

## PRODUCT SAFETY DATA SHEET

### \*\*\* Section 1 - Product Identification \*\*\*

Product Name: Lithium-Ion Battery Pack  
Emergency Phone: 1-888-745-0333

Page 1 of 6 Issued 1/21/2015

### \*\*\* Section 2 - Hazards Identification \*\*\*

#### Emergency Overview

Not considered dangerous as manufactured. If battery is damaged, exposure to product components may cause eye, skin and respiratory tract irritation. Combustion products from a fire involving batteries may be harmful.

#### Potential Health Effects: Eyes

None anticipated under normal product use and handling conditions. If battery is damaged, exposure may cause severe irritation or burns.

#### Potential Health Effects: Skin

None anticipated under normal product use and handling conditions. If battery is damaged, exposure may cause severe irritation or burns.

#### Potential Health Effects: Ingestion

Not considered a likely route of exposure under normal product use and handling conditions. Ingestion of material from a damaged battery may cause serious burns to mouth, esophagus, and gastrointestinal tract.

#### Potential Health Effects: Inhalation

None anticipated under normal product use and handling conditions. If battery is damaged, exposure to vapors or mist may cause respiratory irritation.

#### HMIS Ratings: Health: 0 Fire: 0 HMIS Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

### \*\*\* Section 3 - Composition / Information on Ingredients \*\*\*

This battery is an article as defined by 29 CFR 1910.1200 and is not a controlled product under WHMIS. Exposure to hazardous ingredients is not anticipated under normal product use.

# PRODUCT SAFETY DATA SHEET

Product Name: Lithium-Ion Battery Packs

Page 2 of 6 Issued 1/21/2015

## \*\*\* Section 4 -First Aid Measures \*\*\*

### **First Aid: Eyes**

Flush eyes with lukewarm water for at least 30 minutes while holding the eyelids open. Seek immediate medical care.

### **First Aid: Skin**

Remove contaminated clothing, shoes and leather goods. Flush with water for at least 30 minutes. Seek medical attention if symptoms persist.

### **First Aid: Ingestion**

Never give anything by mouth if victim is unconscious. Rinse mouth thoroughly with water. Do not induce vomiting. Seek immediate medical attention.

### **First Aid: Inhalation**

Remove person to fresh air away from source of contamination.

## \*\*\* Section 5 - Fire Fighting Measures \*\*\*

### **General Fire Hazards**

See Section 9 for Flammability Properties.

Battery cells may rupture when exposed to excessive heat. Electrolyte solution is flammable.

### **Hazardous Combustion Products**

May release toxic fumes if burned or exposed to fire.

### **Extinguishing Media**

Use appropriate extinguishing agent for surrounding fire. For damaged or ruptured cells, use Class D extinguisher or other appropriate agent. Class C fire extinguishers should be used to extinguish electrical fires. Do not use water to extinguish electrical corrupted cell related fires.

### **Fire Fighting Equipment/Instructions**

Firefighters should wear full protective gear.

### **NFPA Ratings: Health: 0 Fire: 0 Reactivity: 0**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## \*\*\* Section 6 - Accidental Release Measures \*\*\*

### **Containment Procedures**

Stop the flow of material, if this is without risk.

### **Clean-Up Procedures**

Absorb spill with inert material. Shovel material into appropriate container for disposal. Clean spill area with detergent and water; collect wash water for proper disposal.

### **Evacuation Procedures**

Isolate area. Keep unnecessary personnel away.

### **Special Procedures**

Avoid skin contact with the spilled material.

# PRODUCT SAFETY DATA SHEET

Product Name: Lithium-Ion Battery Packs

Page 3 of 6 Issued 1/21/2015

## \*\*\* Section 7 - Handling and Storage \*\*\*

### Handling Procedures

Avoid damaging or rupturing battery.

### Storage Procedures

Store in a dry location at room temperature. Avoid extreme heat or fire. Keep out of reach of children.

## \*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\*

### A: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

### Engineering Controls

Not necessary under normal product use conditions.

### PERSONAL PROTECTIVE EQUIPMENT

#### Personal Protective Equipment: Eyes/Face

Not necessary under normal product use conditions.

Wear safety glasses if handling a damaged battery.

#### Personal Protective Equipment: Skin

Not necessary under normal product use conditions.

Wear neoprene or natural rubber gloves when handling a damaged battery.

#### Personal Protective Equipment: Respiratory

Not necessary under normal product use conditions.

#### Personal Protective Equipment: General

Eyewash fountains and emergency showers are required.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

Appearance: Various shaped battery

Physical State: Solid

Vapor Pressure: NA

Boiling Point: NA

Solubility (H<sub>2</sub>O): Insoluble

Evaporation Rate: NA

Octanol/H<sub>2</sub>O Coeff.: NA

Flash Point Method: NA

Lower Flammability Limit (LFL): NA

Auto Ignition: NA

Odor: None

pH: NA

Vapor Density: NA

Melting Point: NA

Specific Gravity: NA

VOC: NA

Flash Point: NA

Upper Flammability Limit (UFL): NA

Burning Rate: NA

# PRODUCT SAFETY DATA SHEET

Product Name: Lithium-Ion Battery Packs

Page 4 of 6 Issued 1/21/2015

## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

### **Chemical Stability**

This is a stable material.

### **Chemical Stability: Conditions to Avoid**

Avoid exposure to elevated temperatures and fire.

### **Incompatibility**

Not Available.

### **Hazardous Decomposition**

May release toxic fumes if burned or exposed to fire.

### **Possibility of Hazardous Reactions**

Not Available.

## \*\*\* Section 11 - Toxicological Information \*\*\*

### **Acute Dose Effects**

#### **A: General Product Information**

If product is ruptured, material may cause irritation to the skin, eyes and respiratory tract.

#### **B: Component Analysis - LD50/LC50**

No LD50/LC50's are available for this product's components.

### **Carcinogenicity**

#### **A: General Product Information**

No information available for the product.

#### **B: Component Carcinogenicity**

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

## \*\*\* Section 12 - Ecological Information \*\*\*

### **Ecotoxicity**

#### **A: General Product Information**

No information available for the product.

#### **B: Component Analysis - Ecotoxicity - Aquatic Toxicity**

No ecotoxicity data are available for this product's components.

## \*\*\* Section 13 - Disposal Considerations \*\*\*

### **US EPA Waste Number & Descriptions**

#### **Component Waste Numbers**

No EPA Waste Numbers are applicable for this product's components.

#### **Disposal Instructions**

Recycle battery. Do not dispose of in water bodies or sewer system. All wastes must be handled in accordance with local, state and federal regulations.

# PRODUCT SAFETY DATA SHEET

Product Name: Lithium-Ion Battery Packs

Page 5 of 6 Issued 1/21/2015

## **\*\*\* Section 13 - Disposal Considerations Continued\*\*\***

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

## **\*\*\* Section 14 - Transportation Information \*\*\***

**Lithium-ion batteries comply with all applicable shipping regulations as prescribed by industry and legal standards which include UN Recommendations on the Transport of Dangerous Goods; IATA Dangerous goods Regulations and US DOT requirements. Cells and Batteries have been tested to section 38.3 of the UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria. All of the batteries listed in this Safety Data Sheet are less than 100 Whrs; therefore, air shipment of up to 2 batteries without equipment in a package can be shipped as an “excepted” quantity and does not require being shipped as a fully regulated Class 9 Hazardous Material. If more than 2 batteries without equipment are being shipped in one package, using air transportation, then the package is considered a fully regulated shipment and must meet the more stringent documentation, marking, and labeling requirements.**

### **Batteries Alone**

UN3480, Lithium Ion Batteries

Air Shipments (IATA) – Packing Instruction 965 (Section IB for greater than 2 batteries per package, Section II for less than or equal to 2 batteries per package)

Sea Shipments (IMO-IMDG) – Special Provision 188

Europe Road Transportation (ADR) – Special Provision 188

US Road Transportation (DOT) – Special Provision 188

### **Batteries with or in Equipment**

UN3481, Lithium Ion Batteries packed with equipment OR Lithium Ion Batteries contained in equipment.

Air Shipments (IATA) – Packing Instruction 966 or 967, Section II

Sea Shipments (IMO-IMDG) – Special Provision 188

Europe Road Transportation (ADR) – Special Provision 188

US Road Transportation (DOT) – Special Provision 188

# PRODUCT SAFETY DATA SHEET

Product Name: Lithium-Ion Battery Packs

Page 6 of 6 Issued 1/21/2015

## \*\*\* Section 15 - Regulatory Information \*\*\*

### US Federal Regulations

#### A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

#### B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

### State Regulations

#### A: General Product Information

No additional information available.

#### B: Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

### Canadian WHMIS Information

#### A: General Product Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.

#### B: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

### Additional Regulatory Information

None