

Zinc Air Button Cells

SAFETY DATA SHEET (according to 2001/58/EC)

Product: **ZINC AIR BATTERIES (Mercury Free)**

Date / released: 1 Sep 2018

1. Identification of the substance/preparation and company

Zinc Air Button Cells (1.4V): A675P; A675; A13; A312; A10

Contact:

MMD Hong Kong Holding Limited

Address:

Units 1006-7, 10/F, C-Bons International Center, 108 Wai Yip Street,
Kwun Tong, Hong Kong

2. Hazard Identification

We would like to inform our customers that these batteries are exempt articles and are not subject to the 29 CFR 1910.1200 OSHA requirements, Canadian WHMIS requirements or GHS requirements.

Emergency Overview

OSHA Hazards: Not Applicable.

Target Organs-not applicable GHS Classification: Not Applicable.

GHS Label Elements, including precautionary statement: Not Applicable.

Pictogram: Not Applicable.

Signal words: Not Applicable.

Hazard statements: Not Applicable.

Precautionary statements: Not Applicable.

3. Composition / Ingredients

Ingredient Name	CAS No.	%	TLV**/TWA
Zinc	7440-66-6	30~40	5mg/m3(ZnO,as Fume)
Steel	7439-89-6	30~40	---
SS- Nickel plating	7440-02-0	3~7	1.0 mg/m3(Elemental,TWA)
SS- Copper plating	7440-50-8	1~5	1.0 mg/m3(TWA)
Carbon Black	1333-86-4	1~3	3.5 mg/m3(TWA)
Potassium Hydroxide	1310-58-3	1~3	Solution Not Listed
Lead	7439-92-1	0.015-0.02	0.05 mg/m3(TWA)
Water, paper, plastic, other	N/A	Balance	Not Listed

* Source: OSHA 29 CFR1910.1000 Table Z-1 11-01-2012



4. First Aid Information

Threshold Limit Value(TLV) and Source: NA

Effects of Overexposure: None

Emergency First Aid Procedures:

After inhalation: Fresh air. Seek for medical assistance.

After skin contact: Flush affected areas with plenty of water. Remove contaminated cloth immediately. Seek for medical assistance.

After eye contact: Flush the eye gently with plenty of water (at least 15 minutes). Seek for medical assistance.

After ingestion: Drink plenty of water. Avoid vomiting. Seek for medical assistance. No trials for neutralization.

For more information, please visit:

<http://www.nema.org/Policy/Environmental-Stewardship/Documents/batteryingest.pdf> or

<http://buttonbatterysafety.com/>

5. Fire Fighting Measures

Flash Point	NA	Lower(LEL)	NA
Flammable Limits in Air(%)	NA	Upper(UEL)	NA
Extinguishing Media	Use water, foam or dry powder, as appropriate		
Auto-ignition	NA		
Special Fire Fighting Procedures	As with any fire, wear self-contained breathing apparatus to avoid in halation of hazardous Combustion products (See section 2)		
Special Fire Explosion Hazards	Like any sealed container, battery cells may rupture when exposed to excessive heat: this could result in the release of flammable or corrosive materials.		

6. Accidental Release Measures

Procedures to contain and clean up leaks or spills: In the event of a battery rupture, prevent skin contact and collect all released material in a plastic lined metal container.

Reporting Procedure: Report all spills in accordance with Federal, State and Local reporting requirements.

7. Handling And Storage

Handling And Storage: Store in a cool and dry place. Removal of sealing tab prior to use can result in reduced endurance time. Storing unsealed cells together could result in cell shorting and heat build-up. These batteries are manufactured in a charged state: also these are not assembled for recharging. Recharging can cause battery leak or, in some cases, rupture.

8. Exposure Control / Personal Protection

Respiratory Protection(Specify type)	NA	
Ventilation	Local Exhaust	NA
	Mechanical(General)	NA
	Special	NA
	Other	NA
Protective Gloves	NA	
Eye Protection	NA	
Other Protective Clothing	NA	

9. Physical And Chemical Properties

Boiling Point @ 760mm HG(°C)	NA (Not Applicable)
Vapor Pressure(mm Hg @ 25 °C)	NA
Vapor Density(Air=1)	NA
Density(gr/cc)	NA
Percent Volatile by Volume(%)	NA
Evaporation Rate(Butyl Acetate=1)	NA
Physical State	NA
Solubility in Water(% by Weight)	NA
PH	NA
Appearance and Odor	Geometric solid object: These batteries have 1~4 holes in the positive(+)end

10.Stability And Reactivity Data

Stable or Unstable	Stable
Incompatibility (Material to Avoid)	NA
Hazardous Decomposition Products	NA
Decomposition Temperature (°F)	NA
Hazardous Polymerization	Will not occur
Conditions to Avoid	Avoid electrical shorting, Puncturing or deforming

11.Toxicological Information

Under normal conditions (during charge and discharge) release of ingredients does not occur. If accidental release occurs see information in section 2, 3, and 4. Swallowing of a battery can be harmful. Call the local Poison Control Centre for advice and follow-up.

12.Ecological Information

Primary zinc air button cells can release small amounts of zinc oxide to the environment if abused and disposed of improperly. Small amounts of zinc could enter the storm water and affect gill breathing animals if a large quantity of damaged batteries were released.

Do not place in fire. Dispose of properly when discharged. Use a recycling outlet if available. Those collecting batteries should follow state and federal regulations.

Partially discharged damaged batteries can overheat and cause fires in the presence of other combustible materials.

13. Disposal considerations

USA: Primary zinc/air button cells are classified by the federal government as non-hazardous waste and are safe for disposal in the normal municipal waste stream.

In the European Union, manufacturing, handling and disposal of batteries is regulated on the basis of the DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC. Customers find detailed information on disposal in their specific countries using the web site of the European Portable Batteries Association:

(http://www.epbaeurope.net/legislation_national.html).

Importers and users outside EU should consider the local law and rules.

In order to avoid short circuit and heating, used zinc/air button cells should never be stored or transported in bulk. Proper measures against short circuit are:

- Storage of batteries in original packaging
- Coverage of the terminals

14. Transportation Information

Primary zinc/air button cells 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), the International Maritime Organization (IMO), the “Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route” (ADR) and the “Règlement concernant le transport international ferroviaire de marchandises Dangereuses” (RID).

IATA Special Provision A123:

“Examples of such batteries are: alkali-manganese, zinc-carbon, nickel-metal hydride 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.”

ADR/RID/IMDG Code

As primary zinc/air button cells are not explicitly mentioned in these Dangerous Goods regulations, there are no special Dangerous Goods shipment requirements for these products.

US DOT

49 CFR § 172.102 Special Provision 130: “Dry batteries not specifically covered by another entry in the §172.101 Table are covered by this entry (i.e., Batteries, dry, sealed, n.o.s.) and are not subject to requirements of this subchapter except for the following: [...] (b) Preparation for transport. Batteries and battery-powered device(s) containing batteries must be prepared and packaged for transport in a manner to prevent: (1) A dangerous evolution of heat; (2) Short circuits, including but not limited to the following methods: [...] (ii) Separating or packaging batteries in a manner to prevent contact with other batteries, devices or conductive materials (e.g., metal) in the packaging [...]; and (3) Damage to terminals. If not impact resistant, the outer packaging should not be used as the sole means of protecting the battery terminals from damage or short circuiting. Batteries must be securely cushioned and packed to prevent shifting which could loosen terminal caps or reorient the terminals to produce short circuits.”



IEC 60086-1

Code of practice for packaging and shipment of primary batteries given in IEC 60086-1:

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

Shock and vibration shall be kept to a minimum. For instance, boxes should not be thrown off trucks, slammed into position or piled so high as to overload battery containers below. Protection from inclement weather should be provided.

15. Regulatory Information

Primary zinc/air button cells are not classified as dangerous goods by the US department of Transportation or the major international regulatory bodies and are therefore not regulated.

SARA / TITLE III

As an article, this battery and its contents are not subject to the requirements of the emergency planning and community right-to-know act.

16. Other information

NA