

PRODUCT SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Name **MOB ALERTING UNITS**

PLB8-LR SOS NON-DETACH
PLB8-LR SOS DETACH
PLB8-LD SOS NON-DETACH
PLB8-MS SOS NON-DETACH
ISPLB8X NON-DETACH – ATEX APPROVED (Intrinsically safe)
ISPLB8X DETACH – ATEX APPROVED (Intrinsically safe)
ISPLB8 NON-DETACH
ISPLB8 DETACH

Manufacturers Name **MARINE RESCUE TECHNOLOGIES LTD**

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Description Lithium powered MOB Alerting Units are designed to be stored for up to five years before use. The battery cells are hermetically sealed. Pressurised primary lithium/iron disulphide and as supplied are protected by a moulded plastic casing. In this state the units constitute no definable hazard to health. However disassembly, abuse or destruction of the battery cell will expose the contents and the following health and safety hazards.

SECTION 2: COMPOSITION/INFORMATION on INGREDIENTS

CHEMICAL NAME	CAS#	EXPOSURE LIMITS	PERCENT Of CONTENT
Manganese Dioxide, MnO ₂	1313-13-9	None Listed	35 – 40
Lithium Metal, Li	7439-93-2	None Listed	1 – 4
Propylene Carbonate C ₄ H ₆ O ₃	108-32-7	None Listed	8 -10
1,3-Dioxolane, C ₃ H ₆ O ₂	646-06-0	None Listed	5 – 9
Lithium Hexafluoroarsenate, LiAsF ₆	29935-35-1	As:.01 mg/m ³	1 – 4

Important Note: The materials in this section may only represent a hazard if the integrity of the battery is compromised or if the battery is physically or electrically abused, The protective / seal outer case in which the battery is housed is designed to prevent this from happening.

SECTION 3: HAZARDS IDENTIFICATION

Emergency overview: May leak and / or flame if opened, recharged, connected improperly, Or disposed of in fire

Potential health effects: Skin contact with may cause irritation and absorption. Contact with raw lithium may cause burns.

Routes of entry: Inhalation or ingestion of electrolyte may have toxic effects.

Acute exposure: Electrolyte may irritate skin and eyes.

Effects of chronic exposure: Electrolyte contains a teratogen.

SECTION 4: FIRST AID MEASURES

Electrolyte Contact:

Skin- Immediately flush with plenty of water for at least 15 minutes. If symptoms are present after flushing, get medical attention.

Eyes- Immediately flush with plenty of water for at least 15 minutes and get medical attention

Lithium Metal Contact:

Skin- Remove particles of lithium from skin as rapidly as possible. Immediately flush with plenty of water for at least 15 minutes and get medical attention.

Eyes- Immediately flush with plenty of water for at least 15 minutes and get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media:

Copious amounts of cold water are an effective extinguishing medium for lithium batteries.

Do not use warm or hot water.

Do not use halon type extinguishing material.

Fire Fighting Procedures:

Use a positive pressure self-contained breathing apparatus if batteries are involved in a fire.

Full protective clothing is necessary.

During water application, caution is advised as burning pieces of lithium may be ejected from the fire.

Unusual Fire and Explosion Hazards:

Batteries may flame or leak potentially hazardous organic vapours if exposed to excessive heat or fire.

Hazardous Combustion Products:

Fire or excessive heat may produce hazardous decomposition products.

Damaged or opened batteries can result in rapid heating and the release of flammable vapours.

Vapours are heavier than air and may travel along the ground or be moved by ventilation to an ignition source and flash back.

SECTION 6: Accidental Release Measures

Damaged batteries that are not hot or burning should be placed in a sealed plastic bag or container.

Steps to be taken in case material is released or spilled, remove personnel from area until fumes dissipate.

Provide maximum ventilation to clear any hazardous gases.

Dispose of cell or battery in accordance with local environmental regulations.

SECTION 7: Handling and storage of batteries when outside of plastic housing

Do not store batteries in a manner that allows terminals to short circuit

Batteries should be separated from other materials and stored in a non-combustible, well ventilated, sprinkler-protected structure with sufficient clearance between walls and battery stacks.

Do not place batteries near heating equipment, nor expose to direct sunlight for long periods.

Batteries should be stored in a cool (below 70F), dry area. Air conditioning or cooling is not required unless excessively high temperatures will be encountered. Elevated storage temperatures can result in reduced battery shelf life and service life, and should be avoided. Batteries should be kept as cool as possible in order to maximize shelf life and service life.

Batteries are not designed to be recharged. Charging a battery may result in electrolyte leakage and/or cause the battery to flame.

Never disassemble a battery

Should a battery unintentionally be crushed, thus releasing its contents, rubber gloves must be used to handle all battery components. Avoid inhalation of any vapours that may be emitted.

In the event of skin or eye exposure to the electrolyte, refer to Section 4 First Aid Measures.

More than a momentary short circuit will generally reduce the battery service life.

Avoid reversing battery polarity within the battery assembly. To do so may cause cell to flame or to leak.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

No engineering controls are required for handling batteries that have not been damaged.

Personal protective equipment for damaged batteries should include chemical resistant gloves and safety glasses. In the event of a fire, SCBA should be worn along with thermally protective outer garments.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE	Device is housed in a sealed IP67-plastic housing
STABILITY in WATER	Product is waterproof - IP67
REACTION WITH WATER	Only if damaged
BOILING POINT	N/A
VAPOUR PRESSURE MM HG	N/A
VAPOUR DENSITY	Not soluble in water
SOLUBILITY IN WATER	N/A
APPEARANCE & ODOUR	N/A
SPECIFIC GRAVITY	N/A
MELTING POINT	N/A
EVAPORATION RATE	N/A

NOTE – The intrinsically safe models will not cause a spark in an explosive atmosphere.

SECTION 10: STABILITY and REACTIVITY

This product is stable under ordinary conditions of use and storage.

Damaged batteries will react with water. Non-discharged batteries contain elemental Lithium. This is water reactive. This reaction gives off heat and hydrogen gas. A thermal reaction may occur.

Hazardous decomposition products: Carbon Monoxide (CO), Hydrogen Fluoride (HF)

SECTION 11: TOXICOLOGICAL INFORMATION

Irritancy:	The electrolytes contained in this battery can irritate eyes with any contact. Prolonged contact with the skin or mucus membranes may cause irritation.
Sensitization:	No information is available at this time.
Carcinogenicity:	No information is available at this time.
Reproductive toxicity:	No information is available at this time
Teratogenicity:	This product contains a know teratogen as indicated in the chemical information in Section 2
Mutagenicity:	No information is available at this time

SECTION 12: ECOLOGICAL INFORMATION

Mammalian effects:	None known if used / disposed of correctly
Eco-toxicity:	None known if used / disposed of correctly
Bioaccumulation potential:	None known if used / disposed of correctly
Environmental fate:	None known if used / disposed of correctly

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL:	Only through a recognised disposer. DO NOT ATTEMPT TO DISMANTLE THIS PRODUCT. Batteries must be completely discharged prior to disposal And / or terminals must be taped or capped to prevent short circuit.
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SECTION 14: TRANSPORT INFORMATION

UN HAZARD CODE	Class 9
UN NUMBER	UN3090 - Battery Spares Kits (-20deg.c or -40deg.c) UN3091 –PLB8-LR SOS NON-DETACH PLB8-LR SOS DETACH PLB8-LD SOS NON-DETACH PLB8-MS SOS NON-DETACH ISPLB8X NON-DETACH – ATEX APPROVED ISPLB8X DETACH – ATEX APPROVED ISPLB8 NON-DETACH ISPLB8 DETACH ALL THE ABOVE COMPLETE WITH LITHIUM BATTERIERS
UN NAME	Lithium batteries Lithium batteries contained in equipment

SECTION 15: REGULATORY INFORMATION

CLASSIFICATION	Class 9
HAZARD SYMBOL	Miscellaneous
RISK PHRASES	R11, highly flammable R14/15, reacts violently with water liberating extremely flammable gases R21, harmful in contact with skin R22, harmful if swallowed R36/37, irritating to respiratory system R35, causes burns R41, risk of serious damage to the eyes R42/43, may cause sensitisation by inhalation and skin contact
SAFETY PHRASES	S2, keep out of the reach of children S8, keep away from moisture S22, do not breathe dust S24, avoid contact with skin S26, in case of contact with eye, rinse immediately with plenty of water S36, wear suitable protective clothing S37, wear suitable gloves S45, in case of incident, seek medical attention

SECTION 16: OTHER INFORMATION

The information contained herein is furnished without warranty of any kind. Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.