

Material Safety Data Sheet for 9V Carbon Zinc & Zinc Chloride Batteries

Section 1 – Identification

IDENTITY (AS USED ON LABEL) Carbon Zinc Batteries	
MANUFACTURER – GPI International Ltd	
ADDRESS – 7/F. Building 16W, 16 Science Park West Avenue, Hong Kong Science Park. N.T. HK	TELEPHONE NUMBER FOR INFORMATION 00-852-2484-3333
	DATE OF REVISION – Jan 2016

Section 2 – Hazards Identification

Classification: N/A

Section 3 – Composition / Information On Ingredients

Hazardous Components:			
Description	Approximate % of total weight	CAS No.	Remark
Zinc Chloride (ZnCl ₂)	2-10 Wt%	7646-85-7	
Aluminium Chloride (NH ₄ Cl)	0-10 Wt%	12125-02-9	
Manganese Dioxide (MnO ₂)	25-35 Wt%	1313-13-9	
Zinc (Zn)	10-20 Wt%	7440-66-6	
Acetylene Black	5-15 Wt%	7440-44-0	

Section 4 – First Aid Measures

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

If electrolyte comes into contact with eyes, wash with copious amounts of water for 15 minutes and seek medical advice.

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

Section 5 – Fire Fighting Measures

Flash Point N/A	Ignition Temp: N/A	Flammable Limits: N/A	LEL N/A	UEL N/A
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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 have leaked should be handled with rubber gloves
- Avoid Direct contact with electrolyte
- Wear protective clothing and a positive pressure Self Contained Breathing Apparatus

Section 7 – Handling and Storage

Safe handling and storage advice

- Batteries should be handled and stored carefully to avoid short circuits
- Store carefully, not allowing metal objects to be mixed with stored batteries
- Batteries should never be taken apart
- Do not breath cell vapors or touch internal material with bare hands
- The cells and batteries must not be stored at a high temperature. The maximum safe temperature is 60C for a short period or during transportation. Otherwise, the cells may leak, resulting in a shortened service life.

Section 8 – Exposure Controls / Personal Protection

Occupation Exposure Limits: LTEP – N/A STEP – N/A		
Respiratory protection (specify Type) – N/A		
Ventilation	Local Exhausts – N/A	Special – N/A
	Mechanical – N/A	Other – N/A

Section 8 – Exposure Controls / Personal Protection (CONT'D)

Protective Gloves – N/A	Eye protection – N/A
Other Protective Clothing or Equipment – N/A	
Work / hygienic Practices – N/A	

Section 9 – Physical / Chemical Properties

Boiling Point – N/A	Specific Gravity (H2O-1 – N/A
Vapor Pressure (mm Hg) – N/A	Melting Point – N/A
Vapor Density (AIR=1) – N/A	Evaporation Rate (Butyl Acetate) – N/A
Solubility in Water – N/A	
Appearance and Odor	Rectangular Shape, Odorless

Section 10 – Stability & Reactivity

Stability	Unstable		Conditions to avoid
	Stable	X	
Incompatibility (Materials to Avoid)			
Hazardous decomposition or Bi-products			
Hazardous polymerization	May Occur		Conditions to avoid
	Will Not Occur	X	

Section 11 – Toxicological Information

Means of entry – Inhalation? n/a Skin? n/a Ingestion? n/a

- Health Hazard (Acute and Chronic)
- In case of electrolyte leakage, skin will be itchy when contaminated
- 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 in accordance with local government regulations

Section 14 – Transport Information

In general, all batteries must be packaged in a safe and responsible manner, regardless of method of transportation – ground, air, sea.

Regulatory concerns from all agencies for safe packaging requires that batteries, be packaged in a manner that prevents short circuit and be contained in “strong outer packaging” that prevents spillage of contents. All original packaging for GP Batteries, has been designed to be compliant with these guidelines.

Carbon Zinc batteries (also known as dry cell) 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 Goods Regulations, IATA Dangerous Goods regulations 57th edition, ICAO Technical Instructions and the US hazardous materials regulations (49CFR). 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 carbon zinc batteries are packed in such a way as to prevent short circuits or the generation dangerous quantities of heat and meet the special provision 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

Section 16 – Other Information

The data in this Material Safety Data Sheet relates only to the specific materials within the battery

Section 17 – Measures for fire extinguishing

In the case of fire, it is permissible to use any class of fire extinguisher, on these batteries or their packaging material. Cool the exterior of the batteries, where exposed to fire, in order to prevent rupture.

Fire fighters should wear self-contained breathing apparatus