

## MATERIAL SAFETY DATA SHEET

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product name: ZINC-CARBON BATTERY Model:  
R03,R6

Company:

Address:

Fax: :

Emergency Phone:

Date: 2020-01

### SECTION 2: INFORMATION ON INGREDIENTS

Important note:The battery should not be opened or burned.

Exposure to the ingredients contained with or their combustion products could be harmful.

Product name: ZINC-CARBON BATTERY

Ingredient	Concentration	CAS NO.	EC No.
Manganese Dioxide	48%	1313-13-9	215-202-6
Zinc Can	35%	7440-66-6	231-175-3
Carbon Rod	6.7%	7440-44-0	231-153-3
Coated Paper	1.3%	/	/
Label	1.2%	/	/
Graphite	3%	/	/
Seling Ring	4.8%	/	/

### SECTION 3: HAZARDOUS INGREDIENTS

Chemical,Nature:N/A

CAS-No/EINECSNO.:N/A

INCI CTFA - Description:non-rechargeable Carbon battery series

Hazard description:Do not dispose of in fire or short circuit.

### SECTION 4: FIRST-AID MEASURES

Under normal conditions of use, the battery is hermetically sealed.

**Ingestion:** Swallowing a battery can be harmful.

Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. If battery or open battery is ingested, do not induce vomiting or give food or drink. Seek medical attention immediately.

**Inhalation:** Contents of an open battery can cause respiratory irritation. Inhalation of vapors may cause irritation of the upper respiratory tract and lungs. Provide fresh air and seek medical attention.

Skin Absorption: Ethylene carbonate, diethyl carbonate and dimethyl carbonate may be absorbed through the skin causing localized inflammation.

**Skin Contact:** Contents of an open battery can cause skin irritation and/or chemical burns. Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention.

**Eye Contact:** Contents of an open battery can cause severe irritation and chemical burns.

Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.

Note: Acetylene black and cobalt compounds are listed as possible carcinogens by the International Agency for Research on Cancer (IARC).

## SECTION 5: FIRE FIGHTING MEASURES

In case of fire where battery is present, flood the area with water. If any battery is burning, water may not extinguish them, but will cool the adjacent battery and control the spread of fire. CO<sub>2</sub>, dry chemical, and foam extinguishers are preferred for small fires, but also may not extinguish burning battery. Burning battery will burn them out. Virtually all fires involving be controlled with water. When water is used, however, LITH-X (powdered graphite) or copper

powder fire extinguishers, sand, dry ground dolomite or soda ash may also be used. These materials act as smothering agents. Fire fighters should wear self-contained breathing apparatus. Burning Carbon battery can produce toxic fumes including HF.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Ventilation Requirements:** Not necessary under normal conditions.

**Respiratory Protection:** Not necessary under normal conditions.

**Eye Protection:** Not necessary under normal conditions. Wear safety glasses with side shields if handling an open or leaking battery.

**Gloves:** Not necessary under normal conditions. Use neoprene or natural rubber gloves if handling an open or leaking battery.

**Open Battery Storage:** Battery should not be opened. Should a cell become disassembled, the electrode should be stored in a fireproof cabinet, away from combustibles.

## SECTION 7 :HANDLING AND STORAGE

-Handling:

Do not place it near the boiler and radiator,nor expose to direct sun light.

Do not dispose of the fire and recharge,the battery,also short circuit is avoid,accidental short - circuit is Avoid,accidental short-circuiting or a few seconds will not seriously affect the battery.Do not disassemble or deform the battery.Should an individual cell within a battery become ruptured,do not allow contact with

water .

-Storage: Keep batteries between -30°C and 35°C for prolong storage.

Do not place it near the boiler and radiator,not expose to direct sun light.Do not dispose of the fire and recharge the battery,also short circuit is avoid.

## SECTION 8: EXPLOSURE CONTROL/PPE

Charging: N/A

Charging Voltages and Currents:N/A

Labeling:If the ATL label or package warnings are not visible,it is important to provide a package and /or device label stating:

WARNING:Do not dispose of in fire or short circuit.

Disposal:Dispose in accordance with all applicable federal,state and local regulations.

## SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Physical state	Solid	Solubility in water:	Not applicable
Color	White	Vapor pressure	Not applicable
Odor	No	Explosion limit	Not applicable
Flashpoint	Not Applicable	Auto flammability	Not applicable
Solubility in ethanol soluble	Not Applicable	Melting Point	Not applicable
Boiling Point	Not Applicable	Freezing Point	Not applicable

## SECTION 10:STABILITY AND REACTIVITY

Keep batteries between -30°C and 35°C for prolong storage.This product has no Significant reactivity hazard.

Reactivity:Avoid contact with water and acids.

Hazardous decomposition products:If plastic enclosure and AI foil of battery is damaged,the battery should avoid to contact strong oxidizer,acids and high temperature,and the electrolyte will be formed HF.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

Under normal conditions of use,the battery is toxicological sealed.So void to open and damage battery directly.Inhalation,skin contact and eye contact are possible when the battery is opened.Exposure to internal contents,the corrosive fumes will be very Irritation to skin,eyes and mucous membranes.Overexposure can cause symptoms of non- fibrotic lung injury and membrane irritation.

## **SECTION 12: ECOLOGICAL INFORMATION**

When promptly used or disposed the battery does not present environmental hazard.

When disposed,keep away from water,rain and snow.

If the battery is scrapped,it should be selected and disposed by professional company.

## **SECTION 13: DISPOSAL CONSIDERATION**

Do not dispose of battery into environment or sewerage.

It should be recycled and disposed basing on your local legislation and regulations.

## **SECTION 14: TRANSPORT INFORMATION**

Carbon batteries are considered to be “Dry cell” batteries and are unregulated for purposes of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO),international Air Transport.

Association(IATA) and International Maritime Dangerous Goods Regulations(IMDG).The only DOT requirement for shipping these batteries is special provision 130 which states: “Batteries,dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat ” (For example,by the effective insulation of exposed terminals).

The only requirements for shipping these batteries by ICAO and IATA is Special Provision A123 which states: “An electrical battery or battery powered device having the potential of dangerous evolutions of heat that is not prepared so as to prevent a short-circuit (e.g. in the case of batteries,by the effective insulation of exposed terminals;or in the case of equipment,by disconnection of the battery and protention of exposed terminals)is forbidden from transportation.”

As of 1/1/97 IATA requires that batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short-circuiting.

## SECTION 15: REGULATORY INFORMATION

### REGULATORY INFORMATION

#### Law Information

《Dangerous Goods Regulation》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《International Maritime Dangerous Goods》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《Classification and code of dangerous goods》

《Occupational Safety and Health Act》 (OSHA)

《Toxic Substances Control Act》 (TSCA)

《Consumer Product safety Act》 (CPSA)

《Federal Environmental Pollution Control Act》 (FEPCA)

《The Oil Pollution Act》 (OPA)

《Superfund Amendments and Reauthorization Act Title III(302/311/312/313)》 (SARA)

《Resource Conservation and Recovery Act》 (RCRA)

《Safety Drinking Water Act》 (CWA)

《California Proposition 65》

《Code of Federal Regulations》 (CFR)

In accordance with all Federal,State and Local laws.

## SECTION 16: OTHER INFORMATION

The information contained herein is furnished without warranty of any kind.Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and safety and health of employees and customers.

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