

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 HPS
CHEMICALFAMILY: Cured / Premolded Polyurethane Joint Filler
REVISION DATE: FEBRUARY 2011
DOCUMENT ID : CURED-JOINT-FILLER, VERSION 1.0
MANUFACTURER: LymTal International, Inc.
4150 S. Lapeer Rd. Orion, MI 48359

Health	0
Flammability	1
Reactivity	0
Personal Protection	A

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	
Mineral Spirits - -----	64475-85-0	N / A	N / A	N / A	< 1% by wt.
Other Ingredients Trade ----- secret					balance

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. 0
PRIMARY ROUTE OF ENTRY: Ingestion
Symptoms of Exposure

Skin Contact: No known effects.
Eyes: No known effects.
Inhalation: No known effects.
Ingestion: Not expected to be a relevant route of exposure effects unknown.
Chronic: No known effects

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: 735 °F

Method:

General Hazard: Decomposition and combustion products may produce acidic gases and be toxic.

When forced to burn, the combustion gases will liberate hydrogen chloride gas fumes.

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. As in any fire, wear NIOSH/MSHA approved, pressure demand self contained breathing apparatus and full protective gear.

Flammability ratings meet the following specs: UL94HBF

MIL-P-15280D

VI. Accidental Release Measures

Action To Take For Spills/ Leaks: This material is a cured urethane and as such is a solid. **NOT APPLICABLE**

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

VII. Handling And Storage

Handling: Safety glasses & Protective gloves.

Storage: Store at ambient temperatures

Average Shelf Life:

Refer to Product Data Sheet

VIII. Exposure Controls / Personal Protection

Ventilation: Standard industrial work procedures apply. Safety glasses & Protective gloves recommended.

Personal Protection Equipment: Use chemical goggles/safety glasses gloves when working on a job site.

NIOSH approved self-contained respirators recommended for Toxic Smoke in case of fire. Standard industrial practice should be observed at all times.

IX. Physical And Chemical Properties

Boiling Point (°C):	N/D	Water/Oil Distribution Coefficient:	N/A
Percent Volatile:	<1 % (< 5 g / L)	Solubility in Water:	0
Freezing Point (°C):	N/A	Specific Gravity @20° C	0.910
Vapor Pressure @ 20° C	N/A	pH:	N/A
Vapor Density	N/A	Evaporation Rate:	N/A
Odor Threshold:	N/A	Odor:	Not Objectionable
Appearance:	Black open cell foam	Melting Point: 300 *F	
N/A = Not Available	N/D=NOT Determined	Ca. = Approximate	

X. Stability And Reactivity

HMIS Hazard Rating No. 0

Stability

Stable.

Incompatibility:

Fire / Solvent.

Hazardous Decomposition Products

Oxides of Carbon. Combustion products may be toxic.

Conditions To Avoid

Excessive heat.

XI. Toxicity Information

HMIS Hazard Rating No. 0

PRIMARY ROUTE OF ENTRY: Ingestion or inhalation of burned

Effects Of Overexposure

Inhalation: None Known.

Eyes: None Known.

Skin Contact: None Known.

Ingestion: None Known.

Chronic: None Known.

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**

INTERNATIONAL

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)	NOT 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)	N/A
SARA Toxic Chemicals (40 CFR 372)	See section 313 advisory in section II
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 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: 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 °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 (°F):	425	Water/Oil Distribution Coefficient:	N/A
Percent Volatile:	0.0%	Solubility in Water:	Negligible
Freezing Point (°C):	N/A	Specific Gravity @20° C	1.15
Vapor Pressure @ 25° 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 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: 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: 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.

HAZARDOUS INGREDIENTS	CAS NO	EXPOSURE LIMITS			CONTENT
		TLV	STEL	PEL	
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 °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 °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 (°F):	259	Water/Oil Distribution Coefficient:	N/A
Percent Volatile:	0.1% (0.97g/l)	Solubility in Water:	slight
Freezing Point (°C):	N/A	Specific Gravity @20° C	0.97
Vapor Pressure @ 25° 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.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Iso-Flex 835 Polysulfide Sealant - Resin/Side A
Version #	1.0
Revision date	21-Feb-2011
Company information	LymTal International, Inc. 4150 S. Lapeer Road Lake Orion, MI 48359 US
Emergency	Chemtrec (800) 424-9300 International (703) 527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Calcium carbonate	1317-65-3	< 40
Titanium dioxide	13463-67-7	< 10
Non-hazardous and other components below reportable levels		> 60

3. HAZARDS IDENTIFICATION

Emergency overview	Harmful in contact with eyes. Danger of serious damage to health by prolonged exposure. May cause cancer. May cause breathing disorders and lung damage.
Potential short term health effects	
Eyes	Contact may irritate or burn eyes. Eye contact may result in corneal injury.
Skin	Components of the product may be absorbed into the body through the skin.
Inhalation	May cause breathing disorders and lung damage.
Ingestion	Do not ingest.
Target organs	Eyes. Lungs. Respiratory system. Skin.

4. FIRST AID MEASURES

First aid	
Eye contact	Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately. Get medical attention if irritation develops or persists.
Skin contact	Get medical attention immediately. Remove and isolate contaminated clothing and shoes. Immediately flush skin with running water for at least 20 minutes. For minor skin contact, avoid spreading material on unaffected skin. Wash off immediately with plenty of water. If skin irritation persists, call a physician.
Inhalation	Get medical attention immediately. Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, give oxygen. Get medical attention, if needed.
Ingestion	If material is ingested, immediately contact a physician or poison control center. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not use mouth-to-mouth method if victim ingested the substance.
Notes to physician	Symptoms may be delayed.
General advice	Keep victim warm. Keep victim under observation. In case of shortness of breath, give oxygen. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

General fire hazards	Not a fire hazard.
Suitable extinguishing media	Small Fires: Dry chemical, CO ₂ , water spray or regular foam. Large Fires: Water spray, fog or regular foam.

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures	Stay upwind. Keep out of low areas. Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained.
Containment procedures	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.
Personal precautions	Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for cleaning up	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dike far ahead of liquid spill for later disposal. Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling	Do not breathe gas/fumes/vapor/spray. Wear personal protective equipment. Handle and open container with care. Surfaces may become slippery after spillage.
Storage	Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage. Do not freeze.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Titanium dioxide	13463-67-7	10 Mg/m3 TWA
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ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

Titanium dioxide	13463-67-7	lung
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OSHA - Final PELs - Time Weighted Averages (TWAs)

Calcium carbonate	1317-65-3	15 Mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Titanium dioxide	13463-67-7	15 Mg/m3 TWA (total dust)

Personal protective equipment

Respiratory protection A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Hand protection Protective gloves.

Eye protection Wear chemical goggles.

General Avoid contact with the skin and the eyes. Wear suitable protective equipment.

Engineering measures to reduce exposure Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Hygiene measures Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice for diagnostics.

9. PHYSICAL & CHEMICAL PROPERTIES

Density	13.08 lb/gal
Form	Liquid.
Specific gravity	1.57

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable at normal conditions. No hazards to be especially mentioned.
Incompatibility	Fluorine.

11. TOXICOLOGICAL INFORMATION

Local effects Risk of serious damage to eyes. Components of the product may be absorbed into the body through the skin.

Carcinogenicity Cancer hazard.

ACGIH - Threshold Limits Values - Carcinogens

Titanium dioxide	13463-67-7	A4 - Not Classifiable as a Human Carcinogen
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Chronic toxicity Prolonged or repeated exposure may cause lung injury.

12. ECOLOGICAL INFORMATION

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

13. DISPOSAL CONSIDERATIONS

Disposal instructions Dispose in accordance with all applicable regulations. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

14. TRANSPORTATION INFORMATION

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

International Air Transport Association (IATA) Requirements

Not regulated as dangerous goods.

International Maritime Dangerous Goods (IMDG) Code Requirements

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US federal regulations

Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Calcium carbonate	1317-65-3	215-279-6
Titanium dioxide	13463-67-7	236-675-5

Inventory - United States - Section 8(b) Inventory (TSCA)

Calcium carbonate	1317-65-3	Present
Titanium dioxide	13463-67-7	Present

Occupational safety and health administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes
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CERCLA (superfund) reportable quantity

None

Superfund amendments and reauthorization act of 1986 (SARA)

Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes

Hazard categories	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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NFPA ratings

Health: 0
Flammability: 0
Instability: 0

State regulations

Massachusetts - Right To Know List

Calcium carbonate	1317-65-3	Present
Titanium dioxide	13463-67-7	Present

New Jersey - Right to Know Hazardous Substance List

Titanium dioxide	13463-67-7	sn 1861
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Pennsylvania - RTK (Right to Know) List

Calcium carbonate	1317-65-3	Present
Titanium dioxide	13463-67-7	Present

16. OTHER INFORMATION

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Iso-Flex 835 Polysulfide Sealant - Hardener/Side B
Version #	1.0
Revision date	21-Feb-2011
Company information	LymTal International, Inc. 4150 S. Lapeer Road Lake Orion, MI 48359 US
Emergency	Chemtrec (800) 424-9300 International (703) 527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Manganese Dioxide	1313-13-9	< 60
Tetramethylthiuram disulfide	137-26-8	< 2.5
Non-hazardous and other components below reportable levels		> 40
Composition comments	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	

3. HAZARDS IDENTIFICATION

Emergency overview	Irritating to skin. Irritating to respiratory system. Harmful in contact with eyes. Danger of serious damage to health by prolonged exposure. May cause breathing disorders and lung damage. May cause brain and central nervous system damage.
Potential short term health effects	
Eyes	Contact may irritate or burn eyes. Eye contact may result in corneal injury.
Skin	Components of the product may be absorbed into the body through the skin. Irritating to skin.
Inhalation	May cause breathing disorders and lung damage. Irritating to respiratory system.
Ingestion	Do not ingest.
Target organs	Central nervous system. Eyes. Respiratory system. Skin.
Main symptoms	Chronic exposure to neurotoxins damages the brain and the central nervous system.

4. FIRST AID MEASURES

First aid	
Eye contact	Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if irritation develops or persists.
Skin contact	Remove and isolate contaminated clothing and shoes. Wash off immediately with plenty of water. If skin irritation persists, call a physician.
Inhalation	If breathing is difficult, give oxygen. Move to fresh air. Get medical attention, if needed.
Ingestion	Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Drink plenty of water. Do not induce vomiting without medical advice.
Notes to physician	Symptoms may be delayed.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

General fire hazards	Not a fire hazard.
Suitable extinguishing media	Small Fires: Dry chemical, CO ₂ , water spray or regular foam. Large Fires: Water spray, fog or regular foam.

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures	Ventilate closed spaces before entering. Stay upwind. Keep out of low areas. Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained.
Containment procedures	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.
Personal precautions	Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for cleaning up	Avoid dust formation. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dike far ahead of liquid spill for later disposal. Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling	Do not breathe gas/fumes/vapor/spray. Avoid contact with eyes. Handle and open container with care. Surfaces may become slippery after spillage.
Storage	Use care in handling/storage. Do not freeze.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Manganese Dioxide	1313-13-9	0.2 Mg/m3 TWA (as Mn)
Tetramethylthiuram disulfide	137-26-8	1 Mg/m3 TWA

ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

Manganese Dioxide	1313-13-9	CNS (manganism); lung; reproductive (as Mn)
Tetramethylthiuram disulfide	137-26-8	irritation

OSHA - Final PELs - Time Weighted Averages (TWAs)

Tetramethylthiuram disulfide	137-26-8	5 Mg/m3 TWA
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Personal protective equipment

Respiratory protection

A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Hand protection

Protective gloves.

Eye protection

Wear chemical goggles.

Skin and body protection

Wear appropriate chemical resistant clothing.

General

Avoid contact with the skin and the eyes. Wear suitable protective equipment.

Engineering measures to reduce exposure

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin and the eyes.

9. PHYSICAL & CHEMICAL PROPERTIES

Density	14.63 lb/gal
Form	Liquid.
Specific gravity	1.76

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable at normal conditions. No hazards to be especially mentioned.
Incompatibility	Acids. Peroxides. Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Local effects	Risk of serious damage to eyes. Components of the product may be absorbed into the body through the skin. Irritating to respiratory system. Irritating to skin.
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Component analysis - LD50

NIOSH - Selected LD50s and LC50s

Manganese Dioxide	1313-13-9	Oral LD50 Rat: >3478 mg/kg
Tetramethylthiuram disulfide	137-26-8	Inhalation LC50 Rat: 500 mg/m ³ /4H; Oral LD50 Rat: 560 mg/kg; Oral LD50 Mouse: 1250 mg/kg

Carcinogenicity

ACGIH - Threshold Limits Values - Carcinogens

Tetramethylthiuram disulfide	137-26-8	A4 - Not Classifiable as a Human Carcinogen
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Chronic toxicity

Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged or repeated exposure may cause lung injury.

Further information

Symptoms may be delayed.

Routes of exposure

Inhalation. Skin contact.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components of this product have been identified as having potential environmental concerns.

13. DISPOSAL CONSIDERATIONS

Disposal instructions

Dispose in accordance with all applicable regulations. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

14. TRANSPORTATION INFORMATION

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

International Air Transport Association (IATA) Requirements

Not regulated as dangerous goods.

International Maritime Dangerous Goods (IMDG) Code Requirements

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US federal regulations

CERCLA/SARA - Section 313 - Emission Reporting

Tetramethylthiuram disulfide	137-26-8	1.0 % de minimis concentration
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Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Manganese Dioxide	1313-13-9	215-202-6
Tetramethylthiuram disulfide	137-26-8	205-286-2

Inventory - United States - Section 8(b) Inventory (TSCA)

Manganese Dioxide	1313-13-9	Present
Tetramethylthiuram disulfide	137-26-8	Present

Occupational safety and health administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes
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CERCLA (superfund) reportable quantity

Tetramethylthiuram disulfide (TUEX): 10.0000

Superfund amendments and reauthorization act of 1986 (SARA)

Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	Yes
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Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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NFPA ratings

Health: 2
Flammability: 0
Instability: 0

International regulations

Canada - WHMIS - Ingredient Disclosure List

Tetramethylthiuram disulfide	137-26-8	1 % (English Item 1566, French Item 1620)
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State regulations

Massachusetts - Right To Know List

Tetramethylthiuram disulfide	137-26-8	Present
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New Jersey - Right to Know Hazardous Substance List

Manganese Dioxide	1313-13-9	sn 1157
Tetramethylthiuram disulfide	137-26-8	sn 1854

Pennsylvania - RTK (Right to Know) List

Tetramethylthiuram disulfide	137-26-8	Environmental hazard
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16. OTHER INFORMATION

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Issue date

21-Feb-2011