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**MATERIAL SAFETY DATA SHEET  
BATTERY PACK P/N 452-6504**

**SECTION 1 – MATERIAL IDENTIFICATION**

**Manufacturer's Name:** Artex Aircraft Supplies

**Address:** 14405 Keil Rd. NE  
Aurora, Or. 97002  
USA

**Product:** Emergency Locator Transmitter (ELT) battery pack containing lithium Sulfur Dioxide Cells. Each battery pack contains 4.8 grams of lithium sulfur dioxide. Each battery pack is diode protected and fused. Each battery pack has a net weight of 320 grams.

**EMERGENCY TELEPHONE NUMBER**

1-800-547-8901  
503-678-7929

**DATE ISSUED:** 27 MAY 2005

**REVISED:**

**SECTION 2 – HAZARDOUS INGREDIENTS / IDENTITY INFORMATION**

<b>Hazardous Components (Specific Chemical Identity) : Common Name(s)</b>					
	<b>OSHA PEL</b>	<b>ACGIH TLV 5TEL</b>	<b>Other Limits Recommended</b>	<b>% (Optional) (typically)</b>	<b>CAS Reg. Number</b>
<b>Lithium Metal</b>	N/A	N/A	N/A	<2.5%	7439-93-2
<b>Sulfur Dioxide</b>	5ppm	5ppm	N/A	<2.5%	7446-09-5
<b>Acetonitrile</b>	40ppm	40ppm	N/A	<6%	75-05-8
<b>Acetylene Black</b>	3.5ppm	3.5ppm	N/A	<5%	1333864

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E-mail: [info@artex.net](mailto:info@artex.net) web site: [www.artex.net](http://www.artex.net)

## SECTION 3 – PHYSICAL / CHEMICAL CHARACTERISTICS

<b>Boiling point</b>	N/A	<b>Specific gravity (H<sub>2</sub>O=1)</b>	>1
<b>Vapor pressure (mm Hg.)</b>	N/A	<b>Melting point</b>	190C
<b>Vapor Density</b>	N/A	<b>Evaporation rate (Butyl Acetate=1)</b>	N/A
<b>Solubility in water</b>	Not soluble in water		
<b>Appearance and Odor</b>	N/A		

## SECTION 4 – FIRE AND EXPLOSION DATA

<b>Flash point (Method used):</b>	Nonflammable (open flame)
<b>Extinguishing media:</b>	Use water or CO <sub>2</sub> on burning lithium sulfur dioxide cells or batteries. Use a class D fire extinguishing agent only on a raw lithium fire.
<b>Special fire fighting procedures:</b>	Use self-contained breathing apparatus.
<b>Unusual fire and explosion hazards:</b>	Battery may vent when subject to excessive heat – exposing contents.
<b>Flammable limits:</b>	N/A
<b>LEL:</b>	N/A
<b>UEL:</b>	N/A

## SECTION 5 – REACTIVITY DATA

<b>Stability:</b>	Stable
<b>Conditions to avoid:</b>	Battery contains hermetically sealed cells and is nonreactive provided the battery integrity is maintained and the cells seal remains intact.
<b>Incompatibility (Materials to avoid):</b>	N/A
<b>Hazardous decomposition or byproducts:</b>	N/A
<b>Hazardous polymerization:</b>	Will not occur
<b>Conditions to avoid:</b>	Heating, mechanical abuse and electrical abuse (such as recharging, voltage reversal)

## SECTION 6 – HEALTH HAZARD DATA

<b>Route(s) of entry:</b>	Sulfur Dioxide
<b>Inhalation?</b>	Yes
<b>Skin?</b>	Yes
<b>Ingestion?</b>	Yes
<b>Health hazards (Acute and chronic):</b>	Depending on the concentration of sulfur dioxide exposure, it acts as an asphyxiant and may possibly cause unconsciousness with no known chronic health effects.
<b>Carcinogenicity:</b>	None
<b>NTP listed:</b>	No
<b>IARC Monographs listed:</b>	No
<b>OSHA listed:</b>	No
<b>Signs and symptoms of exposure:</b>	Sulfur dioxide – Irritation of nose, throat, eyes, and/or skin: suffocating odor.
<b>Medical conditions:</b>	Generally aggravated by exposure – Sulfur dioxide – Asthma and other respiratory diseases.

## SECTION 7 – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps to be taken in case material is released or spilled:** Remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases.

**Waste disposal method:** Dispose of cell or battery in accordance with local, state and federal environmental regulations.

**Precautions to be taken in handling and storing:** See page 3.

**Other precautions:** Do not remove or bypass electrical or thermal fuses.  
Do not heat above 70C

## SECTION 8 – CONTROL MEASURES

**Respiratory protection (specify type):** N/A

**Ventilation:** Local exhaust N/A Special N/A  
Mechanical (General) N/A Other N/A

**Protective gloves:** N/A

**Eye protection:** Safety glasses with side shields

**Other protective clothing or equipment:** N/A

**Work/Hygienic practices:** N/A

## STORAGE

The LiSO<sub>2</sub> cell is capable of long term storage at temperatures as high as 160°F (71°C).

Storage for more than one year at 160°F (71°C) has been demonstrated. Storage at lower temperatures will not affect the product.

LiSO<sub>2</sub> cells and batteries should be stored in a well-ventilated, sprinkler protected, non-combustible structure with adequate clearance between walls and battery stacks. The batteries should be separated from other materials. Air conditioning or cooling is not required unless excessively high temperatures will be encountered, but the batteries should be kept as cool as possible in order to maximize shelf life. Temperatures above 160°F (71°C) should be avoided.

Hermetically sealed LISO<sub>2</sub> cells do not outgas. However, if exposed to extreme temperatures or rough handling, they may release sulfur dioxide gas if the vent is activated or the battery damaged. A well-ventilated storage area should be used to prevent inadvertent concentration of the gas if extremes are anticipated. If large quantities of batteries are stored, it may be advisable to install alarm devices in the storage area to detect smoke or accumulation of gases.

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## TRANSPORTATION DATA

<b>Label for Conveyance</b>	<b>Class 9 (miscellaneous)</b>
<b>UN Number</b>	<b>Lithium battery pack only #3090 / Emergency Locator Transmitter #3072</b>
<b>Shipping name</b>	<b>Lithium batteries / Life-Saving Appliances, Not Self-Inflating</b>
<b>Hazard Classification</b>	<b>Class 9 (Miscellaneous)</b>
<b>Packing Group</b>	<b>II</b>
<b>Marine Pollutant</b>	<b>No</b>

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