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Material Safety Data Sheet

Product: **OM-EL-USB-PRO-BATT**

Date: 29-06-2010

IDENTIFICATION

Type: Lithium Thionyl Chloride(LiSOCl₂) non-rechargeable cell

Brand name : Tadiran Lithium Thionyl Chloride Cell

Part number:

Chemical reaction: $4\text{Li} + 2\text{SOCl}_2 \rightarrow 4\text{LiCl} + \text{S} + \text{SO}_2$

Hazardous ingredients:	
Name	Weight
Lithium (Li)	<= 0.5gm
Thionyl Chloride (SOCl ₂)	<47%
Carbon (C)	<6%
Aluminum Chloride (AlCl ₃)	<5%
Lithium Chloride (LiCl)	<2%

PHYSICAL DATA

Boiling point: N/A

Specific gravity: N/A

Vapour pressure: N/A

Melting point: N/A

Vapour density: N/A

Evaporation rate: N/A

Solubility in water: N/A

Appearance: Cylindrical Shape

Water reactive: If forced open, the ingredients hydrolyze to form SO₂, HCl, LiOH and H₂ upon contact with water.

Odour: If leaking, sharp, pungent odour

FIRE AND EXPLOSION HAZARD DATA

Flash point: N/A

Flammable limits: N/A

Extinguisher media: Lith-X or other metal(Class D) fire extinguisher powder.

Auto ignition: N/A

Special fire fighting procedures: Do not use water, sand, carbon dioxide or soda ash extinguisher. Water protective breathing apparatus and protective garments.

Unusual fire and explosion hazards : Do not short circuit, recharge, overdischarge, puncture, incinerate, crush or expose to temperature above the temperature rating of the battery.

REACTIVITY DATA

Stability: Stable

Conditions to avoid: Fire, heat over the temperature rating of the battery, electrical shorting, recharging, disassembly. Refer to vitrocell form(shipped with product) for safe handling information.

Incompatibility: Do not expose internal components to water.

Hazardous decomposition products: SO₂, HCl, LiOH and H₂

Hazardous polymerization: Will not occur

HEALTH HAZARD DATA

Routes of entry (Under normal conditions) :

Inhalation: NO

Ingestion: NO

Skin: NO

Health hazard: None

Carcinogen listed in: Not listed

Signs and symptoms of exposure: None, unless battery ruptures. In the event of exposure to internal contents, corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibrotic lung injury and membrane irritation.

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, eczema, skin allergies, lung injuries, asthma and other respiratory disorders may occur.

Emergency first aid procedures:

Eye Contact: Flush with running water for at least 15 minutes. Hold eyelids apart. Seek immediate medical treatment.

Skin Contact: Rinse with large amounts of running water. If burns develop seek medical treatment.

Inhalation: Remove to fresh air. If breathing is difficult, administer Oxygen and seek medical treatment.

Ingestion: Seek immediate medical treatment.

PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken if material is spilled or released: Do not breathe vapors or touch liquid with bare hands.

Waste disposal method: Neutralize spill with soda lime, seal leaking battery and soda lime in plastic bag and dispose of as hazardous waste.

Precautions to be taken in handling and storage: Do not short circuit or expose to temperatures above the temperature rating of the battery. Do not recharge, overdischarge, puncture or crush.

Other precautions and/or special hazards: Do not store batteries in high humidity environments for long periods. High temperature storage will degrade performance.

CONTROL MEASURES

Respiratory protection: As in any fire or chemical spill situation, use self contained breathing apparatus if a cell vent or fire occurs.

Eye protection: Safety glasses are recommended during handling of any lithium cell or battery.

Protective gloves: In the event of leakage, wear gloves.

Other protective clothing: In the event of leakage, wear chemical apron.

Ventilation:

Local exhaust: Recommended in a vent or leak situation.

Mechanical: N/A

Special: N/A

Other: N/A

TRANSPORTATION

Proper shipping name: Lithium Batteries

UN No: 3090: Lithium Batteries

UN 3091: Lithium metal batteries contained in equipment, or lithium metal batteries packed with equipment

Hazard classification: UN 3090 non-restricted

Packing group: II

Other: Cargo Aircraft Only

Special provisions and packing instructions:

ADR, RID: 188, 230, 310, 636, P903, P903a, P903b

IATA: A88, A99, A154, A164, P968, P969, P970

IMDG-Code: 188, 230, 310, P903

EmS: F-A, S-I

Storage and segregation: Category A

Non-hazardous batteries (per IATA and USDOT) The cells contain less than 1.0 grams of lithium and so they are not restricted for shipping purpose.

REGULATORY INFORMATION

OSHA Status: The internal component (thionyl chloride) is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1920.1200.

Shipping Requirements: The cell has a lithium content of less than 1.0 grams and is unrestricted. It can be shipped by any means [49 CFR 173.185 (a)(c)].

This statement is based on written information given by Lascar's suppliers, component manufacturers' own certification and random examination of complete products by independent test facilities and is accurate to the best of our knowledge.

For and on behalf of
Lascar Electronics Ltd.



Simon Wyre
RoHS Manager

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