Safety Data Sheet
安全数据表

This sheet is only provided as technical information and is referred normal use of the product in question. Pairdeer makes no warranty expressed or implied.
本表仅作为技术信息提供，是以电池在正常条件下使用为前提编制的引导性文件，不具备任何保障。

Section 1- Identification 信息

● Product Name:产品名称 Alkaline zinc-manganese dioxide batteries 碱性锌锰电池	Sizes:型号 LR6/LR03/LR20/LR14
● Company:公司名称 Ningbo GP & Sonluk Battery Co.,Ltd. 宁波金山双鹿电池有限公司	Telephone Numbers:联系电话 +86 574 87910000
● Address:地址 No.600 Qingfeng Road, Cicheng Town, Jiangbei District, Ningbo, Zhejiang, China 宁波市江北区慈城镇庆丰路 600 号	Effective Date:生效日期 Jan.1, 2026

Section 2-Hazards Identification 危害识别

This contains potassium hydroxide solution (KOH), and other combustible materials, all sealed in steel can. For this reason,improper handling of the battery could lead to distortion,leakage*,overheating,explosion and cause human injury or equipment trouble. Please strictly observe safety instructions.

(*leakage is defined as an unintended escape of liquid from a battery.)

电池含有氢氧化钾溶液（KOH）和其他可燃材料，全部用钢壳密封。因此，对电池的不当操作可能导致变形、泄漏*、过热、爆炸，并导致人身伤害或设备故障。请严格遵守安全说

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明。

（*泄漏是指电池中液体的意外泄漏。）

Results of PBT and vPvB assessment:

PBT：NA

vPvB：NA

Determination of endocrine-disrupting properties:NA

持久性、生物累积性和毒性和高持久性、高生物累积性评估结果：

持久性、生物累积性和毒性：不适用

高持久性、高生物累积性：不适用

内分泌干扰物：不适用

Section 3-Composition/Information on Ingredients 成分信息

Ingredient 成分	CAS#	Approximate Content(wt%)重量百分比			
		LR6	LR03	LR14	LR20
Manganese Dioxide (MnO_2)二氧化锰	1313-13-9	42.6	42.0	41.0	41.8
Zinc (Zn)锌	7440-66-6	18.1	16.9	17.8	17.4
Water (H_2O)水	7732-18-5	8.3	7.2	11.5	10.9
Potassium Hydroxide (KOH)氢氧化钾	1310-58-3	6.3	4.8	8	7.0
Graphite 石墨	7782-42-5	3	2.5	2.8	3.4
Brass 铜	12597-71-6	2.4	3.5	0.8	0.8
Iron 铁	7439-89-6	17.5	21.2	15.7	16.3
Ni-plating 镍	7440-02-0	0.3	0.3	0.2	0.2
Nylon 尼龙	32131-17-2	0.9	0.9	1.4	1.4
Cellulose 纤维	65996-61-4	0.3	0.35	0.4	0.4
PVA 聚乙烯醇	9002-89-5	0.3	0.35	0.4	0.4

Section 4-First -Aid Measures 急救措施

None unless internal materials exposure. If contents are leaked out,observe following instructions

Inhalation　Fumes can cause respiratory irritation. Remove to fresh air and consult a physician.

Skin　Immediately flush skin with plenty of water. If itch or irritation by chemical

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burn persists,consult a physician.

Eyes Immediately flush eye with plenty of water for at least 15 minutes. Consult a physician immediately

Ingestion If swallowing a battery,consult a physician immediately.
If contents come into mouth, immediately rinse by plenty of water and consult a physician.

使用方法正确电池安全。若内部物质泄漏，请遵循以下说明：

吸入 烟雾会引起呼吸道刺激。请转移到新鲜空气中并咨询医生。

皮肤接触 立即用大量的水冲洗皮肤。如果化学烧伤引起的瘙痒或刺激持续存在，请咨询医生。

溅到眼睛 请立即用大量的水冲洗眼睛至少 15 分钟。立即就医。

吞食 如果吞咽电池，请立即咨询医生。如果内容物进入口腔，立即用大量水冲洗并咨询医生。

Section 5-Fire-Fighting Measures 消防措施

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.Fire fighters should wear self-contained breathing apparatus.

如果发生火灾，允许在这些电池或其包装材料上使用任何种类的灭火剂。如果电池暴露在火中，请冷却电池外部以防止破裂。消防员应佩戴自给式呼吸器。

Section 6-Accidental Release Measures 泄漏应急处理

Steps to be taken in case material is released or spilled.

Batteries that are leakage should be handled with rubber gloves.

Avoid direct contact with electrolyte.

Wear protective clothing and a positive pressure Self-Contained Breathing Apparatus (SCBA).

材料泄漏或溢出时应采取的措施。

电池泄漏时应戴上橡胶手套。

避免直接接触电解液。

穿戴防护服和正压自给式呼吸器（SCBA）。

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Section 7-Handling and Storage 操作和储存

1) Handling 操作

Never swallow. Never charge. Never heat. Never expose to open flame. Never disassemble. Never reverse the positive and negative terminals when mounting. Never short-circuit the battery. Never weld the terminal or wire to the body of the battery directly. Never use different batteries together. Never touch the liquid leaked out of battery. Never bring fire close to battery liquid. Never keep in touch with battery.

不要吞咽。不要充电。不要加热。不要暴露在明火下。不要拆卸。安装时切勿反转正极和负极端子。切勿使电池短路。切勿将端子或导线直接焊接到蓄电池体上。不要同时使用不同的电池。不要碰从电池里漏出来的液体。不要让火靠近电池液体。不要让电池电量耗尽。

2) Storage 储存

Never store the battery in hot and high humid place.

切勿将电池存放在高温高湿的地方

Section 8-Exposure Controls/Personal Protection 暴露控制，个人防护

No engineering measure is necessary during normal use. If internal cell materials are leaked, the information in Section 4 & Section 6 will be useful.

正常使用时无需采取措施。如果内部电池材料泄漏，第 4 节和第 6 节中的信息将非常有用。

Section 9-Physical and Chemical Characteristics 物理/化学特性

Nominal Voltage: 1.5V 标称电压: 1.5V

Section 10-Stability and Reactivity 稳定性和反应性

Stability	Stable
Hazardous polymerization	Will not occur
Condition to avoid	See section 7.
Hazardous Decomposition or Byproducts	Hydrogen
稳定性	稳定
危险聚合	不会发生危险聚合
避免条件	见第 7 节。
危险分解或副产物	氢

Section 11-Toxicological Information 毒理学信息

Skin corrosion/irritation: Causes severe skin burns and eye damage.

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Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.
Endocrine disrupting properties：None of the ingredients is listed.
皮肤腐蚀/刺激：导致严重的皮肤灼伤和眼睛损伤。
严重的眼睛损伤/刺激：导致严重的眼睛损伤。
呼吸或皮肤致敏：根据现有数据，不符合分类标准。
生殖细胞突变性：根据现有资料，分类标准不符合。
致癌性：根据现有数据，不符合分类标准。
生殖毒性：根据现有数据，未达到分类标准。
单次暴露：根据现有数据，不符合分类标准。
重复暴露：根据现有数据，不符合分类标准。
吸入危害：根据现有资料，不符合分类标准。
内分泌干扰特性：没有列出任何成分。

Section 12-Ecological Information 生态信息

Aquatic toxicity: No further relevant information available
Persistence and degradability: No further relevant information available.
Bioaccumulative potential: No further relevant information available..
Mobility in soil: No further relevant information available.
Results of PBT and vPvB assessment:
PBT: NA
vPvB: NA
Endocrine disrupting properties: The product does not contain substances with endocrine disrupting properties.
水生毒性：没有进一步的相关资料
持久性和可降解性：没有进一步的相关信息。
生物蓄积潜能：没有进一步的相关资料。

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土壤流动性：没有进一步的相关资料。
持久性、生物累积性和毒性和高持久性、高生物累积性评估结果：
持久性、生物累积性和毒性：不适用
高持久性、高生物累积性：不适用
内分泌干扰特性：本品不含具有内分泌干扰特性的物质。

Section 13-Disposal Considerations 处置条件

The battery may be regulated by national or local regulation. Please follow the instructions of proper regulation. As electric capacity is left in a discarded battery and it comes into contact with other metals, it could lead to distortion, leakage, overheating, or explosion, so make sure to cover the (+)and (-) terminals with friction tape or some other insulator before disposal.
电池的使用可能受国家或地方法规的约束。请遵循相关规范的指示进行操作。由于废弃电池会与其他金属接触，可能会导致变形、泄漏、过热或爆炸，所以在处理时务必用胶带或其他绝缘材料覆盖（+）和（-）端子。

Section 14-Transportation Information 运输信息

In general, all batteries in all forms of transportation (ground, air, or ocean) 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 outer packaging" that prevents spillage of contents. All original packaging for alkaline batteries has been designed to be compliant with these regulatory concerns.
一般来说，所有运输形式（地面、空中或海洋）的电池必须用安全和负责任的方式包装。所有机构出于安全包装的监管考虑，要求电池的包装方式应防止短路，并包含在"坚固的外包装"中，以防止内部物溢出。碱性电池的所有原始包装设计都符合这些法规要求。
Alkaline batteries (sometimes referred to as "Dry cell" batteries) 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, IATA Dangerous Goods Regulations, 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 requirements contained in the following special provisions.

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碱性电池（有时称为“干电池”）不属于 ADR 欧洲公路危险货物运输协定、IMDG 国际海运危险货物规则、联合国危险货物规则、IATA 危险货物规则下的危险货物，国际民航组织技术说明和美国危险品条例（49 CFR）。这些电池不受危险品条例的限制，只要它们符合下列特别规定的要求。

Regulatory Body	Special Provisions
ADR	Not regulated
IMDG	Not regulated
UN	Not regulated
US DOT	49 CFR 172.102 Provision 130
IATA	A123
ICAO	Not regulated

All alkaline 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 2026 IATA (67th edition) Dangerous Goods Regulations and ICAO Technical Instructions require the words “not restricted” and the Special Provision number A123 be provided on the air waybill, when an air waybill is issued.

所有碱性电池的包装是防止短路或产生危险的热量，并符合上述特殊规定。此外，2026 年国际航空运输协会（IATA）（第 67 版）危险品条例和国际民航组织（ICAO）技术说明要求在签发航空货运单时在航空货运单上注明“不受限制”字样和 A123 号特别规定。

Section 15-Regulatory Information 监管信息

USA EPA Mercury Containing & Rechargeable Battery Management Act of 1996: No mercury added

REGULATION (EU) 2023/1542 Batteries and Waste Batteries: batteries are compliant with all aspects of the Directive

美国环保署 1996 年含汞可充电电池管理法：不添加汞

欧盟电池与废电池法规（EU）2023/1542:Pairdeer 电池符合该法规的所有方面

Section 16-Other Information 其他信息

If you want further information, please contact sales representative.

如果您需要更多信息，请联系 Pairdeer 销售代表

Prepared by: 冯晓波 Checked by:

NA=Not Applicable

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