### **GP** Batteries Material Safety Data Sheet for GP Nickel Codmium Batter

### Material Safety Data Sheet for GP Nickel Cadmium Battery

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IDENTITY (As Used on Label and List) NiCd batteries	Note : Blank spaces are not permitted if any item is not information is available, the space must be marked to	11
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	
8/F GP Building, 30 Kwai Wing Road,		
	Date of prepared and revision	
Kwai Chung, N.T. H.K.	Jan 1, 2015	
	Signature of Prepare (optional)	

### Section 2 – Hazards Identification

Classification:

N.A.

### Section 3 – Composition/Information On Ingredients

Description:	Approximate % of total weight		
Lead	: <0.004	Wt%	
Mercury	: <0.0005	Wt%	
Cadmium Oxide	: <8-25	Wt%	
Nickel Hydroxide	:14%-21%	Wt%	
30%KOH solution (Potassium Hydroxide)	: 9-16%	Wt%	

### 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

#### contaminated area.

# Section 5 – Fire-Fighting MeasuresFlash Point (Method Used)Ignition Temp.Flammable LimitsLELUELN.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.

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### 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.

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  $60^\circ$ 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 Pr	rotection
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 Gloves N.A.			Eye Protection N.A.
Other Protect	ive Clothing or Equipment	N.A.	
Work / Hygie	enic Practices N.A.		
Section 9	- Physical / Chemical	Properties	
<b>Boiling Point</b>	<b>.</b>	Specific Grav	
e	N.A.	1	N.A.
Vapor Pressur	e (mm Hg)	Melting Point	t
N.A.			N.A.
Vapor Density	y (AIR=1)	Evaporation I	Rate (Butyl Acetate)
N.A.		_	N.A.
Solubility in V	Vater		
	N.A.		
Appearance an	nd Odor		
		Cylindrical	l Shape, odorless

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Section 10 – Stability and Reactivity			
Stability	Unstable		Conditions to Avoid
	Stable	Х	

Incompatibility (Materials to Avoid)

Hazardous Decomposition or Byproducts

Hazardous	May Occur		Conditions to Avoid
Hazardous Polymerizati			
on			
	Will Not Occur		
		Х	
Castien 11 Taviadaniad Information			

### Section 11 – Toxicological Information

Route(s) of EntryInhalation?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.

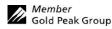
### Section 14 – Transportation Information

GP NiCd cylindrical cells/batteries are considered to be "dry cell" batteries and are unregulated for purposes of transportation by the U.S. Department of Transportation (DOT), International Civic Aviation Administration (ICAO), International Air Transport Association (IATA) Dangerous Goods Regulations 56<sup>th</sup> edition, the International Maritime Organization (IMO). (Alkaline batteries are not regulated for transportation as "DANGEROUS GOODS.")

IATA DGR: Special Provision A123: "Example of such batteries are: akali-manganese, zinc carbon. and nickel-cadmium batteries. Any electrical battery...having the potential of a dangerous evolution of heat must be prepared for transport as to prevent (a) a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals.) is forbidden from transport; and (b) accidental activation. The words "Not Restricted" and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6 when an Air Waybill is issued.

EU: As NiCd cylindrical cells/batteries are not explicitly mentioned in RID/ADR, there are no special Dangerous Goods shipment requirements for these products.

USA: 49 CFR § 172.102 Special Provision 130: "For other than dry battery specifically covered by another entry in the § 172.101 Table, "Batteries, dry" are not subject to the requirements of this subchapter when they are securely packaged and offered for transportation in a manner that prevents the dangerous evolution of heat (for example, by the effective insulation of exposed terminals) and protects against short circuits."



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### 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.

### 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.