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)	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.	Emergency Telephone Number
Address (Number, Street, City State, and ZIP Code) 7/F, Building 16W, 16 Science Park West	Telephone Number for information 852-2484-3111 Date of prepared and revision
Avenue, Hong Kong Science Park, New Territories. H.K.	01 Jan, 2023
	Signature of Prepare (optional)

Section 2 - Hazards Identification

Classification

NΔ

Section 3 – Composition/Information on Ingredients

Ingredient	CAS#	EINECS No.				
ingredient			15A (LR6)	24A (LR03)	14A (LR14)	13A (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	8.0
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

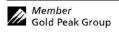
Section 4 - First Aid Measures

First Aid Procedures

If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately.

If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15) minutes and contact a physician.

If electrolyte vapors are inhaled, provide fresh air and seek medical attention if respiratory irritation develops. Ventilate the contaminated area.

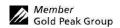




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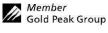
Section 5 - Fire-Figh	ting Measures				
Flash Point (Method Used)	Ignition Temp.	Flammable Limits	LEL	UEL	
N.A.	N.A.	N.A.	N.A.	N.A.	
Extinguishing Media				4	
Carbon Dioxide, Dry	Chemical or Foam extin	nguishers			
Special Fire Fighting Procedu	ures				
N.A.					
Unusual Fire and Explosion I	Hazards				
Do not dispose of batt	ery in fire - may explod	le.			
Do not short-circuit ba	attery - may cause burns	S.			
Steps to Be Taken in Case Ma	nterial is Released or Sp	illed			
Batteries that are leak	cage should be handled	with rubber gloves.			
Avoid direct contact	with electrolyte.				
Wear protective cloth	ning and a positive press	sure Self-Contained Bre	eathing Apparatus (SCB	5A).	
Section 7 – Handling	and Storage				
Safe handling and storage adv	vice				
Batteries should be	handled and stored care	efully to avoid short circ	cuits.		
Do not store in diso	rderly fashion or allow	metal objects to be mix	ed with stored batteries		
Never disassemble a	a battery.				
Do not breathe cell	vapors or touch internal	l material with bare han	ds.		
The cells and batter	ies shall not be stored in	n high temperature, the	maximum temperature	allowed is 60°C for a	
short period during	short period during the shipment, Otherwise the cells maybe leakage and can result in shortened service life.				





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Section 8	– Exposure Co	ntrols /	Person P	rotection		
Occupational Exposure Limits: LTEP N.A.			STEP			
		N	J.A.			
Respiratory I	Protection (Specify Ty	pe)		-		
	1	N.A.				
Ventilation Local Exhausts				Special		
		N.A.		N	J.A.	
	Mechanical (General	ral)		Other		
		N.A.		N	J.A.	
Protective Gl	loves			Eye Protection		
	N.A.			N	J.A.	
Other Protect	tive Clothing or Equip	ment				
	N.A.					
Work / Hygie	enic Practices					
	N.A.					
Section 9	- Physical / Che	emical	Properties			
Boiling Point				vity (H ₂ O=1)		
Vanor Pressur	N.A.		Melting Poir	nt	N.A.	
Vapor Pressure (mm Hg) N.A. Melting Poin			N.A.			
Vapor Densit				Rate (Butyl Acetate)	N.A.	
Solubility in V	Water N.A.					
Appearance a			~ · · · · ·	1.51		
Section 1	0 – Stability and	l React		al Shape, odorless		
Stability	Unstable	- Nouve	Conditions	to Avoid		
	Stable					
	Stable	X				
Incompatibili	ty (Materials to Avoid	1)				
Hazardous De	ecomposition or Bypro	oducts				
Hazardous Polymerizati on			Conditions	to Avoid		•
	Will Not Occur	X				
		t	t			





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Section 11 – Toxicological Information

Route(s) of Inhalation? Skin? Ingestion?

Entry N.A. 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.

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.

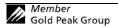
Alkaline batteries (sometimes referred to as "Dry cell" batteries) are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, the IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, IATA Dangerous Goods 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 dangerous quantities of heat and meet the special provisions listed above. In addition, the 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.







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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.

