

# Material Safety Data Sheet

## Lithium Ion Cells and Battery Packs

<b>Section 1. Chemical Product and Company Identification</b>	
PRODUCT IDENTIFICATION: Prismatic Lithium Ion Cells and Battery Packs	
MANUFACTURE'S NAME: EnerDel, Inc.	EMERGENCY TELEPHONE NUMBER: INFOTRAC 800-535-5053
ADDRESS: 8740 Hague Road Indianapolis, IN 46256	OTHER INFORMATION TELEPHONE NUMBER: 317-585-3400
RESPONSIBLE FOR PREPARATION: Environmental, Health and Safety Department	PREPARATION DATE: 29-Nov-2007

<b>Section 2. Composition/Information on Ingredients</b>
Batteries and cells covered by this sheet are articles pursuant to 29 CFR 1910.1200 and therefore are not subject to the OSHA Hazard Communication Standard. Exposure to hazardous chemicals is not expected with normal use; however, important information is contained in this MSDS for the proper and safe handling of these cells and batteries.

<b>Section 3. Hazard Identification</b>
<b>Emergency Overview:</b> Do not open or disassemble cells or batteries or expose them to fire or open flame. Do not puncture or deform. Cells and batteries present a hazard only if mishandled in a way that causes damage to the cell or battery or compromises their integrity.
<b>Primary Routes of Exposure:</b> Risk of exposure to hazardous materials will only occur if the cell or battery is physically, thermally or electrically abused to the extent that the integrity of the battery is compromised. In this case, exposure to the electrolyte can occur through ingestion, inhalation, eye contact and skin contact.
<b>Potential Health Effects:</b> If the battery or cell has been damaged or ruptured, the electrolyte solution, which is corrosive, could be released and cause burns to the eyes, skin or respiratory tract. Ingestion of the electrolyte can cause serious burns of the gastrointestinal tract.

<b>Section 4. First Aid Measure</b>
If exposure to internal materials occurs from a damaged cell or battery the following measures are recommended: <b>Eye Contact:</b> Flush eyes with water for 15 minutes and seek medical attention immediately. <b>Skin Contact:</b> Remove contaminated clothing and flush exposed area thoroughly with water; if irritation or pain persists, seek medical attention. <b>Inhalation:</b> Remove to fresh air; if not breathing administer artificial respiration and seek medical attention. <b>Ingestion:</b> If conscious, drink two large glasses of water; do not induce vomiting. Seek medical attention immediately.

### Section 5. Fire Fighting Measures

**Flammable Properties:** If the integrity of the cell or battery has been damaged, the electrolyte solution would be flammable. Batteries or cells may rupture or leak flammable material if exposed to excessive heat or fire.

**Extinguishing Media:** Dry chemical or CO2 extinguishers are most effective.

**Fire and Explosion Hazards:** Damaged cells and batteries have the potential to release flammable vapors that could flash near an ignition source. At extreme temperatures, cells and batteries may explode or vent.

### Section 6. Accidental Release Measures

**Containment Techniques:** Damaged cells or batteries that are not hot or venting should be placed in a sealed plastic bag or container. Absorb any spilled liquid with inert material.

**Personal Precautions:** Safety glasses and neoprene or natural rubber gloves should be worn when cleaning up damaged or leaking cells. Keep unnecessary personnel away from the immediate area.

### Section 7. Handling and Storage

**Handling:** Do not expose cell or battery to extreme heat or fire. Do not disassemble, crush or burn cell or battery. Avoid handling in a way that would cause a short circuit.

**Storage:** Store cells and batteries in a cool, dry area away from direct sunlight. Do not store in a manner that would cause the terminals to short circuit.

### Section 8. Exposure Controls/Personal Protection

**Exposure Controls:** Cells and batteries that have not been damaged do not require any special engineering controls.

**Personal Protective Equipment:** Under normal conditions, no special personal protective equipment is required. Damaged batteries and cells should be handled with neoprene or natural rubber gloves and safety glasses. SCBA should be used in the event of a fire.

**General Hygiene Practices:** Do not eat, drink or smoke in the general area of damaged or leaking cells or batteries.

### Section 9. Physical and Chemical Properties

This section is not applicable to cells and batteries.

### Section 10. Stability and Reactivity

**Stability:** Cells and batteries are stable under normal conditions of use and storage.

**Conditions to Avoid:** Do not expose batteries or cells to high temperatures or fire. Avoid mechanical or electrical abuse.

**Hazardous Decomposition Products:** If burned or exposed to fire, cells and batteries may release toxic fumes including VOC's.

**Section 11. Toxicological Information**

Irritation to the eyes, skin and respiratory tract may occur only if the integrity of the cell or battery is compromised. No other toxicological information is available at this time.

**Section 12. Ecological Information**

This section is not applicable to cells and batteries.

**Section 13. Disposal Considerations**

It is recommended that cells and batteries be completely discharged prior to disposal and/or the terminals taped to prevent short circuiting. In the United States, industrial users may dispose of waste batteries and cells under the Universal Waste Regulations. Always dispose of in accordance with local, state and federal regulations.

**Section 14. Transport Information**

Lithium ion cells and batteries are regulated as Class 9 hazardous materials except for certain types which are considered exempt. For shipping questions about a particular cell or battery, contact EnerDel for assistance.

**Section 15. Regulatory Information**

This section is not applicable to cells and batteries.

**Section 16. Other Information**

The information contained in this Material Safety Data Sheet represents the best and most current information available at the time of preparation. However, this information is provided without warranty of any kind. It is the responsibility of the user to decide what measures must be taken to provide for the safe and proper use and disposal of this product.