

## Product And Company Identification:

|                             |  |                       |              |
|-----------------------------|--|-----------------------|--------------|
| <b>Product:</b>             | CNB450E and CNB750E  | <b>Date Prepared:</b> | 17 Jan, 2013 |
| <b>Manufacturer's Name:</b> | Entel UK Limited,  |                       |              |
| <b>Address:</b>             | 320 Centennial Avenue, Centennial Park, Elstree, Borehamwood, Herts ,WD6 3TJ |                       |              |
| <b>Telephone Number:</b>    | +44 (0)20 8236 0032  |                       |              |
| <b>E-Mail:</b>              | <a href="mailto:technical@entel.co.uk">technical@entel.co.uk</a>             |                       |              |
| <b>Website:</b>             | <a href="http://www.entel.co.uk">www.entel.co.uk</a>                         |                       |              |

## Product Composition:

| Product Code              | Material                    | Quantity (%) |
|---------------------------|-----------------------------|--------------|
| CNB450E<br>and<br>CNB750E | Manganese Dioxide           | 30-35%       |
|                           | Copper Foil                 | 7-8%         |
|                           | Aluminium Foil              | 3.5-4%       |
|                           | Diaphragm Paper             | 1.6-2%       |
|                           | Aluminium Shell             | 30-40%       |
|                           | Lithium Hexafluorophosphate | 5%           |
|                           | Ethylene Carbonate          | 7%           |
|                           | Methyl Ethyl Carbonate      | 7%           |
|                           | Dimethyl Carbonate          | 8%           |
|                           | Diethyl Carbonate           | 9%           |
| Methyl Acetata            | 8%                          |              |

As manufactured lithium ion cells do not contain lithium metal

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](http://www.entel.co.uk)).

## Hazards Identification

For the battery cell, chemical materials are stored in a hermetically sealed case designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there is no physical danger of ignition or explosion and chemical danger of hazardous materials' leakage. However, if exposed to fire, added mechanical shocks, decomposed, added electric stress by misuse, the gas released vent will be operated. The battery cell case will be breached at the extreme, hazardous materials may be released. Moreover, if heated strongly by a surrounding fire, acrid gas may be emitted.

### Most Important Hazards and Effects:

- **Inhalation:** The steam of the electrolyte has an anaesthesia action and stimulates respiratory tract.
- **Skin contact:** The steam of the electrolyte stimulates skin, and if brought in contact, can cause a sore.
- **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 adhered 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.

## **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 off according to the disposal section.

## **Handling and Storage**

- **Handling:** The battery pack and enclosed cells should not be opened. Do not expose to fire or high temperature. Do not soak cells in water. Do not expose to strong oxidisers. Do not crush.
- **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:** Exposure to high temperature or fire and crushing.
- **Hazardous decomposition products:** None during normal use

## **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 Li-Ion batteries contain recyclable material. We recommended safe and environmentally responsible disposal where local recycling facilities exist. Do not dispose off in a fire.

## **Transport Information**

The Watt-hour rating for the Entel lithium Ion products specified in this document is less than 20Wh for cells and 100Wh for batteries, they comply with all of the requirements set out in Section II and IB of packing Instructions 965 and 966 for lithium ion batteries in the 54<sup>th</sup> Edition of the IATA DGR.

When shipping only 1-2 battery packs (without equipment) description is "UN3480 IATA DGR Section II, PI965"

When shipping more than 2 battery packs (without equipment) description is "UN3480 IATA DGR Section IB PI965"

When shipping batteries packed with equipment description is "UN3481 IATA DGR Section II, PI966"

When packaged and shipped by Entel these batteries meet the requirements for transport by Air, Sea, Road and Rail, it is the shippers responsibility to determine and ensure that any subsequent shipments meet the requirements in place at the time

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.

## Regulatory Information

A completed "IATA Lithium-ion Battery Label" must be attached to the package for section II PI965 & 966. For section IB PI965 a DG label must be attached in addition to an IATA lithium-ion battery label.

Documentation requirements apply (refer to courier for specific requirements).

Packaging regulations apply (refer to courier for specific requirements).

In addition, IATA Regulations limit weight and quantities as follows:

- If shipping just Battery Packs: Maximum weight per package is 10Kg gross weight.
- If shipping Battery Packs packaged together with Radios: Battery limit per package is one Battery per Radio, plus 2 Spares per Radio: the maximum weight limit per package is 5kg net weight.

## 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.