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MATERIAL SAFETY DATA SHEET

1. Identification

Product Name: Lifejacket light

Product Type: LNK-SL3 / LNK-SL3W

Main Component / Parts: Plastic shell, PCB, Metal Spring, AAA Alkaline battery*2

Supplier's Name: XIMEN LONAKO INDUSTRY & TRADE CO., LTD

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2. Important Composition /Information on Ingredients:

Component: Alkaline batteries Type: LR03(AAA)

Chemical Nature: Alkaline Manganese Dioxide

CAS-No/EINECS NO.: Graphite (CAS# 7782-42-5)

POTASSIUM HYDROXIDE(CAS# 1310-58-3)
MANGANESE DIOXIDE (CAS# 1313-13-9)
ZINC(CAS# 7440-66-6)
Dangerous ingredients which have to be mentioned acc. To 99/45/EEC and it adaptations

Component	Content(%wt)	CAS No	Appearance	Odor	Corrosion	Toxicity	Flammability
Zinc	16-18.0	7440-66-6	Metal Can	None	None	None	None
Manganese Dioxide	42-45.0	1313-13-9	Black-brown Powder	None	N/A	N/A	N/A
Graphite	2.5~3.5	7782-42-5	Black Solid	None	None	N/A	N/A
Potassium Hydroxide	9.0~12.5	1310-58-3	White solid	None	Strong Corrosion	N/A	N/A
Iron	16-20	7439-89-6	Metal Solid	None	None	None	None
Water	7.8~10.7	7732-18-5	Liquid	None	None	None	None
Brass	0.8-1.2	86376-49-0	Plate	None	None	None	None
Plastic	1.7-2.4	9003-35-4	Solid	None	N/A	N/A	N/A

3. Hazards identifications

General

The battery should not be opened or discarded in fire or recharged or used improperly, or it could exposure. The ingredient and their combustion could be harmful .

Material or Ingredient	PEL (OSHA)	TLV (ACGIH)
Graphite	15.0mg/m^3 TWA (total dust)	2.0mg/m^3 TWA (respirable

	5.0mg/m³ TWA (respirable fraction)	fraction)
Potassium Hydroxide	None established	2.0mg/m³ CEILING
Manganese Dioxide	5.0mg/m³ CEILING (as Mn)	0.2mg/m³ TWA (as Mn)
Zinc	15.0mg/m³ TWA (Total dust as particulates not otherwise regulated) 5.0mg/m³ TWA (Respirable fraction as particulates not otherwise regulated)	10.0mg/m³ TWA (Inhalable particulate) 3.0mg/m³ TWA (Respirable particulate)

The Common known rules for handing of chemicals should be obeyed. Do not eat drink the product.

Physical-Chemical Hazards: This preparation is not classified as dangerous according to the criteria of directive 99/45/EEC

Hazards to man: This is preparation is classified Xi, N R38-43 according to the CE directive , May cause sensitization by skin contract

Hazards to environment: When spilled, this product may raze the surface of plastic, leather and paint, underground and surface water.

4. First –aid measures:

Inhalation: In case of excessive inhalation remove the person to fresh air and at rest Obtain medical advice.

Skin Contact: Remove contaminated clothing. Wash affected areas with plenty of water and soap. If irritation occurs, consult a physician.

Eye contact: Rinse eyes immediately with running water for at least ten minutes. Consult an ophthalmologist.

Ingestion: Rinse mouth with water. Give plenty of water to drink. Do not induce vomiting. Obtain medical advice.

5. Fire-fighting measures

Suitable extinguishing media: Carbon dioxide (CO2), foam, dry chemical powder.

Extinguishing media not to be used: Never use a direct water jet.

Exposure hazards from combustion products: In case of fire, carbon dioxide, carbon monoxide and other toxic organic substances will be generated. Do not inhale fumes and smoke.

Personal protective equipments: Wear full protective clothing. Use self contained breathing apparatus.

Remark: Because of only keep about 10ml auto

perfume in care. Even if fire, It ca be extinguished by car extinguisher.

6. Accidental release measures:

Personal precautions persons away. Wear protective clothing. Keep unprotected

Environmental precautions: Avoid discharge and penetration into sewerage systems, waterways, pits, and cellars.

Methods for cleaning up: Collect spilled material with an insert standard absorbent like sand or silica. Care for well-Ventilated conditions. Recycle or dispose of the materials in an appropriate way.

7. Handling and storage

General Obey the common known rules and precautions for handling with chemicals.

Fire/Explosion protection Product vapors and oxygen/air may lead to potentially explosive mixtures. Keep ignition sources away. Do not smoke. Avoid electrostatic charge. Provide fire extinguisher.

Handling: Accidental short circuit for a few seconds will not seriously affect the battery. But prolonged short circuit will cause the battery to lose energy, and can cause the safety release vent to open. Sources of short circuit include jumbled batteries in bulk containers, metal jewelry, metal covered tables or metal belts used for assembly of batteries in devices.

Charging: This battery is not designed for recharging. Recharging can cause battery leakage or high pressure rupture, in some cases. Inadvertent charging can happen if a battery is installed backwards.

Storage: Store product in well-filled, appropriate coated and tightly closed containers avoiding influence of oxygen/air, light and humidity .Store at a cool and constant temperature.

Disposal: Dispose in accordance with all applicable federal, state,

and local regulations. Appropriate disposal technologies include incineration and landfill.

8. Exposure controls/Personal protection

Exposition/ Technical measures Atmospheric vapor concentrations must be minimized by adequate ventilation.

Protection of hands, eyes and skin: To protect hands, eyes and skin, the use of appropriate chemical resistant glovers, safety glasses and suitable protective clothing is strictly recommended.

9. Physical and chemical propertied

Physical state	Solid	Solubility in water	soluble
Color	Any colors	Vapor pressure	no applicable
Odor	COOL COLOGNE Smell	Explosion limit	not applicable
pH value	not determined	Oxidizing properties	not applicable
Specific gravity	0.990-1.040 (at 25oC)	Flashpoint	not determined
Refractive index	1.480-1.515 (at 20oC)	Auto flammability	not determined
Solubility in ethanol	soluble	Partition coefficient	not determined
Melting Point	not applicable	Boiling Point	not determined
Freezing Point	not determined		

10. Stability and Reactivity

Good stability at standard temperature. Avoid temperatures above or close to the flash point. Never heat sealed containers. This product presents no significant reactivity hazard, by itself or in contact water.

Reactivity: Avoid contact with acids. Alkali or strong oxidizing agents.

Hazardous decomposition products: carbon monoxide and unidentified organic compounds my be formed during combustion.

11. Toxicological information

The product is multi component mixture for which no toxicological date exists.

This preparation is classified XI, N R38-43.

12. Ecological information

In general, no ecological date is available for preparations.

Precautions Avoid disposing into drainage systems and in the environment.

13.Disposable considerations

Don not dispose of into environment or into sewerage. If recycling is not possible, the product and its container have to be disposed of in accordance with your local legislation and regulations. Alkaline batteries, 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.

14. Transport Information

Must have the strong packaging to prevent short circuit
The battery must comply with IATA (63rd Edition 2022) and IMDG 2018 Edttion (Amdt 39-18).
This production is not hazardous under the applicable dot icao/iata, or IMDG regulation.
Alkaline batteries are considered "dry cell", comply with Special Provisions A123 under the IATA DGR. Non-Hazardous for Sea Transport: Non-hazardous for sea transport.

15.Regulatory Information

Symbol: N/A

Contains: Expiration date is on the battery bottom.

R/S-Phrases:

R38	Irritation to skin
R43	May cause sensitization by skin contact
S2	Keep out of reach of children
S24	Avoid contact with skin
S37	Wear suitable gloves
S61	Avoid release to environment. Refer to special instructions.

16.Other information

The information on this Material Safety Date Sheet (MSDS) was obtained form current and reputable sources. However, the data is provided without any warranty; expressed or implied, regarding its correctness or accuracy. It is the user's responsibility to assume liability on loss, injury, damage, or expense resulting from improper use of this product. Any previous MSDS of this product mentioned above are hereby replaced with this new document. We urge you to make this information available as appropriate in your organization and to any others with whom you arrange to handle this product.

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.