BATTERY MATERIAL SAFETY DATASHEET

Rev. 2.3

Product Data Sheet

Product And Company Identification:

Product:	CLB750G	**Date Prepared:**	Jan 2017
Manufacturer's Name:	Entel UK Limited,		
Address:	320 Centennial Avenue, Centennial Park, Elstree, Borehamwood, Herts ,WD6 3TJ		
Telephone Number:	+44 (0)20 8236 0032		
E-Mail:	technical@entel.co.uk		
Website:	www.entel.co.uk		

Product Composition:

Product Code	Material	Quantity (%)
CLB750G	Manganese Dioxide (MnO2) (1313-13-9)	65-75%
	Propylene Carbonate (PC) (108-32-7)	10-15%
	Lithium (7439-93-2)	<3.5%
	Graphite, synthetic (7440-44-0)	5-10%
	1,2-Dimethoxyethane (DME) (110-71-4)	1-10%
	Lithium Perchlorate (7791-03-9)	<1.5%

The Entel lithium metal batteries specified in this document have a lithium metal content of less than 2g

All Entel products should be recycled by the relevant local authorities (recycling information relating to the WEEE Directive may be found on the Entel web site www.entel.co.uk).

Hazards Identification

Do not short circuit, recharge, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the temperature range of the battery. Thermal degradation may produce hazardous fumes of manganese and lithium; oxides of carbon and other toxic by-products.

Most Important Hazards And Effects:

Human Health Effects:

- **Inhalation:** The steam of the electrolyte has an anaesthesia action and stimulates a respiratory tract.
- **Skin contact:** The steam of the electrolyte stimulates a skin. The electrolyte skin can cause a sore if in contact with your skin.
- **Eye contact:** The steam of the electrolyte can cause sore eyes.
- **Specific hazards:** If the electrolyte is in contact with water, it will generate hydrogen fluoride. This electrolyte is inflammable. Do not expose to fire.

First Aid Measures

Internal cell materials of an opened battery cell

- **Inhalation:** Make the victim blow his/her nose, gargle. Seek medical attention if necessary.
- **Skin contact:** Remove contaminated clothes and shoes immediately. Wash the adhere or contact region with soap and plenty of water immediately.
- **Eye contact:** Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.

A battery cell and internal cell materials of an opened battery cell

- **Ingestion:** Induce vomiting and seek medical attention immediately.

Fire Fighting Measures

- **Suitable extinguishing measures:** Water, carbon dioxide gas, nitrogen gas, chemical powder fire extinguishing, and fire foam.
- **Specific hazards:** Corrosive gas may be emitted during fire.
- **Specific methods of fire-fighting:** When the battery burns with other combustibles use the fire-extinguishing method which corresponds to the combustibles. Extinguish a fire from the windward direction as much as possible. Use self-contained breathing apparatus and full protective gear.

Accidental Release Measures

Internal cells materials, such as electrolyte leaked from battery cell, should be dealt with as follows:

- **Personal precautions:** Remove leaked materials with protective equipment. Do not inhale the gas.
- **Environmental precautions:** Battery should be disposed of according to the disposal section.

Handling and Storage

- **Handling:** The battery pack and enclosed cells should not be opened. Do not short circuit or expose to fire or high temperature. Do not soak cells in water. Do not expose to strong oxidisers. Do not crush. Do not carry batteries loose in pocket or bag.
- **Storage:** Avoid direct sunlight, high temperature, and high humidity. Store in a cool place

Exposure Controls / Personal Protection

No personal protection is necessary during normal use. In case of exposure to internal cell materials wash affected area for at least 15 minutes.

Physical and Chemical Properties

- Physical state: Solid. Insoluble in water.
- Odour, pH, vapour pressure etc are not applicable

Stability and Reactivity

- **Stability:** Stable under normal use.
- **Conditions to avoid:** Heat above 100^{o}C or incinerate. Deform. Mutilate, Crush, Pierce, Disassemble Recharge. Short circuit. Expose over a long period to humid conditions.
- **Materials to avoid:** Oxidising agents, alkalis, water. Avoid electrolyte contact with aluminium or zinc.
- **Hazardous reactions:** Lithium metal reacts with water to produce highly flammable gasses.
- **Hazardous decomposition products:** None during normal use
- **Hazardous decomposition products:** Thermal degradation may produce hazardous fumes of manganese & lithium; oxides of carbon & other toxic by-products.

Toxicological Information

No known toxicological properties of the batteries during normal handling and use.

Ecological Information

No known ecological risks of the batteries during normal use and handling.

Disposal Considerations

- Entel Lithium Metal batteries contain recyclable material. We recommended safe and environmentally responsible disposal where local recycling facilities exist. Do not dispose of in a fire.

Transport Information

Entel battery packs comply with all of the requirements set out in Section II and IB of Packing Instructions 968 and 969 for lithium metal batteries in the 58th Edition of the IATA DGR, and therefore are not classified as dangerous goods.

When shipping only 1-2 battery packs (without equipment) description is "UN3090 IATA DGR Section II, PI968"

When shipping more that 2 battery packs (without equipment) description is "UN3090 IATA DGR Section IB PI968"

When shipping batteries packed with equipment description is "UN3091 IATA DGR Section II, PI969"

NOTE: Battery packs identified as defective, or have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for air transport.

For different modes of transport please refer to the relevant requlations:
Air Freight – IATA
Road Freight - ADR
Sea Freight - IMDG

Other Information

- The information contained in this Safety data sheet is made in good faith and is based on the present state of knowledge and current legislation. Entel disclaims all liability in respect of the information implied or expressed. Equivalent information is available from the cell manufacturer.