MSDS

Chemical Safety Technical Specification

Sample name : mercury free lead - free alkali manganese button battery

Model : LR41 , LR626 , LR1130 , LR44

Organizer Name: Huizhou chuangguan Electronic Technology Co. Ltd.

Tel: 07526911021 Fax: 0752-6911020

Address: No. 1 road, Shiwan Town, Boluo County, Huizhou, Guangdong

Chemical Safety Technical Specification

Item 1: chemical name and manufacturer information

Mercury-free lead-free alkaline manganese button battery

Model : LR41 , LR626 , LR1130 , LR44

Battery specification: 1.55V

Manufacturer : Pioneer Electronic Technology Co . , Ltd .

Address: No. 1 road, Shiwan Town, Boluo County, Huizhou, Guangdong

Postcode: 516127

TEL：0752-6911021

FAX：0752-6911020

Emergency Contact No . : 134 30009110

Item 2: hazard information

Risk Category : It is inherently non - toxic , but it may be dangerous to come into contact with ingredients or contain components thereof .

Means of invasion:

Skin contact: there is no danger during normal use, but contact with battery electrolyte may cause severe irritation or burns.

Eye contact: there is no danger in the normal use process. But contact with battery electrolyte can stimulate or burn the eyes. It may even damage the eyes.

Inhalation : The use process is not dangerous . However , the vapor or heated released gas that leaks through a large number of cells stimulates the respiratory tract and eyes .

Ingestion: internal chemical intake may cause irritation and injury to the mouth, throat, and large intestine. Seek medical attention immediately.

Health hazard : The battery pack is stored in a closed space . When the battery is abused or a mechanical collision occurs , it may cause leakage of chemicals in the battery . The skin and eyes should avoid contact with the electrolyte or the extruded battery .

Environmental hazards: the components or products containing this component may be harmful to the environment.

Explosion danger: if a fire is heated and the gill gas and flammable gas are discharged around, it may explode.

Third items: composition information

chemical composition

chemical name	molecular formula	CAS	ratio of constituents
manganese bioxide	MnO2	1313-13-9	
zinc (Zn)	Zn	7440-66-6	
iron	Fe	7439-89-6	
caustic potash	KOH	71769-53-4	
black lead	C	7782-42-5	
water	H_2O	7732-18-5	
nylon 66	--	32131-17-2	
lack of mutual understanding	--	--	
other	--	--	

4th: first aid measures

the battery is not in contact with the eye and skin under normal circumstances . When the housing is damaged , the battery cannot be used and touched .

The battery is generally safe except for leaks and fires.

When exposed to such batteries, the following measures are taken:

Skin contact: wash with plenty of soap and water. Seek medical attention if skin irritation occurs.

Eye contact: lift eyelids, rinse with flowing water or saline. Consult a doctor.

Inhalation: quickly leave the scene to fresh air. Keep the respiratory tract clear. If breathing difficulties, give oxygen. See a doctor.

Ingestion: gargle with water and seek medical attention immediately.

5th: fire measures

Hazard characteristics: high heat, flames, and possible explosions.

Harmful combustion products: carbon monoxide, carbon dioxide, metal oxide, irritant smoke and so on.

Fire extinguishing method and fire extinguishing agent: personnel must wear filtermask (full cover) or isolated respirator, wear whole body fire protective clothing, fire in the wind. As far as possible the containers from fire to open. Avoid using water or foam directly in the material of the molten incineration, so may be the spread of fire.

Fire extinguishers: dry powder, carbon dioxide, sand.

6th: emergency response to leakage

Personal protective measures: if harmful material inside the battery is leaking, evacuate the site quickly until the smoke dissipates. Provides maximum ventilation to remove harmful gases. The preferred response is to leave the area. Avoid contact with the skin and eyes or inhalation of harmful gases. If the battery leaks, the liquid can be absorbed by less soil, other contaminated areas should be ventilated.

Environmental considerations: avoid discharge into the environment and try to keep away from clean water.

Item 7 : Operation and storage

Precautions: avoid mechanical damage or battery power abuse. Do

not short the battery.

Do not impact or pierce the battery, or immerse the battery in the liquid. Do not disassemble the battery or put the battery in the fire. Do not store it with the metal or short the positive and negative pole.

Storage precautions: store in a cool, dry and ventilated environment with little change in temperature. Do not store batteries in hot, fireproof places. Do not be exposed to direct sunlight for long periods of time.

8th: contact control and personal protective measures

Maximum allowable concentration: no standard established

Monitoring control: none

Engineering control: provide adequate exhaust air.

Respiratory system protection: it is not necessary to use normally. In case of electrolyte leakage in the battery case, chemical resistant rubber mask should be worn. If the battery is burning, it should leave the area immediately.

Eye protection: normal conditions are not required. If the battery is leaked or ruptured during the handling process, the approved chemical work or eye mask protection is used.

Skin protection: there is no need to protect skin in normal use. Rubber apron is used to deal with broken batteries in case of leakage or rupture of batteries.

Hand protection: no need for protection under normal conditions. For electrolyte overflow, use 0.015 inches or more of PVC Chloroprene and Glove for protection.

Other protection: chemical resistant clothing, and the suggestion of eye washing station and safety shower should be used. Hygienic habit of work: develop good hygienic habits. After cleaning up the leakage battery, it can be eaten after washing. In battery storage area, you should not drink, eat, smoke and so on.

9th: physical and chemical properties

Appearance: solid.

Color: silver shell.

smell : smell - free .

Item 10 : Stability and Reactivity

Stability : steady state stability

banned substances : strong oxidizing agents , reducing agents , acids and bases .

Avoid contact conditions: source of fire, high temperature.

Hazard of polymerization: no

Decomposition products: the battery combustion process will produce carbon dioxide and other hydrogen fluoride.

The eleventh item: toxicology information

Acute toxicity: there is no known significant impact and danger in normal use.

Subacute and chronic toxicity: there are no known significant effects and risks in normal use.

Irritation: battery electrolyte has a certain irritation.

Sensitization: there are no known significant effects or risks in normal use.

Mutagenicity: there is no known significant impact and danger in normal use.

Carcinogenicity: there are no known significant effects or risks in normal use.

Other : The substance in the battery is sealed , and when the user uses the instructions for use , the potential for solution leakage in the battery can be ignored . However , battery abuse will likely lead to leakage of the solution in the battery .

12th items: ecological information

Ecotoxicity: there is no known significant impact and danger.

Biodegradability: unrelated data.

Non-biodegradability: no relevant data.

Bioaccumulation or bioaccumulation: unrelated data.

Other harmful effects: no known significant effects and dangers.

13th items: waste disposal

Waste disposal method :

A. disposal batteries should be handled professionally, professional processing companies or federal, state and local requirements for hazardous waste disposal and hazardous waste transportation.

B. incineration should not be carried out with used batteries. The battery contains recyclable materials. It provides recycling in your local area.

Options should be considered for disposal through a licensed waste carrier when the product is discarded.

The battery should have its own terminal insulation guard to prevent short circuiting.

Note: please consult the local or regional government for disposal that may be subject to national, state or local laws.

Fourteenth items: Transport Information

Dangerous goods number: none

UN number: no

Packing marks : None

Packing method: none

Mode of transportation: no

Matters of attention to transportation:

These batteries are classified as alkaline manganese "dry cells" and should not be transported as category 9 harmful substances. Alkaline manganese dry batteries are classified as non-dangerous goods. The "dry cells" are transported outside the DOT of the United States Department of Transportation. General Administration of International Civil Aviation (ICAOA). The only requirement for these batteries is that the Ministry of Transport special regulation 130 states: "dry batteries are not subject to this section. As long as they have measures to prevent overheating (e. G. Terminal exposure to the formation of effective insulation.

The only requirement for ICAO and IATA to transport these batteries is special provision A123, which states that "the battery does not have measures to prevent short-circuiting and has the potential for thermal

hazard evolution (for example. Batteries are prohibited from transport by exposing effective insulation at the terminal: or by disconnecting or protecting exposed terminals in equipment.

IMDG Marine Transport Special Regulation 304: "dry batteries containing corrosive electrolytes are batteries that do not flow out." If the battery breaks, it does not meet this requirement: battery safe packaging and protection to prevent short circuit. "

This battery examples are: alkaline manganese, zinc, carbon, nickel cadmium and nickel metal hydride.

Item 15th: regulatory Information

Code Information: ISO 11014-2009 Chemical Safety Information sheet content and item order.

Regulation (EC) No . 72 / 2008 , labels and packaging of substances and mixtures .

Item 16th: other information

The above information is based on the accuracy of the data, as this information may be applied or modified in circumstances beyond our control. We are not responsible for this. This information is configured if the addressee determines the exclusive purpose of the material.

Photos of samples sent for inspection

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