

# Material Safety Data Sheet

Emergency Phone:(248)-373-8100 24-Hour CHEMTREC (800)-424-9300 CHEMTREC, D.C. Area (800)-483-7616

## I. Chemical Product And Company Data

**PRODUCT:** ISO-FLEX Epoxy SF Primer Part A  
**CHEMICALFAMILY:** Epoxy resin  
**REVISION DATE:** MARCH 2007  
**MANUFACTURER:** LymTal International, Inc.  
4150 S. Lapeer Rd. Orion, MI 48359

Health	2
Flammability	1
Reactivity	0
Personal Protection	H

## II. Composition / Information On Ingredients

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). Where a proprietary ingredient is shown, the identity may be made available as provided in this standard. All components of this product are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

HAZARDOUS INGREDIENTS	CAS NO	EXPOSURE LIMITS			CONTENT
		TLV	STEL	PEL	
Epoxy Resin	25068-38-6	N/E	N/E	N/E	>55.0%
Epoxy Resin	26142-30-3	N/E	N/E	N/E	<30.0%
Furfuryl Alcohol (FA)	98-00-0	10 ppm	15 ppm	10 ppm	13.0%

### California Proposition 65 ingredients

Phenyl Glycidyl Ether	122-60-1	0.00039%
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### Section 313 Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 (40CFR372)

None

## III. Hazards Identification

HMIS Hazard Rating No. 2

PRIMARY ROUTE OF ENTRY: Eye and skin contact, breathing and ingestion.

Symptoms of Exposure

Skin Contact: Causes irritation or burns and can cause allergic skin reactions.

Eyes: Contact can cause severe irritation, redness, tearing, blurred vision. Contact with this product at elevated temperatures can result in thermal burns.

Inhalation: Vapors can be irritating to nose and mucous membranes. Low volatility of material makes inhalation unlikely

Ingestion: Not expected to be a relevant route of exposure although it may cause permanent damage to the mouth throat and stomach.

#### IV. First Aid Measures

<u>Inhalation</u>	Remove victim from exposure. If difficulty with breathing, administer oxygen and seek medical assistance
<u>Eyes</u>	Flush eyes with cold water for a minimum of 15 minutes, lifting lower and upper eye lids throughout. Seek immediate medical attention.
<u>Skin</u>	Immediately remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.
<u>Ingestion</u>	Do not induce vomiting, get immediate medical attention, if vomiting occurs spontaneously keep head below hips to prevent aspiration of liquids into lungs. Do not give anything by mouth to an unconscious person

#### V. Fire Fighting Methods

HMIS Hazard Rating No. 1

Flash Point: 65 °C (149 °F )

Method: Pensky Martin C.C.

General Hazard: Decomposition and combustion products may be toxic.

Auto-Ignition Temp.: Not Available

Limits of Flammability

LEL: Not Available

UEL: Not Available

Extinguishing Media

Carbon Dioxide, foam, dry chemical, and water fog.

Special Fire & Unusual Hazards

Move containers from area if it can be done without risk. Cool fire-exposed containers with water from the side. As in any fire, wear NIOSH/MSHA approved, pressure demand self contained breathing apparatus and full protective gear.

#### VI. Accidental Release Measures

Action To Take For Spills/ Leaks: Avoid contact with skin or eyes. Ventilate area, and eliminate all sources of ignition. Wear appropriate protective gear, contain leak or spill, salvage, clean up residue with absorbent material.

Waste Disposal Method: Handle disposal of waste material in manner that complies with local, state, province and federal regulation. Landfill if solidified, or incineration at agency approved waste-disposal facilities.

#### VII. Handling And Storage

Average Shelf Life:

Refer to Product Data Sheet

Special Instructions

Store away from open flames and high temperatures.

#### VIII. Exposure Controls / Personal Protection

Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build up of heavy vapors.

Personal Protection Equipment: Do NOT wear contact lenses when working with this material. Use chemical goggles/safety glasses with side shields and impervious gloves. Wear clothing with long sleeves and pants. In operations where mists can be generated or the exposure limits for crystalline silica exceeded, wear a NIOSH/MSHA approved dust/fume respirator selected by a technically qualified person for the specific work conditions. Wear respirator protection whenever airborne concentrations exceed TLV ceilings or TWA, use NIOSH approved respirators for listed hazard.

Confined spaces, room, or tanks are areas where concern for TLV's is especially important. Reference OSHA regulation CFR 29 1910.134 for recommended respiratory protection.

## IX. Physical And Chemical Properties

Boiling Point (°C):	170 (FA)	Water/Oil Distribution Coefficient:	N/A
Percent Volatile:	13% (149 g/l)	Solubility in Water:	Negligible
Freezing Point (°C):	N/A	Specific Gravity @20° C	1.14
Vapor Pressure @ 20° C	0.4mmHg	pH:	N/A
Vapor Density	3.4 at air =1	Evaporation Rate:	N/A
Odor Threshold:	N/A	Odor:	pungent
Appearance:	Amber liquid		
N/A = Not Available	N/D=NOT Determined	Ca. = Approximate	

## X. Stability And Reactivity

HMIS Hazard Rating No. 0

Stability

Stable

Incompatibility:

Strong acids, bases, amines and mercaptans.

Hazardous Decomposition Products

Oxides of Carbon; aldehydes; at elevated temperatures (>500 °F)  
Decomposition and Combustion products may be toxic.

Conditions To Avoid

Strong acids in bulk.

## XI. Toxicity Information

HMIS Hazard Rating No. 2

PRIMARY ROUTE OF ENTRY: Inhalation, dermal

Effects Of Overexposure

Inhalation:

Vapors may be irritating to the upper respiratory tract.

Eyes:

Contact can cause severe irritation redness and blurred vision.

Skin Contact:

In some individuals it may cause sensitization and thermal burns

Ingestion:

May cause permanent damage to the mouth throat and stomach.

Chronic:

This product does not contain chemicals considered to be carcinogenic by NTP, IRAC, ACGIH, OSHA.

## XII. Ecological Information

Marine Pollutant: NL

(NL = Not Listed; P = Moderate; PP = Severe; ND = Not Determined)

## XIII. Disposal Considerations

Handle disposal of waste material in a manner that complies with all applicable local, state, provincial and federal regulations.

## XIV. Transport Information

DOT SHIPPING INFORMATION

DOT Proper Shipping Name NOT REGULATED

DOT Hazard Class

DOT I.D Number

Label(s)

## XV. Regulatory Information

OSHA Hazard Communication Standard (29 CFR 1910.1200)	Hazardous
CERCLA/ Super fund (40 CFR 117,302)	N/A
SARA Extremely Hazardous Substances (40 CFR 355)	N/A
SARA Hazard Categories (40 CFR 370)	Health : Immediate Physical: None
SARA Toxic Chemicals (40 CFR 372) Inventory Status	None The chemicals in this product are listed on the US TSCA Chemical Substance Inventory and the Canadian Domestic Substances List.

## XVI. Other Information

THE INFORMATION HEREIN HAS BEEN COMPLIED FROM SOURCES BELIEVED TO BE RELIABLE AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, LymTal INTERNATIONAL INC. CANNOT GIVE ANY GUARANTEES REGARDING INFORMATION FROM OTHER SOURCES, AND EXPRESSLY DOES NOT MAKE ANY WARRANTIES, NOR ASSUMES ANY LIABILITY, FOR ITS USE.

# Material Safety Data Sheet

Emergency Phone:(248)-373-8100 24-Hour CHEMTREC (800)-424-9300 CHEMTREC, D.C. Area (800)-483-7616

## I. Chemical Product And Company Data

**PRODUCT:** ISO-FLEX Epoxy SF Primer Part B  
**CHEMICALFAMILY:** Cycloaliphatic Amine  
**REVISION DATE:** MARCH 2007  
**MANUFACTURER:** LymTal International, Inc.  
4150 S. Lapeer Rd. Orion, MI 48359

Health	3
Flammability	1
Reactivity	0
Personal Protection	D

## II. Composition / Information On Ingredients

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). Where a proprietary ingredient is shown, the identity may be made available as provided in this standard. All components of this product are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

HAZARDOUS INGREDIENTS	CAS NO	EXPOSURE LIMITS			CONTENT
		TLV	STEL	PEL	
1,2 CHAD AND 1,6 HAD reaction product derivative	68479-80-1	N/E	N/E	N/E	>40%
1,2 Cyclohexanediamine	694-83-7	N/E	N/E	N/E	<20%
Phenol	108-95-2	5 ppm	N/E	N/E	<20%
Hexanediamine (HAD) 1,6-	124-09-4	0.5 ppm	N/E	N/E	<20%

### California Proposition 65 ingredients

None

### Section 313 Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 (40CFR372)

Phenol 108-95-2

## III. Hazards Identification

HMIS Hazard Rating No. 3

PRIMARY ROUTE OF ENTRY: Eye and skin contact, breathing and ingestion.

Symptoms of Exposure

**Skin Contact:** Prolonged or repeated exposure may cause skin irritation, redness, minor burning. This material like many polyamines may in some individuals result in allergic type response such as a skin rash. It is corrosive to the skin, and may cause skin sensitization as described.

**Eyes:** Product may cause irritation to the eyes. Corrosive to the eyes and may cause severe damage including blindness.

Inhalation Vapors / mist may be corrosive to the upper respiratory tract. Repeated or prolonged exposure can result in lung damage. Lung damage may be evidenced by shortness of breath and may be accompanied by a chronic cough.

Ingestion: Not expected to be a relevant route of exposure although it may cause permanent damage to the mouth throat and stomach.

Chronic: TARGET ORGANS: eyes, skin, liver or the hepatic system, kidney, spleen, pancreas, and the respiratory system.

ACUTE EFFECTS: Product vapor in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of blue haze or fog around lights. The effect is transient and has no residual effect. Burns of the eye may cause blindness, contact of product with the eyes or skin quickly causes severe irritation and pain, which may result in burns, necrosis and permanent injury. Inhalation of vapors may severely damage contacted tissue and produce scarring. Product is readily absorbed through the skin and may cause nausea, headache and general discomfort.

POSSIBLE LONG TERM EFFECTS: This material may cause respiratory sensitization and chronic lung toxicity to exposed workers. Repeated and / or prolonged exposures may result in liver disorders ( such as jaundice or liver enlargement ), kidney disorders ( edema), adverse respiratory effects ( cough, tightness of chest, shortness of breath ), adverse eye effects ( corneal damage ) adverse skin effects ( rash, irritation, or corrosion ) Effects from inhalation or vapors may be delayed, repeated or prolonged exposure to low concentrations of vapor may cause a sore throat which is transient.

#### IV. First Aid Measures

Inhalation Remove victim from exposure. If difficulty with breathing, administer oxygen and seek medical assistance

Eyes Flush eyes with cold water for a minimum of 15 minutes, lifting lower and upper eye lids throughout. Seek immediate medical attention.

Skin Immediately remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.

Ingestion Do not induce vomiting, get immediate medical attention, if vomiting occurs spontaneously keep head below hips to prevent aspiration of liquids into lungs. Do not give anything by mouth to an unconscious person

#### V. Fire Fighting Methods

HMIS Hazard Rating No. 1

Flash Point: > 93 °C (200 °F )

Method: Pinsky Martin C.C.

General Hazard: Decomposition and combustion products may be toxic.

Auto-Ignition Temp.: Not Available

Limits of Flammability

LEL: Not Available

UEL: Not Available

Extinguishing Media

Ignition will give rise to a class B fire. In case of a large fire use water spray, alcohol foam. In case of a small fire use carbon dioxide, foam, dry chemical, dry sand or limestone.

Special Fire & Unusual Hazards

Move containers from area if it can be done without risk. Cool fire-exposed containers with water from the side. As in any fire, wear NIOSH/MSHA approved, pressure demand self contained breathing apparatus and full protective gear.

## VI. Accidental Release Measures

Action To Take For Spills/ Leaks: DANGER CORROSIVE : Avoid contact with skin or eyes. ventilate area, eliminate all sources of ignition. Wear appropriate protective gear, contain leak or spill, salvage, clean up residue with absorbent material.

Waste Disposal Method: Handle disposal of waste material in a manner that complies with local, state, province and federal regulation. Landfill if solidified, or incineration at agency approved waste-disposal facilities.

## VII. Handling And Storage

Average Shelf Life:

Refer to Product Data Sheet

Special Instructions

Store in a cool dry place. Keep away from acids and oxidizers. Do not store in reactive metal containers. When handling do not eat drink or smoke. Use in a well ventilated area, and avoid skin contact with skin or eyes and avoid breathing vapors.

## VIII. Exposure Controls / Personal Protection

Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build up of heavy vapors.

Personal Protection Equipment: Do NOT wear contact lenses when working with this material. Use chemical goggles/safety glasses with side shields and impervious gloves. Wear clothing with long sleeves and pants. In operations where mists can be generated or the exposure limits for crystalline silica exceeded, wear a NIOSH/MSHA approved dust/fume respirator selected by a technically qualified person for the specific work conditions. Wear respirator protection whenever airborne concentrations exceed TLV ceilings or TWA, use NIOSH approved respirators for listed hazard.

Confined spaces, room, or tanks are areas where concern for TLV's is especially important. Reference OSHA regulation CFR 29 1910.134 for recommended respiratory protection.

## IX. Physical And Chemical Properties

Boiling Point (°C):	205.00	Water/Oil Distribution Coefficient:	N/A
Percent Volatile:	0 g/l	Solubility in Water:	<1.0%
Freezing Point (°C):	N/A	Specific Gravity @20° C	1.04
Vapor Pressure @ 20° C	10.34 mmHg	pH:	alkaline
Vapor Density	>air	Evaporation Rate:	N/A
Odor Threshold:	N/A	Odor:	Ammonical
Appearance:	red liquid		
N/A = Not Available	N/D=NOT Determined	Ca. = Approximate	

## X. Stability And Reactivity

HMIS Hazard Rating No. 0

Stability

Stable

Incompatibility:

Mineral acids ( sulfuric, phosphoric ) organic acids ( acetic acid, citric acid ) oxidizing agents ( perchlorates, nitrates ) reactive metals ( sodium, calcium ) sodium or calcium hypochlorite. Product slowly corrodes copper, aluminium, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials react with

Hazardous Decomposition Products hydroxyl compounds. A reaction accompanied by a large heat release occurs when the product is mixed with acids, which may cause vigorous boiling which can result in splashing.  
 Oxides of Carbon; aldehydes; Decomposition and Combustion products may be toxic.

Conditions To Avoid See incompatibility section

**XI. Toxicity Information**

HMIS Hazard Rating No. 3  
PRIMARY ROUTE OF ENTRY: Inhalation, dermal  
 Effects Of Overexposure

Inhalation: Vapors may be corrosive to the upper respiratory tract.  
Eyes: Contact can cause severe burns including blindness.  
Skin Contact: Corrosive to the skin. In some individuals it may cause sensitization.  
Ingestion: May cause permanent damage to the mouth throat and stomach.  
 Chronic: This product does not contain chemicals considered to be carcinogenic by NTP, IRAC, ACGIH, OSHA.

**XII. Ecological Information**

Marine Pollutant: NL  
 (NL = Not Listed; P = Moderate; PP = Severe; ND = Not Determined)

**XIII. Disposal Considerations**

Handle disposal of waste material in a manner that complies with all applicable local, state, provincial and federal regulations.

**XIV. Transport Information**

DOT SHIPPING INFORMATION

DOT Proper Shipping Name	Corrosive liquid N.O.S (Contains Hexamethylenediamine Phenol)		
DOT Hazard Class	8 (Corrosive material)	PG II	
DOT I.D Number	UN 1760	Label(s)	8 (corrosive)

**XV. Regulatory Information**

OSHA Hazard Communication Standard (29 CFR 1910.1200)	Hazardous
CERCLA/ Super fund (40 CFR 117,302)	N/A
SARA Extremely Hazardous Substances (40 CFR 355)	N/A
SARA Hazard Categories (40 CFR 370)	Health : Immediate Physical: Fire
SARA Toxic Chemicals (40 CFR 372) Inventory Status	See section 313 notification in section II The chemicals in this product are listed on the US TSCA Chemical Substance Inventory and the Canadian Domestic Substances List.

## **XVI. Other Information**

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