

广州市东力电池实业有限公司

GUANGZHOU EASTPOWER BATTERY IND. CO., LTD.

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Material Safety Data Sheet

1. Chemical Product and Company Identification

Product name: Zinc Carbon Battery
Manufacturer/Supplier: Guangzhou Eastpower Battery Ind.Co.,Ltd.
Xinzao Town, Panyu District, Guangzhou

File Number: EP120430

Contact Person: Ms Situ

Contact No: 86-20- 84256478

Date: 2012.4.30

Address: Xinzao Town , Panyu District , Guangzhou

2. Composition/Information on Ingredients

Unit:Gram

NO	TYPE Material Name	R20(PVC)
1	PVC	0.35
2	Low Polyethylene	0.39
3	Wood pulp paper	0.64
4	Zinc	14.3
5	Electrolytic Manganese	10.02
6	Carbon Rod	5.1
7	Zinc Chloride & Ammonium Chloride	11.94
8	Printing Ink	Small amount
9	Tinplate	2.21
10	Carbon Acetylene	4.22
Weight		78.0g

NO	TYPE	R6P(M)	R03P(M)	R6P(pvc)	R03P(pvc)	R03C(pvc)	R6C(pvc)
	Material Name						
1	Zinc Shell	4.06	2.42	4.13	2.67	2.28	3.89
2	Wood Pulp Paper	0.16	0.10	0.15	0.01	0.10	0.15
3	Bottom Bowl(Pulp Paper)	0.05	0.03	0.05	0.03	0.03	0.05
4	Plastic Bowl	0.08	0.03	0.08	0.03	0.03	0.08
5	Carbon Rod	1.03	0.51	1.03	0.53	0.53	1.03
6	Sealing Compound	0.05	0.04	0.07	0.05	0.05	0.07
7	Sealed Glue Stoppe	0.21	0.09	0.22	0.09	0.09	0.22
8	Positive Cap	0.25	0.13	0.27	0.14	0.14	0.27
9	Negative Bottom(Tinplate)	0.32	0.13	0.32	0.20	0.20	0.32
10	Transparent PVC	0.14	0.09	—	—	—	—
11	The Rubber Ring(top)	0.04	0.02	—	—	—	—
12	The RubberRing (bottom)	0.03	0.02	—	—	—	—
13	Metal Jacket	3.1	2.06	—	—	—	—
14	Color PVC Jacket	—	—	0.13	0.09	0.09	0.13
15	Electrolytic Manganese	3.61	1.73	3.61	1.90	1.78	3.68
16	Carbon Acetylene	0.68	0.33	0.66	0.36	0.33	0.67
17	Graphite	0.02	0.01	0.02	0.01	0.01	0.02
18	Zinc Oxide	0.01	0.01	0.01	0.01	0.01	0.01
19	Zinc Chloride	0.97	0.45	0.95	0.51	0.47	0.95
20	Ammonium Chloride	0.18	0.08	0.17	0.09	0.09	0.17

21	Deionized Water	2.33	1.09	2.27	1.22	1.12	2.29
Weight		17.32	9.37	14.14	7.94	7.35	14.00

The components in this section may only represent a hazard, if the batteries are damaged.

3. Hazards identification

Warning: When recharge batteries or discard in fire or use used battery with new one or connected improperly may cause battery vent leak or explode.

Damaged batteries may cause skin and eye burn, may cause respiratory tract irritation.

4. First-aid Measure

General speaking it is not expected to result in situation that requires first-aid measure, except the damaged batteries (due to improper handling) may cause batteries release the contents.

Inhalation: If vapour or fumes from vented or leaked batteries are irritating, move to fresh air and get medical attention.

Eyes: Check for and remove any contact lens, flush eyes with plenty of water, holding eyelids open, for at least 20 minutes, get medical help.

Skin: Immediately move the metal fragments and chemical components flush skin with plenty of water at least 15 minutes, get medical help, if necessary.

Ingestion: Get immediately medical attention, do not induce vomiting or give a liquid to an unconscious person.

5. Fire Fighting Measure

Extinguishing Media: Use appropriate agent for adjacent fire.

Flash Point: Not available

Auto-ignition Temperature: Not available

Flammable Limits: Not available

Combustion Products: Oxide of Zinc, Oxide of Manganese

6. Accidental Release Measure

Not Applicable

7. Handling and Storage

Precaution: Handling and transfer the products with care make sure the packing always in good condition.

Damaged packing may cause batteries contact together. In this case batteries may

short circuit or improperly connected, it cause batteries venting, leaking or exploding.

Storage: Store in a dry, cool and well ventilated area.

8. Exposure Controls/Personal Protection

Exposure control: if necessary, set local exhaust ventilation.

Personal protection: gloves, safety glasses, dust respirator.

9. Physical and Chemical Properties

Physical state and appearance: Solid

Melting point: Not available

Vapour pressure: Not available

Vapour density: Not available

pH(1% soln/water): Not available

Solubility: Insoluble

Volatility: Not available

Specific Gravity: (water=1) 1.54

Odour: Odourless

Taste: Not available

10. Stability and Reactivity

Stability: The product is stable

Instability Temperature: Not available

Incompatibility: Reactive with acids and alkalis

Corrosivity: None

Hazardous Polymerization: Will not occur

11. Toxicological Information

Note: Since the materials in this battery are sealed in the can, the potential for exposure to the components of the battery is negligible, when the battery is used as directed. However, technical or electrical abuse of the battery may result in the release of battery contents.

Toxicity to animals: Not available

Chronic effects on human: Not available

12. Ecological Information

This product has not been tested for environmental effects.

13. Disposal Consideration

Waste disposal: Consult your local or regional authorities.

Disposal may be subject national, state, or local laws.

14. Transportation Information

Eastpower batteries are considered to be “Dry cell” batteries and are unregulated for purpose 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 terminal).The only requirement 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 protection of exposed terminals) is forbidden from transportation. “ The International Maritime Dangerous Goods Code(IMDG) regulate them for ocean transportation under Special Provision 304 which says : “ Batteries, dry, containing corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to the provisions of this Code provided the batteries are securely packed and protected against short-circuits, Examples of such batteries are : alkaline-manganese, zinc-carbon, nickel metal hydride and nickel-cadmium batteries”

The requirements for shipping these batteries, in all modes of transportation, are that they be separated from each other to prevent short-circuit. Products must also be packed in strong packaging that can withstand the rigor normal to transportation.

15. Regulatory Information

Special requirement be according to the local regulations.

16. Other Information

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