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SDS – MT400, MT406G, MT600, MT600G, MT603G & MT603FG

SAFETY DATA SHEET

Issue 44897-8

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Section 1- Identification of the Material and Supplier

Product identifier:	MT400, MT406G, MT600, MT600G, MT603G, MT603FG
Other names:	Emergency Position Indicating Beacon (EPIRB), ACCU**SAT**™
Recommended use:	1. The unit is an Emergency Position Indicating Radio Beacon (EPIRB) and is designed to be provided on watercraft as a safety aid. When activated the EPIRB flashes and radio signals are emitted on internationally recognised VHF and UHF distress channels. 2. MT406G, MT600G, MT603G and MT603FG variants are equipped with an integral GPS receiver which can provide location co-ordinates for inclusion in the UHF distress transmission. 3. Typically, in use the EPIRB is deployed in water, where it is designed to float and self-right such that the antenna is in a substantially vertical orientation. 4. The integral power source (1 Battery), which cannot normally be accessed without opening the unit, is comprised of two (2), series connected, $LiSO_2$ cells. The battery is not to be removed or tampered with – to be used for purpose only.
Supplier Details **Name:** **Address:** **Telephone no.:** **Emergency phone number:**	 GME Pty Ltd 17 Gibbon Road, Winston Hills, NSW, 2153, Australia 61 2 8867 6000 61 2 8867 6000

Section 2- Hazard(s) Identification

- The EPIRB is designed to withstand moderately high levels of shock 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 $LiSO_2$ cells may be exposed to damage and could exhibit the following:
  - In contact with water releases flammable gases, which may ignite spontaneously – Category 1
  - Causes severe skin burns and eye damage – Category 1B
  - Harmful if swallowed – Category 4
  - Harmful if inhaled – Category 4
  - Total Lithium content is 4.8g(typ.) per unit. The unit have 1 Battery that consist of 2 cells (2.4g lithium per cell)

Section 3- Composition / Information on Ingredients

Components – Chemical name and common names (Hazardous components 1% or greater, Carcinogens 0.1% or greater)	**%** ***(typical)***	**CAS Number**	**EINECS/ELINCS**
Sulphur Dioxide (SO_2)	<30%	7446-09-5	231-195-2
Acetonitrile (C_2H_3N)	<9%	75-05-8	200-835-2
Carbon (C)	<6.5-7%	1333-86-4	215-609-9
Lithium Metal	<3%	7439-93-2	231-102-5
Lithium Bromide (LiBr)	<2.0-2.5%	7550-35-8	231-439-8
Non-Hazardous Ingredients	Remainder	-	-

Section 4 - First aid measures

Under normal conditions of use:

After inhalation:	Not a health hazard
After skin contact:	Not a health hazard
After eye contact:	Not a health hazard
After ingestion:	Drink plenty of water. Avoid vomiting. Seek medical assistance, contact a doctor or Poisons Information Centre immediately.

If exposed to internal materials within unit due to damaged outer casing, the following actions are recommended:

After inhalation:	Battery electrolyte: Move to fresh air. Get medical treatment immediately.
After skin contact:	Battery electrolyte: Remove contaminated clothing immediately. Flush affected area with plenty of water (at least 15 min). Seek medical assistance.
After eye contact:	Battery electrolyte: Flush eye gently with plenty of water (at least 15min). Seek medical assistance.
After ingestion:	Battery electrolyte: Wash mouth thoroughly with water. Drink plenty of water. Seek medical assistance, contact a doctor or Poisons Information Centre immediately.

Seek medical assistance for further treatment, observation and support if necessary.

Section 5 - Fire Fighting Measures

Extinguisher Media:	For lithium metal fires (marked by deep red flames) use metal fire extinction powder extinguisher - class D. If only water is available, it can be used in large amounts as a cooling agent. Carbon dioxide CO2 and Halon-type extinguishers is not suitable for lithium metal fires.
Special Fire-Fighting Procedures:	Full Protective clothing and including positive pressure self-contained breathing apparatus.
Special Hazard:	Battery cells may explode and release metal parts. At contact of anode material with water extremely flammable hydrogen gas and caustic liquid are released.

Section 6 - Accidental Release Measures

Steps to be taken if Material Is Spilled or Released

Personal Precautions & Emergency Procedures:	Evacuate area in the case of the battery cells venting/out-gassing provide as much ventilation as possible and avoid confined spaces. Wear personal protective equipment appropriate to the situation (protective gloves & clothing, eye & face protection and breathing protection).
Environmental Precautions:	Bind/contain released materials with powder (sand, lime, chalk, or vermiculite). Prevent released materials penetrating into the earth or ground water system.
Methods, Materials for Containment and Cleaning up:	Package the unit tightly including any released materials (contained in the binding medium: sand, lime, chalk, or vermiculite). Dispose of according to the local laws and regulations. Then clean the contaminated area with water.

Section 7 - Handling and Storage

Precautions to be Taken in Handing and Storage

Precautions for Safe Handling:	No special protective clothing is required for handling of an undamaged EPIRB. Do not puncture, incinerate or crush EPIRB and/or batteries. Do not short-circuit the batteries. Do not recharge the batteries. Improper handling of lithium ion batteries may result in injury or damage from electrolyte leakage, heating, ignition or explosion.
For Safe Storage:	Store in a cool, dry ventilated area (preferably below 30 °C). Temperatures above 85 °C may cause battery leakage and rupture

Section 8 -Exposure Controls and Personal Protection

When the EPIRB chassis or battery cells are not compromised and under normal operating conditions, the release of the hazardous material does not occur. Should the cells be compromised, any contact of electrolyte and extruded lithium with the skin and eyes should be avoided. Inhalation should also be avoided.

Section 9 - Physical and chemical Properties

When the EPIRB chassis or battery cells are not compromised and under normal operating conditions, the release of the hazardous material does not occur.

Section 10 - Stability and Reactivity

Dangerous Reactions:	Heating above 85°C may cause the batteries to burst, releasing the contents; and Heating above 170°C will melt lithium resulting in a severe fire and explosion hazard.

Section 11 - Toxicological Information

This product does not elicit toxicological properties during routine handling and use.

Sensitization	Teratogenicity	Reproductive Toxicity
NO	NO	NO

If the cells are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.

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

Section 13 - Disposal considerations

Waste Disposal Methods
Dispose in accordance with the appropriate Federal, State and Local Regulations.
Opened cells should be treated as hazardous waste.
Lithium batteries and cells are best disposed of as a non-hazardous waste when discharged, if they are partially or fully charged they considered a reactive hazardous waste because of significant amounts of un-reacted lithium in the battery.

Section 14 - Transport Information

U.N Number:	3091
Shipping Name:	Lithium Metal Batteries Contained in Equipment.
DG Class:	Class 9 – Miscellaneous- Lithium Batteries
Packaging Group:	IATA: NIL
Packaging Instruction:	IATA: PI 970 Section I
Hazchem Code:	4W
Emergency Guidelines:	ICAO: ERG Code: 9FZ
Battery Mass:	205g

Air Transport (Domestic and International):
Classified as Dangerous Goods by the criteria of International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

- UN No.: 3091
- Class: 9
- Shipping Name: LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
- Packing Group: None
- Packing Instruction: 970 Section I
- Special Provisions: A48, A88, A99, A154, A164, A181, A206

Road and Rail Transport (Domestic):
Classified as Dangerous Goods by the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail.

- UN No.: 3091
- Class: 9
- Shipping Name: LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
- Packing Group: None
- Packing Instruction: P903, P908, P909, A910, LP903, LP904
- Special Provisions: 230, 310, 376, 377, 384,

Marine Transport (Domestic and International):

- UN No.: 3091
- DG Class: 9
- Shipping Name: LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
- Packing Group: None
- Packing Instruction: P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906
- Special Provisions: 230, 376, 377, 384
- EmS: F-A, S-I

Section 15 - Regulatory Information

Battery chemistry not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals *(GHS)* including Work, Health and Safety regulations, Australia.
Battery chemistry not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons *(SUSMP)*.

Section 16 - Other information

Other Precautions and /or Special Hazards: N/A

------- END OF SDS -------