

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 100 Part A
CHEMICALFAMILY: Epoxy resin
REVISION DATE: JAN 2010
DOCUMENT ID : EPOXY100-PT.A , VERSION 1.0
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	
Bis A Epoxy Resin	25068-38-6	N/E	N/E	N/E	0 – 80%
Magnesium silicate	14807-96-6	N/E	N/E	N/E	0 – 20%
Glycidyl Diluent	2461-15-6	N/E	N/E	N/E	0 – 20%
Epichlorohydrin and Bis A reaction products	025085-99-8	N/E	N/E	N/E	0 – 5%
Cresyl glycidyl ether	002210-79-9	N/E	N/E	N/E	0 – 2%
Iron Oxide	1309-37-1	N/E	N/E	N/E	0 – 10%
Titanium Dioxide	013463-67-7	10 mg/m3	N/E	10 mg/m3	0 – 10%
Carbon Black	001333-86-4	3.5 mg/m3	N/E	3.5 mg/m3	0 – 10%

N/E = Not Established

California Proposition 65 ingredients

Phenyl glycidyl ether	122-60-1	
Cresyl glycidyl ether	002210-79-9	< 2.0%

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)

Cresyl glycidyl ether	002210-79-9	< 2.0%
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III. Hazards Identification

HMIS Hazard Rating No. 2

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

Symptoms of Exposure

Skin Contact: Product may cause irritation, redness and discomfort which is transient.

Eyes: Product may cause severe irritation to the eyes.
Inhalation Vapors from product may cause irritation to the nose, throat and respiratory tract. Coughing and chest pains may result. High vapor concentrations may produce CNS depression.
Ingestion: Not expected to be a relevant route of exposure. Product may be slightly toxic if ingested.

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: Pensky Martin C.C.
General Hazard: None
Auto-Ignition Temp.: Not Available
Limits of Flammability LEL: Not Available UEL: Not Available
Available
Extinguishing Media For small fires, use water spray, foam, CO2, or dry chemical. For large fires, use water spray, fog, or alcohol foam.
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, then 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 away from oxidizing agents 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):	N/D	Water/Oil Distribution Coefficient:	N/A
Volatile Organic Content US EPA method 24	113g/l Part A only (VOC) 139g/l Part A and Part B	Solubility in Water:	Negligible
Freezing Point (°C):	N/A	Specific Gravity @20° C	10.9 lbs/gal
Vapor Pressure @ 20° C	N/A	pH:	N/A
Vapor Density	>air	Evaporation Rate:	N/A
Odor Threshold:	N/A	Odor:	slight
Appearance:	Pigmented 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, oxidizing agents, bases, amines and mercaptans.

Hazardous Decomposition Products

Oxides of Carbon; aldehydes and acids. 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, and eyes.

Effects Of Overexposure

Inhalation:

May cause irritation to the respiratory tract.

Eyes:

May be severely irritating to the eyes.

Skin Contact:

Irritating 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. However this product does contain (<5ppm) of epichlorohydrin (ECH) (cas no 106-89-8). It is unlikely that normal work practices with this product could result in measurable concentrations in the workplace. Please be aware that ECH has been reported to produce cancer in lab animals and top cause of mutagenic changes in bacteria and cultured human cells. It has been classified as a suspected human carcinogen by the NTP.

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 manner that complies with all applicable local, state, provincial and federal regulations.

XIV. Transport Information

DOT SHIPPING INFORMATION

Not Regulated

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	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 COMPILED 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.

REVISION NOTES : _____.

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 100 Part B
CHEMICALFAMILY: Amine Mixture
REVISION DATE: JAN 2010
DOCUMENT ID : EPOXY-100 , VERSION 1.0
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	
Modified amine mixture	Trade secret	N/E	N/E	N/E	>50%
Alkyl Alcohol	100-51-6	N/E	N/E	N/E	<30%

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)

None

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: Repeated exposure may cause skin sensitization, or sensitization to the respiratory tract and development of an asthmatic reaction to future exposure.
Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure to this product.

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. Give one glass of water unless victim is drowsy, convulsing or unconscious.

V. Fire Fighting Methods

HMIS Hazard Rating No. 1
Flash Point: > 93 °C (200 °F) Method: 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 Use water fog, carbon dioxide, or dry chemical.
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 the area, and eliminate all sources of ignition. Wear appropriate protective gear, contain leak or spill, salvage, then 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 open flames and high temperatures. When handling, do not eat drink or smoke. Use in a ventilated area, and avoid 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 will be 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):	N/A	Water/Oil Distribution Coefficient:	N/A
VOC Content EPA method 24	512 g/l part B only (VOC) 139 g/l A and B mixed	Solubility in Water:	<1.0%
Freezing Point (°C):	N/A	Specific Gravity @20° C	8.59 lbs / gal
Vapor Pressure @ 20° C	N/A	pH:	N/A
Vapor Density	>air	Evaporation Rate:	N/A
Odor Threshold:	N/A	Odor:	Ammonia like
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:

Avoid heat, flame and contact with strong oxidizing agents

Hazardous Decomposition Products

Oxides of Carbon and nitrogen; Decomposition and Combustion products may be toxic. Unidentified compounds may be formed during combustion.

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 (alkaline amine)		
DOT Hazard Class	8 (Corrosive material)	PG III	
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)	No reportable materials
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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REVISION NOTES : _____.