

### Material Safety Data Sheet for GP Greencell (Carbon Zinc) Cylindrical **Battery**

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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		
Carbon Zinc 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:

Section 3 – Composition/Information On Ingredients						
Content (w/w)						
R03 R6 R14 R20						
~28% 17~27% 17~ 17.5~						
29.5% 33%						
~38% 20~23% 17~20% 17~22%						
-6.0% 4.3~6.8% 6.0~8.0% 6.0~8.8%						
4.5 -0.6% 0.0 -0.0% 0.0 -0.0%						
~0.4%   0.2~0.7%   0.6~0.8%   0.3~0.9%						
_						

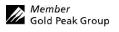
	Black	1333-86-4	215-609-9	3.7~4.7%	3.4~4.4%	4.0~5.0%	4.4~5.9%
	Lead	7439-92-1	231-100-4	< 1500ppm	< 1000	<	<
	Leau 7439-92-1 231		231-100-4	< 1300ppiii	ppm	1000ppm	1000ppm
	Cadmium	7440-43-9	231-152-8	< 10 ppm	< 10 ppm	< 10 ppm	< 10 ppm
	Mercury	7439-97-6	231-106-7	< 1 ppm	< 1 ppm	< 1 ppm	< 1 ppm
Section 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			Tr mr	T Y TO Y	
Flash Point (Method Used)	Ignition Temp.	Flammable Limits	LEL	UEL	
N.A.	N.A.	N.A.	N.A.	N.A.	
Extinguishing Media	1	<b>'</b>	1	-	
Carbon Dioxide, Dry	Chemical or Foam e	xtinguishers			
Special Fire Fighting Proced	ures				
N.A.					
Unusual Fire and Explosion	Hazards				
Do not dispose of batt	tery in fire - may exp	olode.			
Do not short-circuit b	attery - may cause bi	ırns.			
Section 6 – Accident	al Release Mea	asures			
Steps to Be Taken in Case M					

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.

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..



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Section 8	B- Exposure Co	ntrols /	Person P	rotection		
		LTEP		STEP		
N.A.				N.A.		
Respiratory l	Protection (Specify Ty	pe)				
	]	N.A.				
Ventilation Local Exhausts				Special		
N.A.		N.A. Other				
Mechanical (General)						
N.A.				N.A.		
Protective Gloves				Eye Protection		
N.A.				N.A.		
Other Protec	tive Clothing or Equip	ment				
	N.A.					
Work / Hygi	enic Practices					
,, 8-	N.A.					
Section 9	- Physical / Che	emical	Properties	8		
Boiling Point		Jiiii Gai		vity (H <sub>2</sub> O=1)		
N.A.		N.A.				
Vapor Pressure (mm Hg) N.A.		Melting Point N.A.				
			Evaporation	Evaporation Rate (Butyl Acetate) N.A.		
Solubility in	Water N.A.					
Appearance a						
			Cylindrica	al Shape, odorless		
Section 1	0 – Stability and	l React	ivitv			
Stability	Unstable		Conditions	to Avoid		
	Stable	X				
Incompatibili	ty (Materials to Avoid					
Hanandana D						
Hazardous D	ecomposition or Bypro	oducts				
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 59<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
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.