid could be absorbed with sands, earth, or other inert substance, and the contaminated area should be ventilated meantime.

未放热或燃烧的破损电池，应装入密封的塑料袋或容器。

Damaged batteries that are not hot or burning should be placed in a sealed plastic bag or container.

## 第七部分 操作处置和储存

### Section 7 Handling and storage

**操作注意事项：** 储存时远离食物和水源。吃饭喝水前彻底清洗双手。储有化学物的容器搬用时需防止静电的产生和积聚。

**Precautions for safe handling:** Consumption of food and beverage should be avoided in work areas. Wash hands with soap and water before eating, drinking. Ground containers when transferring liquid to prevent static accumulation and discharge.

**有关火灾及防止爆炸的资料：** 电池在拆开、挤压、遇火或高温情况下，会引起起火或爆炸，严禁短路或非正确操作。

**Information about fire and explosion protection:** Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

**储存注意事项：** 储存在一个低温，干燥，通风良好的环境。远离热源，避免长时间阳光照射。未使用时密封容器。

**Conditions for safe storage, including any incompatibilities:** Requirements to be met by storerooms and receptacles. Store in a cool, dry, well-ventilated place. Keep away from heat, avoiding the long time of sunlight.

## 第八部分 接触控制 / 个人防护

### Section 8 Exposure controls/personal protection

**最高容许浓度：** 没有适用标准

**Maximum Allowable Concentration:** No Standard available

**工程控制：** 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。

**Engineering Controls:** 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.

## 第九部分 理化特性

### Section 9 Physical and Chemical Properties

有关基本物理及化学特性的信息 Information on basic physical and chemical properties	
外观 Appearance	多种颜色 Multi-colors
形状 Form	圆柱形 Cylindrical
气味 Odour	无味 Odorless

## 第十部分 稳定性和反应活性

### Section 10 Stability and reactivity

**稳定性:** 常温常压稳定。

**Stability:** Stable under normal temperatures and pressures.

**禁配物:** 氧化剂。

**Incompatibility:** Oxidizing agents.

**避免接触的条件:** 热和明火、短路和水。

**Conditions to Avoid:** Heat and open flame, short circuit, and water.

**聚合危害:** 不会发生。

**Hazardous polymerization:** Will not occur.

**分解产物:** 一氧化碳、二氧化碳、HF、氟磷化物。

**Decomposition Products:** CO, CO<sub>2</sub>, HF, Phosphorus fluoride.

## 第十一部分 毒理性资料

### Section 11 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, vapour fumes may be very irritating to the eyes and skin.**

**吸入:** 对肺有刺激性。

**Inhalation:** Lung irritant.

**皮肤接触:** 对皮肤有刺激性。

**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.

下列情况下会危害人员身体健康: 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.

## 第十二部分 生态学资料

### Section 12 Ecological information

**生态毒性:** 无

**Ecological Toxicity:** N/A

**生物降解性:** 无

**Biodegradability:** N/A

**非生物降解性:** 无

**Non-biodegradability:** N/A

**其它有害作用:** 该物质对环境有无明显危害。

**Other Hazardous:** Will not effect environmental evidently.

## 第十三部分 废弃处置

### Section 13 Disposal consideration

**废弃处置方法:** 建议遵照国家和地方法规处置或再利用。

**Waste Treatment:** Recycle or dispose of in accordance with government, state & local regulations.

**废弃注意事项:** 废电池不能被当作普通垃圾。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。

**Attention for Waste Treatment:** 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 treated similarly. Best way is recycling.

## 第十四部分 运输信息

### Section 14 Transport information

监管方 Regulatory Parties	特殊规定 Special Provisions
ADR	No Regulated
IMDG	No Regulated
UN, ICAO	No Regulated
US DOT	49 CFR 172.102 Provision 130
IATA	A123

所有形式的运输（如卡车、航空或海运）中的电池必须以安全可靠的方式包装。所有安全包装机构都有监管方面的要求，要求电池的包装方式要防止短路，并且要装在（坚固的纸箱/包装袋）里，防止里面的东西溢出。

碳锌电池（有时称为“干电池”不列为危险货物根据ADR欧洲协议关于国际道路危险货物运输，国际海上危险货物运输规则IMDG联合国危险好规定（2023 IATA危险品规定64版），ICAO技术说明和美国有害物质法规（49 CFR）。这些电池只要符合下列特别规定的规定，就不受《危险品规例》的规管。

The Batteries in all forms of transportation (e.g. Truck, air, or sea) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in (Strong Carton / Packaging) that prevents spillage of contents.

Carbon Zinc Battery (sometime referred to as “Dry Cell” are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, The IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations (2023 IATA Dangerous Goods Regulations 64th Edition), ICAO Technical Instructions and the U.S. hazardous materials regulations (49 CFR). These batteries are not subject to the dangerous goods regulations provided they meet the requirement contained in the following special provisions.

所有的碳锌电池都是这样包装的，以防止短路或产生危险的热量，并满足以上列出的特殊规定。此外，国际航空运输协会（IATA）危险品条例和国际民航组织（ICAO）的技术说明要求在航空运单签发时，在航空运单上注明“不受限制”字样和特别条款编号: A123。

All Carbon Zine Batteries are packed in such a way to prevent short circuits or the generation dangerous quantities of heat and meet the special provisions listed above. In addition, The IATA Dangerous Goods Regulations ICAO Technical Instructions require the words “ Not Restricted” and the Special Provision No: A123 be provided on the air waybill, when an air waybill is issued.



## 第十五部分 法规信息

### Section 15 Regulation information

#### 法规信息:

该电池不属于美国交通部或主要国际监管机构的危险品，因此不受监管。SARA/TITLE III 标明本电池及其内容不受《应急计划和社区知情权法案》的要求。

Batteries are not classified as dangerous goods by US Department of Transportation or the major international regulatory bodies and are therefore not regulated. SARA/TITLE III – As an article, this battery and its contents are not subject to the requirements of the Emergency Planning and Community Right to Know Act.

## 第十六部分 其他信息

### Section 16 Other information

此信息并非对所有由Ropla Elektronik Sp. z o.o.生产的电池均有效。此信息来自可靠来源，但不对所包含信息的完整性和准确性做任何保证。广东储能检测技术有限公司对因电池使用不当造成的任何损坏或损失不承担任何责任，用户应掌握正确的使用方法并对电池的使用负责。

This information is not effective to all the batteries manufactured by Ropla Elektronik Sp. z o.o.. This information comes from reliable sources, but no warranty is made to the completeness and accuracy of information contained. Guangdong ESTL Technology Co., Ltd. doesn't assume responsibility for any damage or loss because of misuse of batteries. User's should grasp the correct use method and be responsible for the use of batteries.

**Photos of Samples and Labels/样品照片及标识**

## 声明 Declaration

1. 本报告无批准人、审核人及鉴定人签名无效。

The test report is invalid without the signatures of Ratifier, Reviewer and Testing engineer.

2. 对检验报告若有异议，应于收到报告之日起十五天内向检验单位提出。

Objections to the test report must be submitted to ESTL within 15 days.

3. 未经本试验室书面同意，不得部分地复制本报告。

Nobody is allowed to photocopy or partly photocopy this test report without written permission of ESTL.

4. 本报告仅对送检样品负责。

The test report is valid for the tested samples only.

5. 本报告涂改无效。

The test report is invalid if altered.

--- 报告结束 ---

--- End of report ---