

## 化学品安全技术说明书 (MSDS)

委托方 Client	Ropla Elektronik HP Sp. z o.o.
委托方地址 Add. of Client	Wroclawska 1C, 52-200 Suchy Dwor
样品名称 Description	碱性电池 Alkaline batteries
品牌名 Trade Name	Akyga Battery
型号规格 Model/Type	LR8D425 (AAAA), LR03 (AAA), LR6 (AA), LR23 (A), LR12 (B), LR14 (C), LR20 (D), LR25 (F), 8LR932 (A23), 8LR732 (A27), 6LR61 (9V)
制造厂 Manufacturer	Ropla Elektronik HP Sp. z o.o.
制造厂地址 Add. Of Manufacturer	Wroclawska 1C, 52-200 Suchy Dwor
技术依据 Reference documents	ISO 11014:2009 化学品安全技术说明书—内容和项目顺序 ISO 11014:2009 Safety data sheet for chemical products-Content and order of sections GB/T 16483-2008 化学品安全技术说明书 内容和项目顺序 GB/T 16483-2008 Safety data sheet for chemical products-Content and order of sections 国际航空运输协会《危险品规则》(第 66 版) IATA Dangerous Goods Regulation (66 <sup>th</sup> ) 国际海事组织《国际海运危险货物规则》(第 42-24 版) IMO International Maritime Dangerous Goods Code (42-24 edition)

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编写:

审核:



## 一. 样品信息 Sample information

样品名称 Sample Name	碱性电池 Alkaline batteries
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## 二. 内容与说明 Content and instructions

### 1. 化学品及企业标识 Chemical product and company identification

化学品的名称 Name of chemical product		碱性电池 Alkaline batteries
制造商 Manufacturer	名称 Name	Ropla Elektronik HP Sp. z o.o.
	地址 Address	Wroclawska 1C, 52-200 Suchy Dwor
	电话号码 Telephone number	+48-71-3698743
	应急咨询电话 Emergency telephone number	+48-71-3698743
	电子邮件 E-mail address	p.zabski@ropla.eu

这份 MSDS 报告由东莞市中认联科检测技术有限公司签发;

This MSDS was prepared by Dongguan ZRLK Testing Technology Co., Ltd.

## 2. 危险性概述 Hazards identification

### 1) 主要的物理及化学危险性 Important Physical and chemical hazards

在强压变形、拆解、短路时有起火爆炸与化学烧伤等危险，在高温环境或放置于火焰环境中、超负荷使用时有起火爆炸危险。

When the battery is in extreme pressure deformation, high-temperature environment, overload, short-circuit condition, or disassemble the battery, an explosion of fire and chemical burn hazards may occur.

### 2) 对人体健康影响 Effects of the human health.

#### 眼睛 Eyes

正常使用下无危害性，但在拆解、弯曲、短路可能会引起电池起火爆炸伤害眼睛。破损时挥发出气体会对眼睛产生刺激。

In normal condition, contact between the battery and eyes will not cause any harms. However, the gas Volatilize from a damaged battery may be harmful to eyes.

#### 皮肤 Skin

正常情况下接触无对皮肤危害性。在电池破损情况下接触有可能引起化学烧伤或皮肤过敏发炎症状。

In normal condition, contact between the battery and skin will not cause any harms. Contact with a damaged battery may cause skin allergies or chemical burns.

#### 吸入 Inhalation

完好电池并无挥发出可供吸入气体情况。破损时会挥发出微量气体会刺激呼吸道，严重者可能引起过敏反应。

A battery volatilizes no gas unless it was damaged. Damaged battery will volatilize little gas that may stimulate the respiratory tract or cause an anaphylaxis in serious condition.

#### 食入 Ingestion

食入会对呼吸道产生伤害、对肠胃产生烧伤，严重会造成永久性损害

Swallowing battery will be damaged to the respiratory tract and cause chemical burns to the stomach; in serious conditions it will cause Permanent damage.

## 3. 成分/组成信息 Composition/information on ingredients

Hazardous Ingredients (Chemical Name)化学成分	Concentration or concentration ranges (%) 浓度或浓度范围(%)	CAS Number CAS 号
Zn	23-27	7440-66-6
MnO <sub>2</sub>	27-31	1313-13-9
C	3-4	7782-42-5
(C <sub>3</sub> H <sub>6</sub> ) <sub>n</sub>	2-3	9003-07-0
Cu	1	7440-50-8

KON	4.5-5.5	1310-58-3
H <sub>2</sub> O	8-9	7732-18-5
Fe	17-19	7439-89-6
Cr	4-5	7440-47-3
Ni	1.5-2.5	7440-02-0

#### 4. 急救措施 First-aid measures

##### 眼睛 Eyes

如有接触损坏电池，立即用清水清洗眼睛 15 分钟以上直至刺痛/刺激感消失为止，并及时去就医。

If your eyes contact with a damaged battery, flush with copious amount of water for at least 15 minutes until the stinging and irritation subside, and Seek immediate medical attention.

##### 皮肤 Skin

如有接触，立即脱下被污染衣服并用大量清水冲洗皮肤或淋浴，如灼伤感持续立刻去就医。

If your skin contact with a damaged battery, immediately take off contaminated clothing and flush your skin with copious amount of water or have a shower. Seek immediate medical attention if burning sensation continues.

##### 吸入 Inhalation

立刻转移到空气新鲜环境下呼吸新鲜空气，休息。如出现呼吸困难或头晕头痛等症状立刻请人陪同去就医。

Remove to fresh air immediately and have a rest, If you feel dyspnea, dizziness or headache, seek immediate medical attention.

##### 食入 Ingestion

如果食入电池，不要催吐且不要再吃下食物或喝饮料，立刻就医

If battery or open battery is ingested, do not induce vomiting or give food or drink. Seek medical attention immediately.

#### 5. 消防措施 Fire-fighting measures

此产品在强压弯曲或短路等情况下容易起火并冒出大量烟雾，应正确使用并置于阴凉环境下，避免放置高温、日光照射及受重压的地方。如发生起火，戴上防毒面具在条件允许情况下洒水或用灭火器让毗邻的未起火电池降温避免火势蔓延并用工具把起火电池和其他电池分离，让其自然熄灭；或用大量的水灭火，但起火电池一般都会在内部化学物质反应完后火才熄灭下来。如果有电池起火火势较大，立刻报火警并疏散人员到安全地方。

This battery can get fire easily and made a lot of smoke under the forced bending and short-circuit condition, so it should be properly used and placed in a cool environment and Avoid placing the battery package under heat, pressure and direct sunlight. In the event of fire, wear gas masks and cool the adjacent batteries and control the spread of fire with water or extinguishers, separate the fire batteries with other batteries as conditions permit, let the fire naturally extinguished, otherwise put out the fire with lots of water. In normal condition the fire is not extinguished until the reactions that between the chemicals contained in the battery are completed. In the event of a big fire, report the fire immediately and evacuate to a safe place.

**6. 泄漏应急处理 Accidental release measures**

将溢漏物与电池清扫, 并放进干燥可密闭的金属容器或材质不易燃的容器中, 交由电池回收企业进行环保处理。避免电池弃扔到自然环境中。

Clean the spills and batteries, place them in a dry sealed metal container or nonflammable material container, and bring them to battery recycling companies to deal with environmental protection. Do not throw away the damaged batteries or waste batteries.

**7. 操作处置与储存 Handling and storage****操作 Handling**

不能擅自组装拆解电池或短路, 不能让电池接近火源。运输电池应避免暴力装卸电池货物、避免电池受到挤压或剧烈振动。

Do not assemble and disassemble a battery, battery short-circuit is not allowed too. Keep the battery away from the fire. When transporting these batteries, the battery should be careful handling to avoid the battery being squeezed or excessive vibration.

**储存 Storage**

长时间存储前先充满电。电池应储存于阴凉环境中。

The battery should be fully charged before long term storage. The battery should be stored in a cool environment.

**8. 接触控制和个体防护 Exposure controls/Personal Protection****工程控制 Engineering control**

选择合理的通风设备, 足够量的防毒面具灭火器及水源, 配备存放泄漏电池的金属容器。配备洗浴设备。  
Choose the suitable ventilation equipment; provide sufficient quantity of fire extinguishers, gas mask and water; equip with metal storage containers and bathing equipments.

**呼吸系统防护 Respiratory protection**

正常情况下无必要作防护 Normally there is no need to do protection.

**眼睛防护 Eye protection**

正常情况下无必要作防护 Normally there is no need to do protection.

**身体和皮肤防护 The body and skin protection**

正常情况下无必要作防护 Normally there is no need to do protection.

**9. 理化特性 Physical and chemical properties**

物品外观与形状 Object appearance and shape	圆柱形固体 Cylindrical Solid
气味 Odor	无 None
气味阈值 Odor threshold	不适用 Not Applicable

pH 值 pH Value	不适用 Not Applicable
熔点/凝固点 Melting point/Freezing Point	不适用 Not Applicable
初始沸点和沸腾范围 Boiling Point, Initial Boiling Point and Boiling	不适用 Not Applicable
闪点 Flash point	不适用 Not Applicable
蒸发速率 Density/Relative Density	不适用 Not Applicable
易燃性(固态、气态) Flammability (Solid, Gas)	不适用 Not Applicable
上下易燃极限或爆炸极限 Lower/Upper Explosion Limit/Flammability Limit	不适用 Not Applicable
蒸汽压力 Vapor Pressure	不适用 Not Applicable
蒸汽密度 Vapor Density	不适用 Not Applicable
相对密度 Relative Vapor Density	不适用 Not Applicable
可溶性 Solubility	部分溶于水 Partial soluble in water
分配系数: n-辛醇/水 Partition Coefficient N-Octanol/Water(Log Value)	不适用 Not Applicable
自动点火温度 Autoignition Temperature	不适用 Not Applicable
分解温度 Decomposition Temperature	不适用 Not Applicable

## 10. 稳定性和反应性 Stability and reactivity

### 稳定性 Stability

正常环境下稳定。 Stable under the regular environment.

### 应避免的条件 Should avoid conditions

高温或过湿环境, 撞击震动或受挤压, 正负极反接使用。

High temperature, wet environment, mechanical shock, vibration, crush, reverse polarity used should be avoided.

### 不相容物质 Incompatible materials

无 None

### 危险的分解产物 Hazardous decomposition products

在起火时会释放出刺鼻的浓烟雾。

When the battery catches fire, it will release pungent thick smoke.

**11. 毒理学信息 Toxicological information**

正常情况下接触电池无毒性作用。

In normal condition, contact with the battery is non-toxic.

**12. 生态学信息 Ecological information**

正常处理电池不会对生态环境产生影响。

Proper disposal of battery does not present ecological hazard.

**13. 废弃处置 Disposal considerations**

交由电池回收企业进行回收处置, 不能随意丢弃于环境中。具体参照有关国家相关法规。

It needs to be referred to the waste battery recycling companies for recycling disposal, cannot arbitrarily discarded in the environment. Specific conditions reference to the relevant national laws and regulations.

**14. 运输信息 Transport information**

这份报告适用于海运, 空运和陆运;

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

**Land transport 陆运**

ADR/RID class: Not regulated. 不受限制。

**Maritime transport 海运**

UN No. UN 编号: Not regulated. 不受限制。

Proper Shipping Name/Description 运输专用名称: Batteries, Alkaline batteries 电池, 碱性电池

Class or Div. (Sub Hazard) 危险类别: Not regulated. 不受限制。

Packing Group 包装等级: Not regulated. 不受限制。

**Air transport 空运**

UN No. UN 编号: Not regulated. 不受限制。

Proper Shipping Name/Description 运输专用名称: Batteries, Alkaline batteries 电池, 碱性电池

Class or Div. (Sub Hazard) 危险类别: Not regulated. 不受限制。

Packing Group 包装等级: Not regulated. 不受限制。

The Alkaline batteries according to SP A 123 of the 2025 IATA Dangerous Goods regulations 66<sup>th</sup> Edition may be transported. and applicable U.S. DOT regulations for the safe transport of Alkaline batteries.

碱性电池应满足 2025 国际航空运输协会《危险品规则》(66 版)的特殊规定 A123 进行包装空运;

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture. 包装应足以避免运输、搬运和堆放过程中的机械损坏。材料和封装设计的选择应能够防止意外导电、端子腐蚀和水分进入。

The Alkaline batteries having the potential of a dangerous evolution of heat must be prepared for transport so as to prevent: 具有潜在放热危险性的碱性电池运输要尽量避免:

a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and unintentional activation. 短路 (例如, 在使用电池的情况下, 通过显示终端的有效绝缘; 或者, 在使用设备的情况下, 通过电池的断开和保护显示终端); 和意外启动。

The words "Not Restricted" and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6, when an Air Waybill is issued. 当填制航空货运单时, "不受限制" 字样和特殊规定编号必须包含在按 8.2.6 的要求的航空货运单中物质的描述中。

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, 包装如有损坏, 便会有易燃危险;

## 15. 法规信息 Regulatory Information

《危险品规则》 Dangerous Goods Regulations

《国际海运危险货物规则》 IMO International Maritime Dangerous Goods Code relevant regulations.

参照联合国, 国家, 地方性法规。

Refer to U. N., national, local regulations.

## 16. 其他信息 Other information

上述信息是基于现有的数据信息, 是我们目前所掌握的最佳资料。然而, 不对此类信息做出适当性担保或任何其他明示或默示担保, 我们也不承担使用此类信息所产生的任何责任。用户应自行调查, 以确定信息是否适合其特定目的。虽然在编制本报告所载的数据时采取了合理的预防措施, 但仅供你参考、考虑和调查。这份材料安全数据表为安全处理和使用本产品提供了指导方针; 它没有也不能就所有可能的情况提出建议; 因此, 应该评估你对本产品的具体使用情况, 以确定是否需要采取额外的预防措施。

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