



PSDS – Product Safety Data Sheet

Alkaline - Major and Specialty Cells and Batteries

Product Name	Duracell Alkaline (Major and Specialty Cells and Batteries)
Chemical System	Alkaline Manganese Dioxide
Description	Duracell Branded Consumer Alkaline Battery
Product Category	Electro-Technical Device
Use	Portable power source for electronic devices.
Global sub-brands (Retail)	Coppertop, Plus, Quantum, Simply, Ultra, Basic, Optimum, Original, Deluxe, Chhota Power, Classic, Professional
Global sub-brands (B2B)	Procell, OEM/OEA
Physical Description (IEC Designation)	Major Cells: AA (LR6), AAA (LR03), C (LR14), D (LR20) & 9V (6F22, 6LR61, 6LP3146)
	Specialty Cells: AAAA (LR8D425), MN11, MN21 (8LR932, A23, 23A), MN27, MN175, PX76/A76/76A (LR44), PX28, PX625, (LR9), 186 (LR43), 191/LR1130 (LR54), N (LR1), J (4LR61), 4.5V, 625A
	Lanterns: MN903, MN908, MN915, MN918; MN1203
Principles of Operation	A battery powers a device by converting stored chemical energy into electrical energy.
Document ID	PSDS - ALK
Date Prepared	12/5/2022
Preparer	Product Safety & Regulatory

This Product Safety Data Sheet (PSDS) provides relevant battery information to retailers, consumers, OEMs, and other users requesting a GHS-compliant PSDS. Articles, such as batteries, are exempt from GHS PSDS classification criteria. The GHS criteria is not designed or intended to be used to classify the physical, health, and environmental hazards of an article. Branded consumer batteries are defined as electro-technical devices. The design, safety, manufacture, and qualification of branded consumer batteries follow ANSI and IEC battery standards. This document is based on principles set forth in the following hazard communication approaches ANSI Z-400.1, GHS, JAMP AIS, and IEC 62474.

Section 1: MANUFACTURER'S INFORMATION

Manufacturer's Name and Address	<p>Duracell, a Berkshire Hathaway Company U.S. Operations, Inc., 14 Research Drive Bethel, CT USA 06801</p> <p>Duracell Batteries BV, Nijverheidslaan 7, 3200 Aarschot, Belgium.</p> <p>Duracell International Operations Sàrl, Rue du Pré-de-la-Bichette 1, CH-1202, Geneva, Switzerland</p> <p>Duracell (China) Ltd. Hongtu High & New Technology Development Zone, Nan Cheng District, Dongguan, 523080 Guangdong, China</p> <p>Duracell Australia Pty. Ltd. Suite 2.01, Level 2 423 Pennant Hills Rd, Pennant Hills NSW 2120 Australia</p> <p>Duracell Mexico Av. Santa Fe 440 Of. 100 Col. Santa Fe Cruz Manca Del. Cuajimalpa de Morelos CDMX, 05348 Mexico</p>
	Telephone
Global Website	www.duracell.com



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Consumer Relations	North America 1-800-551-2355 (9:00 AM - 5:00 PM EST)
	Latin America (Brazil) 0 800 727 1165, (Chile) 188 800 224 488, (México) 0 1800 283 2901 (Rest of Latin America) duracell.mx.help .
	Europe (UK) 0800 716434, (FR) 0800 346 790 (Service & appel gratuits), (IRL) 1 800 509 176, (DE) 800 101 2112, (AT) 0800 1025 1956, (CH) 0800 000 885, (BE) 0800 509 95, (NL) 0800 265 8616, (IT) 800 125 662, (ES) 900 800 522, (PT) 800 781 012, (GR) 210 66 75 000, (CY) 22-210900, (DK-FI-NO-SE) +46 8 799 1926, (NO) 63791957, (ZA) 0800980782, (RO) 021 3361915, (IS) +354 5222700, (MD) +373 0800700 88, (BG) 02 40 24 500, (BIH) 033756000, (MNE) 020261920, (PL) 00800 77628282, (LT) +370 656 40111, (LV) +371 670 48400, (EE) +3726505555, (CZ) +420 233 325 614, (SK) +42153419601, (HU) 0620 770 7099, (HR) 0800 0009, (SI) 01/588 6800, (AZ) 99412 5990511, (UA) +380444909771 (ПРАТ "СAB 92) & +380442476704 (ТОВ «ІНБЕКТКОМ»), (KZ) +7 727 250 05 50, (TM) 00865 530070, (KG) 0312 41 77 04 (Apple City International), (TR) 0 850 502 61 40, (BG)02/40 24 500, (BIH) 38733756000, (UZ) 998 900123313 Asia (CN) 4008850883, (HK) 800-969-950, (TW) 0800-251-122, (AU) 1-800-239901, (NZ) 0800-44-6869, (KP) 080-393-3000, (SG) 800-120-5608, (TH) 001 800 852 6595, (VN) 120 11543, (MY) 1-800-81-5379, (ID)001-803-0167294, (PH) 1-800-1110-1392, (IN) 1800-120-7897

Section 2: HAZARD IDENTIFICATION

Product is a sealed article, not a mixture or substance. Exposure to contents inside the sealed battery will not occur unless the battery leaks, is exposed to high temperatures, or is mechanically abused.

Section 3: COMPOSITION

Applicable Battery Industry Standards	ANSI C18.1M Part 1, ANSI C18.1M Part 2, ANSI C18.4, IEC 60086-1, IEC 60086-2, IEC 60086-4
Description	Branded Consumer Battery
Battery Electro-Technical System	Alkaline Manganese Dioxide

COMPONENTS	INGREDIENTS	CAS NUMBER	Amount
Electrode – Negative	Zinc	7440-66-6	10-25%
Electrode – Positive	Manganese Dioxide	1313-13-9	35-40%
Electrolyte	Alkali Metal Hydroxide (aqueous potassium hydroxide)	1310-58-3	5-10%
Can	Nickel-plated Steel	12597-69-2	8-15%
Other Non-Reactive Materials			10-15%

COMPLIANCE	
Declarable substances (IEC 62474 Criteria 1)	None
Mercury Free Battery (ANSI C18.4M <5ppm) P.R.C. Provision on Mercury Content Limitation for Batteries (GB 8897.5-2013, MOD, Section 9.1(e))	No Mercury <div style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> 无汞 </div> No Mercury added.



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P.R.C. Mercury Free Battery (GB 24427-2021) < 1ppm	<div style="background-color: black; color: white; padding: 5px; display: inline-block; font-weight: bold; font-size: 1.2em;">无汞</div> Yes, No Mercury Added
Small Cell or Battery (ANSI C18.1M Part 2; IEC 60086-5)	Sizes: AAA and Specialty Cells fit inside a specially designed test cylinder 2.25 inches (57.1mm) long by 1.25 inches (31.70 mm) wide.

Section 4: FIRST AID MEASURES (In case of electrolyte leakage from the battery.)

Eye Contact	Flush thoroughly with copious amounts of running water for at least 15 minutes. Hold eyelids open to assure thorough flushing. Seek immediate medical attention.
Skin Contact	Immediately remove contaminated clothing and shoes while flushing with water. Continue to flush exposed skin with water for at least 15 minutes. Seek medical attention if irritation develops and persists. Launder contaminated clothing before reuse and discard shoes and other items that cannot be decontaminated.
Ingestion/Swallowed	Required for Small Cell or Battery (Sizes: AAA and Specialty Cells): Keep away from children. If swallowed, consult a physician immediately. Call National Battery hotline (800-408-8666).
Note to Physician	A damaged battery will release concentrated and caustic potassium hydroxide. For information on battery identification and treatment, call the 24- hour National Battery Ingestion Hotline (800-408-8666) . Additional treatment information is available from the National Capital Poison Control Center Button Battery Ingestion Triage and Treatment Guideline: https://www.poison.org/battery/guideline . An x-ray must be obtained right away to be sure that the battery has gone through the esophagus into the stomach. (if the battery remains in the esophagus, it must be removed immediately.) Do Not induce vomiting. Don't eat or drink until the x-ray shows the battery is beyond the esophagus. Watch for fever, abdominal pain, vomiting or blood in the stool. Report these symptoms immediately. Check the stool until the battery has passed.
Poison Center/North America	USA/Canada Calls Only: 1-800-498-8666 (Toll Free) [24-Hour National Battery Ingestion Hotline]
Poison Center World Directory	http://globalcrisis.info/poisonemergency.html#AAA
Inhalation	Contents of leaking battery may be irritating to respiratory passages. Move to fresh air. Seek medical attention if irritation persists.

Section 5: FIRE FIGHTING MEASURES

Substance or Mixture Specific Hazards	Batteries may rupture or leak if involved in a fire. Use any extinguishing media appropriate for the surrounding area.
Fire Fighting Measures	Remove container from fire area if this can be done without risk. Avoid inhaling the material or combustion products. Keep downwind and away from low areas.
Advice for Fire-Fighters	Large quantities of batteries involved in a fire will rupture and release caustic potassium hydroxide. Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Fight fire from a distance or protected area. Cool fire-exposed containers to prevent rupture. Do not breathe smoke, gases or vapors generated

Section 6: ACCIDENTAL RELEASE INFORMATION (In case of electrolyte leakage from the battery.)



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Spills of Large Quantities of Loose Batteries (unpackaged)	Notify spill personnel of large spills. Irritating vapors may be released from leaking or ruptured batteries. Spread batteries apart to stop shorting. Eliminate all ignition sources. Clean-up personnel should wear appropriate PPE to avoid eye and skin contact and inhalation of vapors or fumes. Increase ventilation. Carefully collect batteries and place in appropriate container for disposal. Remove any spilled liquid with absorbent material and contain for disposal.
Personal Precautions, Protective Equipment and Emergency Procedures	Clean-up personnel should wear appropriate protective clothing to prevent eye and skin contact and inhalation of dust. Ventilate area of spill. Avoid creating airborne dust. Eliminate all sources of ignition. Keep spilled material away from combustible materials.
Environmental Precautions	Avoid release to the environment without proper government permits. Prevent entry into storm sewers and waterways. Report spills as required by local and national regulations.
Methods and Material for Containment and Cleaning Up	Do not use combustible absorbents or dust control products. Carefully collect material with a scoop. Do not generate airborne dust. Place in appropriate container for disposal. Rinse the spill area with water after clean-up is complete. Collect rinse water for appropriate treatment and disposal. Remove any spilled liquid with absorbent material and contain it for disposal.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling	Do not short circuit, charge, dispose into fire or install incorrectly.
	Do not solder directly onto batteries.
	Do not mix different type or brand of batteries.
Conditions for Safe Storage, Including any Incompatibilities	Store in cool, dry place in original packaging. Do not store with acids. Store away from reducing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

This product is considered an article that does not release or result in exposure to a hazardous chemical under normal conditions of use. No engineering controls or personal protective equipment (PPE) is required.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical Description	Article
Chemical Properties	Not Applicable

Section 10: STABILITY AND REACTIVITY

Reactivity	Stable and Non-Reactive under 60°C.
Chemical Stability	Cells/batteries may explode or leak and cause burn injuries when recharged, burnt/incinerated, mixed with different types of batteries, inserted backwards into appliances, or disassembled.

Section 11: TOXICOLOGICAL INFORMATION

The chemicals in this product are contained in a sealed can and exposure does not occur during normal handling and use. Mercury, Lead and Cadmium are not used in the cell. (Note: If traces are found, they may be from impurity of the raw materials, not added as part of the recipe.)

Section 12: ECOLOGICAL INFORMATION



The chemicals in this product are contained in a sealed can and exposure does not occur during normal handling and use. Mercury, Lead and Cadmium are not used in the cell. (Note: If traces are found, they may be from impurity of the raw materials, not added as part of the recipe.)



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Section 13: DISPOSAL CONSIDERATIONS (GHS – Section 13)

Collect and Proper Disposal	Dispose of used (or excess) batteries in compliance with federal, state/provincial, and local regulations. Do not accumulate large quantities of used batteries for disposal as accumulations could cause batteries to short-circuit. Do not incinerate.
Requirements of EU	After use, the cells and/or batteries must be disposed separately from unsorted municipal waste and delivered to a commercial or authorized collection/recycling facility. 
Requirements of Brazil	After use, the cells and/or batteries must be delivered to the commercial establishment or authorized technical assistance network. 

Section 14: TRANSPORT INFORMATION

Regulatory Status	Alkaline cells and batteries (sometimes referred to as "Dry Cell" or "household" batteries) are not listed or regulated as dangerous goods under IATA Dangerous Goods Regulations, ICAO Technical Instructions, IMDG Code, UN Model Regulations, U.S. Hazardous Materials Regulations (49 CFR), and UNECE ADR.
UN Identification Number/Shipping Name	None - Not Required
Special Provisions (SP) Conformance	Special regulatory provisions require batteries to be packaged in a manner that prevents the generation of a dangerous quantity of heat and short circuits. Shippers can prepare batteries by taping the terminals, individually packaging batteries, or otherwise segregating the batteries to prevent risk of creating a short circuit. Batteries shipped in original unopened Duracell packaging is compliant.
US DOT SP	49 CFR 172.102 Special Provision 130
Air Transport IATA 64th edition, ICAO	Special Provision A123. NOTE: The words "NOT RESTRICTED" and "SPECIAL PROVISION A123" must be included on the description of the substance on the Air Waybill when air waybill is issued.
Marine/Water Transport (IMDG) SP	Not regulated by IMDG/IMO.
Emergency Transportation Hotline	CHEMTREC 24-Hour Emergency Response Hotline
	Within the United States, call: +703-527-3887
	Outside of the United States, call: +703-527-3887 (Collect)

Section 15: REGULATORY INFORMATION

GHS Article Exception	Section 1.3.2.1
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Section 16: OTHER INFORMATION

An alkaline battery is a safe consumable product under recommended or normal usage conditions. It is not a dangerous substance or mixture. There are no PSDS supply requirements for Alkaline batteries by the Globally Harmonized System (GHS). Duracell is providing this PSDS as a service to its customers and other users who may make use of alkaline batteries in the workplace. According to standard NR-26 "Safety Signaling", manufacturers or, in the case of import, suppliers of chemical products in the domestic market must make available the PSDS' of chemical products classified as non-hazardous, but whose intended or recommended uses may give rise risks to the safety and health of workers.

Disclaimer: This PSDS is intended to provide a summary of our knowledge and guidance regarding the use of this product. The information contained here has been compiled from sources considered by Duracell US Operations, Inc. to be dependable and is accurate to the best of the Company's knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations. This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. Duracell US Operations, Inc. assumed no responsibility for injury to the recipient or third parties, or any damage to any property resulting from the misuse of the product.

***** End of PSDS *****



GP Batteries

Material Safety Data Sheet for GP Cylindrical Alkaline Battery

Document Number: MAA100

Revision:30

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IDENTITY (As Used on Label and List)
Alkaline batteries
13A(LR20)/14A(LR14)/15A(LR6)/
24A(LR03)

Note: Blank spaces are not permitted if any item is not applicable or no information is available, the space must be marked to indicate that.

Section 1- Identification

Manufacturer's Name

GPI International Ltd.
Zhongyin (Ningbo) Battery Co., Ltd.

Telephone Number for information

852-2484-3111

Address (Number, Street, City State, and ZIP Code)

7/F, Building 16W, 16 Science Park West Avenue, Hong Kong Science Park, New Territories. H.K.

Date of prepared and revision

01 Jan, 2023

Signature of Prepare (optional)

Section 2 – Hazards Identification

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.)

Section 3 – Composition/Information on Ingredients

Ingredient	CAS#	EINECS No.	15A	24A	14A	13A
			(LR6)	(LR03)	(LR14)	(LR20)
Manganese Dioxide (MnO ₂)	1313-13-9	215-202-6	42.6	40.9	40.6	41.8
Zinc (Zn)	7440-66-6	231-175-3	16.1	14.8	16.0	17.4
Water (H ₂ O)	7732-18-5	231-791-2	12.2	11.7	11.0	11.1
Potassium Hydroxide (KOH)	1310-58-3	215-181-3	5.2	4.8	7.0	7.0
Graphite	7782-42-5	231-955-3	3.0	1.7	3.2	3.4
Brass	12597-71-6	603-111-8	2.4	3.0	1.2	0.8
Steel	7439-89-6	231-096-4	15.7	20.4	18.6	16.3
Ni-plating	7440-02-0	231-111-4	0.3	0.3	0.2	0.2
Nylon-66	32131-17-2	608-706-6	1.6	1.5	1.6	1.4
Fiber	None	None	0.9	0.9	0.6	0.6

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Section 4 – First Aid Measures

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 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.

Section 5 – Fire-Fighting Measures

Flash Point (Method Used)	Ignition Temp.	Flammable Limits	LEL	UEL
N.A.	N.A.	N.A.	N.A.	N.A.

Extinguishing Media

Carbon Dioxide, Dry Chemical or Foam extinguishers

Special Fire Fighting Procedures

N.A.

Unusual Fire and Explosion Hazards

Do not dispose of battery in fire - may explode.

Do not short-circuit battery - may cause burns.

Section 6 – Accidental Release Measures

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).

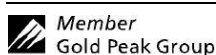
Section 7 – Handling and Storage

Safe handling and storage advice

Batteries should be handled and stored carefully to avoid short circuits.

Do not store in disorderly fashion or allow metal objects to be mixed with stored batteries.

Never disassemble a battery.



Manufacturer reserves the right to alter or amend the design, model and specification without prior notice.

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Do not breathe cell vapors or touch internal material with bare hands.

The cells and batteries shall not be stored in high temperature, the maximum temperature allowed is 60°C for a short period during the shipment, Otherwise the cells maybe leakage and can result in shortened service life.

Section 8– Exposure Controls / Person Protection

Occupational Exposure Limits: LTEP	STEP	
N.A.	N.A.	
Respiratory Protection (Specify Type)		
N.A.		
Ventilation	Local Exhausts	Special
	N.A.	N.A.
	Mechanical (General)	Other
	N.A.	N.A.
Protective Gloves	Eye Protection	
N.A.	N.A.	
Other Protective Clothing or Equipment		
N.A.		
Work / Hygienic Practices		
N.A.		

Section 9 - Physical / Chemical Properties

Boiling Point	N.A.	Specific Gravity (H ₂ O=1)	N.A.
Vapor Pressure (mm Hg)	N.A.	Melting Point	N.A.
Vapor Density (AIR=1)	N.A.	Evaporation Rate (Butyl Acetate)	N.A.
Solubility in Water	N.A.		
Appearance and Odor	Cylindrical Shape, odorless		

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Section 10 – Stability and Reactivity

Stability	Unstable		Conditions to Avoid
	Stable	X	

Incompatibility (Materials to Avoid)

Hazardous Decomposition or Byproducts

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section 11 – Toxicological Information

Route(s) of Entry	Inhalation?	Skin?	Ingestion?
	N.A.	N.A.	N.A.

Health Hazard (Acute and Chronic) / Toxicological information

In case of electrolyte leakage, skin will be itchy when contaminated with electrolyte.

In contact with electrolyte can cause severe irritation and chemical burns.

Inhalation of electrolyte vapors may cause irritation of the upper respiratory tract and lungs.

Section 12 – Ecological Information

N.A.

Section 13 – Disposal Considerations

Dispose of batteries according to government regulations.

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Section 14 – Transportation Information

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 GP alkaline batteries has been designed to be compliant with these regulatory concerns.

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 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 requirements contained in the following special provisions.

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 GP alkaline batteries are packed in such a way to prevent short circuits or the generation of dangerous quantities of heat and meet the special provisions listed above. In addition, the 2023 IATA 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.

Section 15 – Regulatory Information

Special requirements according to local regulations.

Section 16 – Other Information

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

Section 17 – Measures for fire extinction

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.