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: PRECOM ADHESIVE 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.

		EXPOSURE LIMITS			
HAZARDOUS INGREDIENTS	CAS NO	TLV	STEL	PEL	CONTENT
Epoxy resin: resin compound: Non hazardous	25068-38-6	N/E	N/E	N/E	
C12-C14 Alkylglycidyl ether	68609-97-2	N/E	N/E	N/E	

N/E = Not Established

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. 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: (212 ^{o}F) Method: Pensky Martin C.C.
General Hazard: None
Auto-Ignition Temp.: Not Available
Limits of Flammability LEL: Not Available UEL: Not Available

Extinguishing Media	Water fog, carbon dioxide, or dry chemicals.
Special Fire & Unusual Hazards	Water or foam may cause violent frothing and possibly endanger the life of the firefighters, especially when sprayed into hot or burning containers. 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 oxidizing agents, mineral acids, strong alkaline materials, amines 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 (^{o}F):	425	Water/Oil Distribution Coefficient:	N/A
Percent Volatile:	0.0%	Solubility in Water:	Negligible
Freezing Point (^{o}C):	N/A	Specific Gravity @20° C	1.15
Vapor Pressure @ 25^{o} C	0.03 mmHg	pH:	N/A
Vapor Density	> 1.0	Evaporation Rate:	N/A
Odor Threshold:	N/A	Odor:	slight
Appearance:	Colorless 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. Hardeners for epoxy resins unless done by experienced individuals.

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 OSHA Hazardous Communications Act 1910.1200.

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 INFORMATON

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: None
SARA Toxic Chemicals (40 CFR 372)	None
Inventory Status	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:	PRECOM ADHESIVE PART B
CHEMICALFAMILY:	Amine Mixture
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.

		EXPOSURE LIMITS			
HAZARDOUS INGREDIENTS	CAS NO	TLV	STEL	PEL	CONTENT
Tetra Ethylene Pentamine	112-57-2	N/E	N/E	N/E	< 5 %
Tall Oil Fatty Acid	68953-36-6	N/E	N/E	N/E	
Nonyl Phenol	25154-52-3	N/E	N/E	N/E	
N-Aminoethylpiperazine	140-31-8	N/E	N/E	N/E	
Polyoxyalkyleneamine	9046-10-0	N/E	N/E	N/E	
Diethylene Tetramine	111-40-0	N/E	N/E	N/E	

N/E = Not Established

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. 2

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

Symptoms of Exposure

Skin Contact:	Corrosive to the skin. May cause skin sensitization.
Eyes:	Product may cause severe irritation to the eyes and may cause severe damage including blindness.
Inhalation	Vapors or mist may be corrosive to the upper respiratory tract. Long term exposure may result in lung damage which will be apparent by shortness of breath and a chronic cough.

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

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: (240 ^{o}F) Method: Pensky Martin C.C.
General Hazard: None
Auto-Ignition Temp.: Not Available

Limits of Flammability	LEL: 1.0%	UEL: Not available
Extinguishing Media	For small fires, use foam, CO2, or dry chemical. For large fires, use water spray, or 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 > 150 ^{o}F

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 (^{o}F):	259	Water/Oil Distribution Coefficient:	N/A
Percent Volatile:	0.1% (0.97g/l)	Solubility in Water:	slight
Freezing Point (^{o}C):	N/A	Specific Gravity @20° C	0.97
Vapor Pressure @ 25^{o} C	0.05 mmHg	pH:	N/A
Vapor Density	7.6	Evaporation Rate:	0.007
Odor Threshold:	N/A	Odor:	Ammonical
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, oxidizing agents, bases, amines and mercaptans.
Hazardous Decomposition Products	Carbon dioxide and oxides of nitrogen. Decomposition and combustion products may be toxic.
Conditions To Avoid	Avoid heat, flame and contact with strong oxidizing agents.

XI. Toxicity Information

HMIS Hazard Rating No. 2

PRIMARY ROUTE OF ENTRY: Inhalation, dermal, and eyes.

Effects Of Overexposure

Inhalation:	Vapors may be corrosive to the upper respiratory tract.
Eyes:	May cause severe damage including blindness.
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 OSHA Hazardous Communications Act 1910.1200.

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 INFORMATON

DOT Proper Shipping Name	Corrosive liquid, N.O.S (Nonyl Phenol)	
DOT Hazard Class	8, PGIII	
DOT I.D. Number	UN1760	DOT PLACARD

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 Delayed Physical: None
SARA Toxic Chemicals (40 CFR 372)	None
Inventory Status	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.