GP Batteries

Material Safety Data Sheet for Manganese Dioxide Button Cell

Section 1- IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

	Date : Jan 01 2024
1.1Product identifier:	LR44、23A and other batteries
1.2Relevant identified uses of the substance or mixture and uses advised against:	N.A.
1.3 Details of the supplier of the safety data sheet:	Ningbo Biba Energy Co.,Ltd.
1.3.1 Responsible person:	Li gui ye
1.4 Emergency telephone number:	

Section 2 – Hazards Identification

2.1 Classification of the substance or mixture: N.A.

2.2 Label elements: N.A.

2.3 Other hazards: N.A.

Section 3 – Composition/Information On Ingredients

3.1 Substances:

3.2 Mixtures:

Description:	CAS Number	Approximate % of total weight	Classification according to Regulation (EC) No 1272/2008 (CLP)
Manganese dioxide	1313-13-9	~30%	N.A.
Zinc	7440-66-6	~10%	N.A.
Potassium Hydroxide and Sodium Hydroxide	/	~4%	N.A.
Distilled Water	7732-18-5	~7%	N.A.
Iron	7439-89-6	~46%	N.A.
Others	/	Balance	N.A.

Section 4 – First Aid Measures

4.1 Description of first aid measures:

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

4.2 Most important symptoms and effects, both acute and delayed:

If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen minutes, and contact a physician.

4.3 Indication of any immediate medical attention and special treatment needed:

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

Section 5 – Fire-Fighting Measures

5.1Extinguishing Media

Carbon Dioxide, Dry Chemical or Foam extinguishers

5.1.1 Suitable extinguishing media: Carbon Dioxide, Dry Chemical or Foam extinguishers

5.1.2 Unsuitable extinguishing media:

5.2 Special hazards arising from the substance or mixture: In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.

5.3 Advice for firefighters: Fire fighters should wear self-contained breathing apparatus.

Section 6 – Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Batteries that are leakage should be handled with rubber gloves.

Avoid direct contact with electrolyte.

Wear protective clothing and a positive pressure Self-Contained Breathing Apparatus (SCBA).

6.1.1For non-emergency personnel: N.A.

6.1.2For emergency responders: N.A.

6.2 Environmental precautions: N.A.

6.3 Methods and material for containment and cleaning up: N.A.

6.4 Reference to other sections: N.A.

Section 7 – Handling and Storage

7.1Precautions for safe handling:

Batteries should be handled and stored carefully to avoid short circuits.

Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries.

Never disassemble a battery.

Do not breathe cell vapors or touch internal material with bare hands.

7.2 Conditions for safe storage, including any incompatibilities: The cells and batteries shall not be stored in high temperature . Keep batteries between -30°C and 35°C for prolong storage. 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.

7.3 Specific end use(s):

Section 8– Exposure Controls / Person Protection

8.1 Control parameters:	N.A.
8.2 Exposure controls:	N.A.
8.2.1 Appropriate engineering controls:	N.A.
8.2.2 Individual protection measures, such as personal protective equipment:	N.A.
8.2.3Environmental exposure controls:	N.A.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:	N.A.
9.2 Other information:	N.A.
9.2.1 Information with regard to physical hazard classes:	N.A.
9.2.2 Other safety characteristics:	N.A.

Section 10 – Stability and Reactivity

10.1 Reactivity:

10.2 Chemical stability: stable

10.3 Possibility of hazardous reactions:

10.4 Conditions to avoid: 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.

10.5 Incompatible materials:

10.6 Hazardous decomposition products:

Section 11 – Toxicological Information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

11.1.1 Summaries of the information derived from the test conducted: N.A.

11.1.2 Relevant toxicological properties:

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.

11.1.3 Information on likely routes of exposure: N.A.

11.1.4 Symptoms related to the physical, chemical and toxicological characteristics: N.A.

11.1.5 Delayed and immediate effects as well as chronic effects from short and long-term exposure: N.A.

11.1.6 Interactive effects: N.A.

11.1.7 Absence of specific data: N.A.

11.1.8 Information on other hazards: N.A.

Section 12 – Ecological Information

12.1 Toxicity: N.A.

12.2 Persistence and degradability: N.A.

12.3 Bioaccumulative potential: N.A.

12.4 Mobility in soil: N.A.

12.5 Results of PBT and vPvB assessment: N.A.

12.6 Endocrine disrupting properties: N.A.

12.7 Other adverse effects: N.A.

Section 13 – Disposal Considerations

13.1 Waste treatment methods: Dispose of batteries according to government regulations.

13.1.1 Information regarding the disposal of the product: Dispose of batteries according to government regulations.

13.1.2 Information regarding the disposal of the packaging: Dispose of batteries according to government regulations.

13.1.3 Physical/chemical properties that may affect waste treatment options shall be specified:

13.1.4 Sewage disposal:

13.1.5 Special precautions for any recommended waste treatment: N.A.

Section 14 – Transportation Information

14.1 UN number or ID number: Not regulated

14.2 UN proper shipping name: Not regulated

14.3 Transport hazard class(es): Non-dangerous goods

14.4 Packing group:

14.5 Environmental hazards: N.A.

14.6 Special precautions for user: N.A.

14.7 Maritime transport in bulk according to IMO instruments:

Section 15 – Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: Special requirement be according to the local regulatory.

15.2 Chemical safety assessment: N.A.

Section 16 – Other Information

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

Battery name	Model No.	IEC
Alkaline zinc manganese button battery	A76 / A76P	LR44
	162	LR58
	164	LR621
	171	LR69
	177	LR626SW
Alkaline zinc manganese button battery	186	LR1142
Alkaline zinc manganese button battery	189	LR54/LR1130
	189E	LR54
	191	LR1120
Alkaline zinc manganese button battery	192	LR41
	PX625A	LR9
	10A	\
High voltage alkaline battery	11A	\
High voltage alkaline battery	23A	\
	23AE / 23AL	8LR932
High voltage alkaline battery	29A	\
	26A	\
High voltage alkaline battery	27A	\
	476A	4LR44
	220A	10F15