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IDENTITY (As Used on Label and List)	Note: Blank spaces are not permitted if any item is not applicable or no
Zinc Chloride Batteries	information is available, the space must be marked to indicate that.
Section 1- Identification	
Manufacturer's Name	Emergency Telephone Number
GPI International Ltd.	
Address (Number, Street, City State, and	Telephone Number for information
ZIP Code)	852-2484-3333
7/F Building 16W, Science Park	
West Avenue Hong Kong Science Park,	Date of prepared and revision
New Territories , Hong Kong	Jan 1, 2018
	Signature of Prepare (optional)

Section 2 – Hazards Identification

Classification:

N.A.

ction 3 – Composition/Information On Ingredients						
Ingradiant	CAS №	EINECS	Content (w/w)			
Ingredient	CAS Nº	№	R03	R6	R14	R20
Manganese Dioxide	1313-13-9	215-202-6	23~28%	17~27%	17~ 29.5%	17.5~ 33%
Zinc	7440-66-6	231-175-3	34~38%	20~23%	17~20%	17~22%
Zinc Chloride	7646-85-7	231-592-0	4.0~6.0%	4.3~6.8%	6.0~8.0%	6.0~8.8%
Ammoniu m Chloride	12125-02-9	235-186-4	0.2~0.4%	0.2~0.7%	0.6~0.8%	0.3~0.9%
Acetylene Black	1333-86-4	215-609-9	3.7~4.7%	3.4~4.4%	4.0~5.0%	4.4~5.9%
Lead	7439-92-1	231-100-4	< 1500ppm	< 1000 ppm	< 1000ppm	< 1000ppm
Cadmium	7440-43-9	231-152-8	< 10 ppm	< 10 ppm	< 10 ppm	< 10 ppm
Mercury	7439-97-6	231-106-7	< 1 ppm	< 1 ppm	< 1 ppm	< 1 ppm

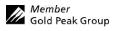
Section 4 – First Aid Measures

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		-L	<u> </u>	
Carbon Dioxide, Dry	Chemical or Foam exti	nguishers		
Special Fire Fighting Procedu	ares			
N.A.				
Unusual Fire and Explosion I	Hazards			
Do not dispose of batt	ery in fire - may explo	de.		
Section 6 – Accidenta Steps to Be Taken in Case Ma		ures		
Batteries that are leak	tage should be handled	with rubber gloves.		
Avoid direct contact	with electrolyte.			
Wear protective cloth	ning and a positive pres	sure Self-Contained Br	eathing Apparatus (S	SCBA).
Section 7 – Handling	and Storage			
Safe handling and storage adv	vice			
Batteries should be	handled and stored care	efully to avoid short cir	cuits.	
Do not store in diso	rderly fashion, or allow	w metal objects to be mi	xed with stored batte	eries.
Never disassemble	a battery.			

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..

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



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Section 8	– Exposure Cor	ntrols /	Person P	rotection		
Occupational	Exposure Limits:	LTEP		STEP		
N.A.			N.A.			
Respiratory F	Protection (Specify Ty)	pe)		-		
	Ν	J.A.				
Ventilation	Local Exhausts			Special		
	N.A.			N.A.		
	Mechanical (General)			Other		
	N.A.			N.A.		
Protective Gl	Protective Gloves		Eye Protectio	n		
N.A.				N.A.		
Other Protective Clothing or Equipment						
	N.A.					
Work / Hygie						
Work / Hygh	N.A.					
Section 0		mical	Droportios			
Section 9 - Physical / Chemical Properties Boiling Point Specific Gravity (H ₂ O=1)						
N.A.			N.A.			
= = = = = = = = = = = = = = = = = = = =		Melting Poin	ıt	NI A		
N.A. Vapor Density (AIR=1) Eva		Evaporation	N.A. Evaporation Rate (Butyl Acetate)			
N.A.		. ,	N.A.			
Solubility in V	Vater N.A.					
Appearance a						
			Cylindrica	l Shape, odorle	ess	
Section 1	0 – Stability and	React	ivity			
Stability	Unstable		Conditions	to Avoid		
	Stable					
		X				
Incompatibili	ty (Materials to Avoid)				
Hazardous De	ecomposition or Bypro	ducts				
Hazardous Polymerizati on	May Occur		Conditions	to Avoid		
	Will Not Occur	X				



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Section 11 – Toxicological Information

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

Health Hazard (Acute and Chronic) / Toxiclogical 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 Zinc Chloride Batteries has been designed to be compliant with these regulatory concerns.

Zinc Chloride 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 59th 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 Zinc Chloride 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 requirement be according to the local regulatories.

Section 16 – Other Information

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



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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.