# **GP** Batteries

# Material Safety Data Sheet for GP Cylindrical Alkaline Battery

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IDENTITY (As Used on Label and List) Alkaline batteries 13A(LR20)/14A(LR14)/15A(LR6)/ 24A(LR03)/910A(LR1)/25A(LR8D425)	Note: Blank spaces are not permitted i applicable or no information is availabl marked to indicate that.	
Section 1- Identification		
Manufacturer's Name	Telephone Number for information	
GPI International Ltd. Zhongyin (Ningbo) Battery Co., Ltd.	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

CAS#		EINECS No.	Approximate Content (wt%)					
ingredient			15A (LR6)	24A (LR03)	14A (LR14)	13A (LR20)	910A (LR1)	25A (LR8D425)
Manganese Dioxide (MnO <sub>2</sub> )	1313-13-9	215-202-6	42.6	40.9	40.6	41.8	34.2	36.0
Zinc (Zn)	7440-66-6	231-175-3	16.1	14.8	16.0	17.4	13.5	17.0
Water (H <sub>2</sub> O)	7732-18-5	231-791-2	12.2	11.7	11.0	11.1	9.5	6.5
Potassium Hydroxide (KOH)	1310-58-3	215-181-3	5.2	4.8	7.0	7.0	4.2	1.3
Graphite	7782-42-5	231-955-3	3.0	1.7	3.2	3.4	3.0	2.3
Brass	12597-71-6	603-111-8	2.4	3.0	1.2	0.8	2.3	3.5
Steel	7439-89-6	231-096-4	15.7	20.4	18.6	16.3	29.5	30.0
Ni-plating	7440-02-0	231-111-4	0.3	0.3	0.2	0.2	0.3	0.6
Nylon-66	32131-17-2	608-706-6	1.6	1.5	1.6	1.4	2.9	2.2
Fiber	None	None	0.9	0.9	0.6	0.6	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

oection 5 – The Tighting Medsures					
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.

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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 / Per	son Pr	otection
Occupational	Exposure Limits: LTEP		STEP
N.A.			N.A.
Respiratory P	Protection (Specify Type)		
	N.A.		
Ventilation	Local Exhausts		Special
	N.A.		N.A.
	Mechanical (General)		Other
	N.A.		N.A.
Protective Glo	oves		Eye Protection
	N.A.		N.A.
Other Protect	tive Clothing or Equipment		
	N.A.		
Work / Hygier	nic Practices		
	N.A.		
Section 9 -	Physical / Chemical Pro	perties	
Boiling Point	······································	Speci	fic Gravity (H <sub>2</sub> O=1)
N.A.			N.A.
		Meltin	g Point
N.A.		-	N.A.
Vapor Density (AIR=1) Evapor N.A.		Evapo	oration Rate (Butyl Acetate) N.A.
Solubility in W			N.A.
	N.A.		
Appearance a			
		lindrical	Shape, odorless

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Section 10	0 – Stability and	Reactiv	/ity		
Stability	Unstable		Conditions to Avoid		
	Stable	х			
Incompatibili	ty (Materials to Avoid	)			
Hazardous D	Decomposition or Byp	roducts			
Hazardous Polymerizat ion	May Occur		Conditions to Avoid		
	Will Not Occur	х			
Section 1 <sup>°</sup>	1 – Toxicological	Inform	nation		
Route(s) of	Inhalati	on?	Skin?	Ingest	tion?
Entry			N.A.	N.A.	N.A.
Health Haz	ard (Acute and Chr	onic) / T	oxicological inform	ation	
In case of e	lectrolyte leakage,	skin will	be itchy when con	taminated with electro	olyte.
In contact w	vith electrolyte can	cause s	evere irritation and	chemical burns.	
Inhalation o	f electrolyte vapors	may ca	use irritation of the	upper respiratory tra-	ct and lungs.
Section 12	2 – Ecological In	formati	on		

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 64<sup>th</sup> 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
ΙΑΤΑ	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.

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