GP Batteries

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

Document Number: MWW002 Revision: 1 Date of prepared: 7th Sep 2016

Batteries are articles under the Globally Harmonized System (GHS) and exempt from GHS classification criteria. The Safety Data Sheet (SDS) format requirement does not apply to articles such as batteries, as they do not result in exposure to hazardous chemicals under normal conditions of use. The purpose of this SDS is to provide information for the safety handling of the product.

Please follow the warnings and precautions listed below to avoid possible hazards from the improper uses of Batteries and to ensure correct and safe use of them. The following notes should be put in an appropriate and effective location for instruction. Failure to observe the following instructions may cause battery leakage, heat generation, explosion, or appliance trouble.

Remark: In accordance with OSHA standard 1910.1200 App D (USA)

Section I – Product and Company Identification

Information of Product

Product Identity (used on the label)	Carbon Zinc Batteries 9V

Information of Manufacturer

Manufacturer's Name GPI International Ltd.	**Emergency Telephone Number** Within USA & Canada call: +1-800-424-9300 Outside USA and Canada call: +1-703-527-3887
Address (Number, Street, City State, and ZIP Code) 7/F, Building 16W, 16 Science Park West Avenue Hong Kong Science Park, New Territories, Hong Kong	**Telephone Number for Information** +852-24843111
	Date of prepared and revised 7th Sep 2016

Recommended use of chemicals:

Don't directly connect (+) and (-) of a battery to make a short circuit. Don't disassemble, heat or put the battery into fire.

Section II – Hazards Identification

GHS Classification: N.A.

Improper handling of the battery could lead to distortion, leakage, overheating, or explosion and cause human injury or equipment trouble. Especially touch with liquid leaked out of battery could cause injury like a loss of eyesight. Please strictly observe safety instructions.

Under normal conditions of use, the battery is hermetically sealed and not classified as hazards. If the electrolyte is leaked, hazardous material may be released.

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Human Health Effects	
Inhalation	The electrolyte inhalation can cause respiratory irritation.
Skin contact	The electrolyte can cause skin irritation, chemical burns.
Eye contact	The electrolyte leaked from the battery cell can cause severe irritation and chemical burns.
Ingestion	If the battery is swallowed and opened, or the electrolyte is ingested, the electrolyte irritates the mouth and the throat seriously.

Environmental Effects

The battery cell remains in the environment. Do not throw it out into the environment.

Specific Hazards

As previously described.

Section III – Composition/Information on Ingredients

Ingredient	CAS No.	EINECS No.	Approximate %/wt
Manganese Dioxide	1313-13-9	215-202-6	40～50%
Zinc	7440-66-6	231-175-3	10～20%
Zinc Chloride	7646-85-7	231-592-0	2～5%
Ammonium Chloride	12125-02-9	235-186-4	10～20%
Acetylene Black	1333-86-4	215-609-9	5～15%
Water	7732-18-5	231-791-2	10～20%

Section IV – First-aid Measures

None unless internal materials exposure. If contents are leaked out, observe following instructions.

Inhalation	If electrolyte vapors are inhaled or electrolyte leakage occurs, provide fresh air and seek medical attention if respiratory irritation develops. Ventilate the contaminated area.
Skin Contact	If liquid solution from the battery comes out and contact with skin or clothes, flush out with clean water.
Eye Contact	If any liquid from the battery comes out and contact with eyes, flush out with clean water immediately for fifteen (15) minutes and consult a doctor or physicians.

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Ingestion	If swallowing a battery, consult a physician immediately. If contents come into mouth, immediately rinse by plenty of water and consult a physician.

Section V – Fire-fighting Measures

Extinguishing Media	Any class of extinguisher is effective.
Unusual Fire and Explosion Hazards	Acrid or harmful fume is emitted during fire.
Special Protective equipment and Precautions for fire-fighters	Fire fighters should wear self-contained breathing apparatus.

Section VI – Accidental Release Measures

Personal Precautions	**Eye Protection:** Wear safety glasses with side shields if handling an open or leaking battery. **Gloves:** Use rubber gloves if handling batteries that are leakage. Avoid direct contact with electrolyte.
Environmental precautions	Room ventilation may be required in areas where case material is released or spilled.
Containment and Clean Up	Battery materials should be collected in a leak-proof container.

Section VII – Handling and Storage

Handling	Never swallow. Never touch the liquid leaked out of battery. Never heat or expose to open flame. Never disassemble a battery. Keep the battery out of reach of babies or small children. Do not install the battery in the appliance in reversed positive (+) and negative (-) terminal connection. Do not use the batteries mixed with new battery, old battery or different type battery. Take out used batteries promptly from the appliance.

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	Do not expose the battery to rain or moisture. When not in use for a long time, take out the battery from the appliance and store in a cool dry place. Do not drop, give a strong shock or deform the battery. Do not solder the battery directly. Do not breathe cell vapors or touch internal material with bare hands.
Storage	Batteries should be stored carefully to avoid short circuits. Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries. The cells and batteries shall not be stored in high temperature ,the maximum temperature allowed is 60℃ for a short period during the shipment. Otherwise the cells maybe leakage and can result in shortened service life. Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries.

Section VIII – Exposure Controls/Personal Protection

Engineering Control

No engineering measure is necessary during normal use.

Exposure Control Limit

Common Chemical Name / General Name	OSHA PEL	ACGIH TLV
/	N.A.	N.A.

ACGIH TLV: American Conference of Governmental Industrial Hygienists Threshold Limit Value
OSHA PEL: Occupational Safety & Health Administration Permissible Exposure Limit

Personal protective equipment

Respiratory protection: N.A.

Hand protection: N.A.

Eye protection: N.A.

Skin and body protection: N.A.

Section IX – Physical and Chemical Properties

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Appearance Solid, Rectangular Shape	**Odor** Odorless **Odor Threshold** N.A.
pH **N.A.**	**Melting point/freezing point** N.A.
Initial boiling point and boiling range **N.A.**	**Flash point** N.A.
Evaporation rate **N.A.**	**Flammability (solid, gas)** N.A. **Upper/lower flammability or explosive limits** N.A.
Vapor pressure **N.A.**	**Vapor density** N.A.
Relative density **N.A.**	**Solubility** N.A.
Partition coefficient: n-octanol/water **N.A.**	**Auto-ignition temperature** N.A.
Decomposition temperature **N.A.**	**Viscosity** N.A.

Section X – Stability and Reactivity

Stability	Stable under normal use
Possibility of hazardous reactions	Carbon zinc batteries do not meet any of the criteria established in 40 CFR 261.2 for reactivity.
Conditions to avoid	Refer to Section VII
Materials to avoid	Conductive materials, water, seawater

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Hazardous decomposition products	Acrid or harmful fume is emitted during fire.

Section XI – Toxicological Information

Route of Entry

Inhalation	N.A.
Skin	N.A.
Ingestion	N.A.

Health Hazard (Acute and Chronic) / Toxicological Information

There is no toxicity data for Battery. Nontoxic, because the chemical mixture from battery is sealed by the metal container.

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 XII – Ecological Information

Persistence/degradability :

Since a battery cell and the internal materials remain in the environment, do not bury or throw out into the environment.

Section XIII – Disposal Considerations

The battery may be regulated by national or local laws/ regulations. Please dispose by following the instructions of proper regulation. As electric capacity is left in a discarded battery and it comes into contact with other metals, it could lead to distortion, leakage, overheating, or explosion, In case of storage or throw away the battery, insulate a terminal of the battery with a tape.

Section XIV – Transport 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 carbon zinc batteries has been designed to be compliant with these regulatory concerns.

Carbon zinc 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, 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

Form of Transportation	UN No.	UN Proper Shipping Name	Transport Hazard Class	Packing Group Number	Environmental Hazards	Guidance Transport in bulk	Special Precaution
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

All of carbon zinc 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.

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Section XV – Regulatory Information

National or local laws/ regulations applied to battery.

Section XVI – Other Information

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

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Manufacturer reserves the right to alter or amend the design, model and specification without prior notice.