

STANDARD COMMUNICATIONS PTY. LTD.

MATERIAL SAFETY DATA SHEET

STANDCOMM MT410

STATEMENT OF HAZARDOUS NATURE

COMPANY DETAILS:

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Date Issued: 1st July 2008

Supersedes: N/A



(MT410G shown)

IDENTIFICATION

Shipping Name: Electronic radio equipment

Product Name/s: MT410, MT410G

Other Name/s: Personal Locator Beacon (PLB), ACCUSATTM

Dangerous Goods Class: Not applicable

Significant Ingredients of each Cell:

NAME	APPROXIMATE PERCENT OF TOTAL CELL WEIGHT (%)
Active Materials	
Manganese Dioxide (MnO ₂)	32.8
Organic Electrolyte	12.9
Lithium Metal (Li)	2.9
Passive Materials	
Base metal, stainless steel	48.8
Others, plastic	2.7

1. The unit is a Personal Locator Beacon (PLB) and is designed to provide a distress alerting and location function. When activated the PLB strobe flashes and radio signals are emitted on internationally recognised VHF and UHF distress channels.
2. The MT410G variant is equipped with an integral GPS receiver which can provide location co-ordinates for inclusion in the UHF distress transmission.
3. A PLB may find typical application in air, sea and land deployments which require a robust and portable emergency beacon which will be manually activated when required. The MT410 and MT410G will not sink when in water, but are not designed to operate without assistance when floating.
4. The integral power source, which cannot normally be accessed without opening the unit, is comprised of two (2) series wired batteries, which other than at times of operation, are electrically isolated from one another. Current limiting circuitry is provided in case of circuit fault. A battery consists of two (2) series connected LiMnO₂ Lithium (high energy density) long life cells.
5. The batteries are not to be removed or tampered with – to be used for purpose only.

PHYSICAL DESCRIPTION / PROPERTIES

- The enclosure is predominantly constructed of polycarbonate, with a small number of fittings evident on the exterior. The antenna, when released from the chassis, deploys in a vertical direction and simultaneously results in activation of the PLB.
- The PLB is designed to withstand moderately high levels of shock, impact and vibration consistent with the expected long-term conditions of installation and subsequent deployment.
- In an undamaged state the chassis forms an environmentally sealed enclosure which protects the printed circuit board, electronic components and integral battery.
- Should the chassis be penetrated then the LiMnO₂ cells may be exposed to damage:
 - Damaged cells may release highly corrosive and toxic contents; and
 - Disassembly, abuse or destruction of battery or cell may cause violent explosion with scattering of contents.
- Furthermore in respect to the LiMnO₂ cells:
 - Heating above 100°C (212°F) may cause bursting with release of contents; and
 - Heating above 170°C (338°F) will melt lithium resulting in a severe fire and explosion hazard.
- Cell Composition:
 - Nominally 0.49 grams (typ.) Lithium per cell.

HEALTH HAZARD INFORMATION

Acute and Chronic Health Effects:

- The cell chemicals are contained in a sealed unit within the PLB.
- **Risk of Exposure:** The risk of exposure occurs only if the cell is mechanically or electrically abused. Any contact of electrolyte and extruded lithium with the skin and eyes should be avoided. Inhalation to be avoided.
- **Signs and Symptoms of Exposure:** A shorted Lithium cell can cause thermal and chemical burns upon contact with the skin.
- **Medical Conditions Generally Aggravated by Exposure:** An acute exposure will not generally aggravate any medical condition.

Emergency First Aid:

- **Skin Contact:** In case of skin contact with the contents of a cell, flush immediately with water and contact the Poisons Information Centre.
- **Eye Contact:** For eye contact, flush with copious amounts of water for 15 minutes and contact the Poisons Information Centre.
- **Ingestion of Leaked Material:** For advice contact the Poisons Information Centre or a Doctor at once. Urgent hospital treatment is likely to be needed. If swallowed **DO NOT** induce vomiting.
- **Inhalation of Leaked Material:** Remove patient from contaminated area, lay patient down, keep warm and rested. CPR may be required. Transport to Hospital or Doctor without delay.

PRECAUTIONS FOR USE

- The batteries and cells are not for replacement by the user. Service of the beacon requires access to specialised equipment and replacement components, and is to be carried out by suitably qualified and authorised personnel only.
- Avoid Mechanical or Electrical Abuse.
- If the cell material is released, remove personnel from the area until the fumes dissipate.
- Provide maximum ventilation to clear out hazardous gases. Cells will not release hazardous gases under normal operation conditions.
- Batteries are capable of long-term storage at temperatures as high as 71°C (160°F). Storage at lower temperatures will not affect the product. Temperatures above 71°C (160°F) and storage at elevated temperatures should be avoided.
- **Ventilation:** In the case of cell venting, provide as much ventilation as possible. Avoid confined areas with venting cell.
- Never mix batteries with different chemistries or voltages in equipment as different batteries have different voltages or even polarities which cause short circuits or even venting.
- Do not mix new with old batteries as this can cause the used batteries to over discharge the new battery, resulting in violent venting.
- Respiratory protection is not necessary under conditions of normal use.
- **Personal Protection:** Is recommended for venting cell by wearing respiratory protection, protective gloves, protective clothing and safety glasses with side shields.
- Replace the full set of LiMnO₂ batteries when they no longer power the equipment, as it will prevent voltage reversal and possible venting
- Never attempt to charge LiMnO₂ batteries as they could violently vent or explode.
- Never use damaged LiMnO₂ batteries. Dispose of in accordance with local and State regulations.

SAFE HANDLING

Storage and Transport (Domestic and International): In compliance with prevailing IATA Dangerous Goods Regulations this product is categorised as exempt.

Waste Disposal Method: Follow applicable Federal, State and Local regulations for disposal/recycling of products with Lithium Batteries.

- Lithium batteries and cells are best disposed of as a non-hazardous waste when discharged.
- If waste lithium cells are still fully charged or only partially discharged, then can be considered a reactive hazardous waste because of significant amounts of un-reacted lithium in the battery. The cells must be neutralised through an approved secondary treatment facility prior to disposal as a hazardous waste.

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