

Material Safety Data Sheet

1. Product and Company Identification

Product name: Poly Wall –Epoxy Injection LV & HV Part A
Chemical family: Epoxide (thermosetting resin)
Product use: Refer to the product technical data sheets
Supplier/Manufacturer: Polyguard Products, Inc.
5385 Freitag Drive #1
Menomonie, WI
Tel: (715) 231-4255
In case of emergency: CHEMTREC, US 1-800-424-9300 International 1-703-527-3887

2. Hazards identification

Physical state: Liquid
Emergency Overview: Sensitizer
Decomposition and combustion products may be toxic. Overexposure may lead to irritation, sensitization, and dermatitis.

Potential acute health effects
Inhalation: No known significant effects or critical hazards
Ingestion: No known significant effects or critical hazards.

Skin: Moderate irritation of skin may occur with contact. Existing eczema, allergy and skin conditions may be aggravated by exposure.

Eyes: May cause mild irritation or inflammation. Symptoms include watering or discomfort of eyes.

Potential chronic health effects
Chronic effects: Irritation, sensitization and dermatitis may occur.

Carcinogenicity: None of the components are listed as carcinogens by NTP, IARC or OSHA.
Mutagenicity: No known significant effects or critical hazards
Teratogenicity: No known significant effects or critical hazards
Developmental effects: No known significant effects or critical hazards
Fertility effects: No known significant effects or critical hazards
Target organs: Skin
Over-exposure signs/symptoms:
Inhalation: No known significant effects or critical hazards
Ingestion: No known significant effects or critical hazards
Skin: Prolonged or repeated exposure can cause skin irritation, reddening, dermatitis, and in some individuals, sensitization.
Eyes: Mild irritation and redness.
Medical conditions aggravated by overexposure: Pre-existing allergies, eczema, or skin conditions.
See toxicological information (Section 11)

3. Composition/information on ingredients

United States			
Name		CAS number	%
Diglycidyl Ether resin mixture		25068-38-6	65-95%
Proprietary diluents		98-00-0	5-35 %
N-Butyl glycidylether		2426-08-6	0-10 %

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact:	Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Get medical attention if irritation persists.
Skin contact:	Wash off in flowing water or shower. Remove and wash contaminated clothing before reuse.
Inhalation:	Remove to fresh air. If not breathing give artificial respirations. If breathing is difficult, oxygen should be administered by qualified personal. Call a physician or transport to a medical facility immediately.
Ingestion:	If swallowed, give large quantities of water. Do not induce vomiting unless directed to do so by medical personal. If gastrointestinal symptoms develop, consult medical personnel. Never give anything by mouth to an unconscious person.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth to mouth resuscitation.

5. Fire-fighting measures

Flammability of the product:	No specific fire or explosion hazard.
Extinguishing media:	
Suitable	Dry chemical, carbon dioxide, or foam.
Not suitable	None known
Hazardous thermal decomposition products	Decomposition products may include the following materials: Acrid smoke & fumes
Special protective equipment:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in a positive pressure mode.

6. Accidental release measures

Personal precautions:	No actions shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Small Spills:	Wipe up with rag.
Large Spills:	Use absorbent materials.
Environmental precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

7. Handling and storage

Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in your eyes or on your skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product and can be hazardous. Do not reuse containers.

Storage

Store in original container protected from direct sunlight in a dry cool and well ventilated area away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready to use. Do not store in unlabeled containers.

8. Exposure controls/personal protection

	United States
Product name	Exposure limits
Proprietary diluent	ACGIH TLV TWA: 40 mg/m ³ 8 hour(s) STEL: 60 mg/m ³ 8 hour(s)- skin NIOSH REL TWA: 40 mg/m ³ 8 hour(s) STEL: 60 mg/m ³ 8 hour(s)- skin OSHA PEL TWA: 200 mg/m ³ 8 hour(s)
N- Butyl glycidylether	ACGIH TLV TWA: 16.2 mg/m ³ - skin OSHA PEL TWA: 270 mg/m ³ NIOSH REL CEIL: 30 mg/m ³ 15 minutes

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedure:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protection.

Engineering measures:

Use only with adequate ventilation. General /local ventilation typically controls exposure levels very adequately.

Hygiene measure:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the work station location.

Personal protection

Eyes:

Chemical splash goggles or safety glasses.

Skin:

Overall buttoned at the neck and wrist.

Respiratory:

Supplied air, full face positive respirator or continuous flow respirator, or a supplied air hood is required when airborne concentrations are unknown or exceed threshold values.

Hands:

Chemical resistant gloves- Rubber or polyethylene. Use of barrier cream is recommended.

9. Physical and chemical properties

Physical state:	Clear liquid
Flash point	490 F (254.4 C)
Boiling Point:	> 200 F (> 93.3 C)
Vapor Pressure:	Not determined
Vapor Density:	Not determined
Evaporation rate:	Not applicable
Specific gravity:	1.1-1.2 (water =1)
Density:	9.16- 10.0 lb/gal
Solubility:	Slightly soluble in water
% volatiles by volume:	< 3%

10. Stability and reactivity

Stability:	Stable
Hazardous polymerization:	Not likely to occur
Conditions to avoid:	Elevated temperatures
Materials to avoid:	Reactive or incompatible with the following materials: Strong oxidizers, strong acids or bases in bulk.
Hazardous decomposition:	Carbon dioxide, carbon monoxide, aldehydes and other organics.

11. Toxicological information

Acute Toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Proprietary Diluent	Rat	233 ppm	LC 50 inhalation	4 hrs
	Rat	177 mg/kg	LD50- Oral	-
	Rabbit	400 mg/kg	LD50- Skin	-
Bisphenol a/Diglycidyl Ether resin	Rat	1660 mg/kg	LD50 Oral	-
	Rat	1030 ppm	LC50 inhalation	8 hrs

Inhalation No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Skin Irritating to skin.

Eyes Irritating to eyes.

12. Ecological information

Environmental effects: No known significant or critical hazards.

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to SECTION 7; Handling and Storage and Section 8: Exposure Control / Personal Protection for additional handling information and protection of employees.

14. Transportation information

AERG: Not applicable
Regulatory Information:
DOT/TDG/IMDG/IATA Not regulated

15. Regulatory information

United States

U.S. Federal regulations:

United States inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substance: No products were found.
SARA 302/304/311/312 hazardous chemicals: Bisphenol a/Diglycidyl Ether resin- immediate (acute) health hazard
SARA 311/312 MSDS Distribution- Chemical inventory –hazard identification
SARA 313 Toxic Chemicals: No products were found

California Prop. 65

The product may contain trace amounts of some chemicals considered by the state of California to be carcinogens or reproductive toxins

16. Other information

Label Requirements

Hazardous Material

Information System (USA)

HAZARD RATING

Health -	2	4- Extreme
Fire hazard-	1	3- Serious
Physical hazard	0	2- Moderate
Personal Protection	B	1- Slight

0- Minimal
See section 8 for more detailed information of personal protection.

National Fire Protection

Association (USA)

Health -	2
Flammability-	1
Instability	0
Special	

Date of Issue

8/7/11

Version

2

Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Material Safety Data Sheet

1. Product and Company Identification

Product name: Poly Wall -Epoxy Injection LV & HV Part B
Chemical family: Modified Polyamine /Polyamide composition (Epoxy hardener)
Product use: Refer to the product technical data sheets
Supplier/Manufacturer: Polyguard Products, Inc.
5385 Freitag Drive #1
Menomonie, WI
Tel: (715) 231-4255
In case of emergency: CHEMTREC, US 1-800-424-9300 International 1-703-527-3887

2. Hazards identification

Physical state: Liquid
Emergency Overview: Sensitizer. Will cause burns to skin and eyes. Overexposure may lead to irritation, sensitization, and dermatitis.
Potential acute health effects
Inhalation: High concentrations of vapor can cause irritation of respiratory tract nausea and vomiting.
Ingestion: No known significant effects or critical hazards.
Skin: Will cause burns to skin. Existing eczema, allergy and skin conditions may be aggravated by exposure.
Eyes: Will cause burns to eyes.
Potential chronic health effects
Chronic effects: Prolonged exposure or repeated exposure may cause asthma and skin sensitization or other allergic response.
Carcinogenicity: None of the components are listed as carcinogens by NTP, IARC or OSHA.
Mutagenicity: No known significant effects or critical hazards
Teratogenicity: No known significant effects or critical hazards
Developmental effects: No known significant effects or critical hazards
Fertility effects: No known significant effects or critical hazards
Target organs: Skin
Over-exposure signs/symptoms:
Inhalation: May cause asthma
Ingestion: No known significant effects or critical hazards
Skin: Prolonged or repeated exposure can cause skin irritation, reddening, dermatitis, and in some individuals, sensitization.
Eyes: Will cause burns
Medical conditions aggravated by overexposure: Pre-existing allergies, eczema, or skin conditions.
See toxicological information (Section 11)

3. Composition/information on ingredients

United States			
Name		CAS number	%
Proprietary Polyamide/polyamine Blend		Proprietary	< 70 %
Proprietary diluents		98-00-0	10-15 %
Diethylene Triamine		111-40-0	< 5 %
Proprietary Polymercaptan		Proprietary	< 15 %

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact:	Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Get medical attention if irritation persists.
Skin contact:	Wash off in flowing water or shower. Remove and wash contaminated clothing before reuse.
Inhalation:	Remove to fresh air. If not breathing give artificial respirations. If breathing is difficult, oxygen should be administered by qualified personal. Call a physician or transport to a medical facility immediately.
Ingestion:	If swallowed, give large quantities of water. Do not induce vomiting unless directed to do so by medical personal. If gastrointestinal symptoms develop, consult medical personnel. Never give anything by mouth to an unconscious person.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth to mouth resuscitation.

5. Fire-fighting measures

Flammability of the product:	No specific fire or explosion hazard.
Extinguishing media:	
Suitable	Dry chemical, carbon dioxide, or foam.
Not suitable	None known
Hazardous thermal decomposition products	Decomposition products may include the following materials: Carbon monoxide, carbon dioxide, nitrogen oxides.
Special protective equipment:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in a positive pressure mode.

6. Accidental release measures

Personal precautions:	No actions shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Spills:	Soak up with inert material or scrap up. Collect in designated waste container and dispose of according to applicable regulations.
Environmental precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

7. Handling and storage

Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in your eyes or on your skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product and can be hazardous. Do not reuse containers.

Storage

Store in original container protected from direct sunlight in a dry cool and well ventilated area away from incompatible materials (see section 10), heat, open flames and food and drink. Keep container tightly closed and sealed until ready to use. Do not store in unlabeled containers.

8. Exposure controls/personal protection

	United States
Product name	Exposure limits
Proprietary Polyamine blend	Not established
Proprietary diluent	ACGIH TLV TWA: 40 mg/m ³ 8 hour(s) STEL: 60 mg/m ³ 8 hour(s)- skin NIOSH REL TWA: 40 mg/m ³ 8 hour(s) STEL: 60 mg/m ³ 8 hour(s)- skin OSHA PEL TWA: 200 mg/m ³ 8 hour(s)
Diethylene Triamine	ACGIH TLV TWA: 4 mg/m ³ - skin OSHA PEL TWA: None NIOSH REL TWA: 4 mg/m ³ - skin
Proprietary Polymercaptan	Not established

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedure:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protection.

Engineering measures:

Use only with adequate ventilation. General /local ventilation typically controls exposure levels very adequately.

Hygiene measure:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the work station location.

Personal protection

Eyes:

Chemical splash goggles or safety glasses.

Skin:

Overall buttoned at the neck and wrist.

Respiratory:

Supplied air, full face positive respirator or continuous flow respirator, or a supplied air hood is required when airborne concentrations are unknown or exceed threshold values.

9. Physical and chemical properties

Physical state:	Straw colored liquid
Flash point	185 F (85 C) method PMCC
Boiling Point:	> 200 F (> 93.3 C)
Vapor Pressure:	Not determined
Vapor Density:	Not determined
Evaporation rate:	Not applicable
Specific gravity:	0.98-0.99 (water =1)
Density:	8.16- 8.25 lb/gal
Solubility:	Slightly soluble in water
% volatiles by volume:	< 3%

10. Stability and reactivity

Stability:	Stable
Hazardous polymerization:	Not likely to occur
Conditions to avoid:	Elevated temperatures
Materials to avoid:	Reactive or incompatible with the following materials: Strong oxidizers, strong acids or bases in bulk.
Hazardous decomposition:	Carbon dioxide, carbon monoxide, aldehydes and other organics.

11. Toxicological information

Acute Toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Proprietary Diluent	Rat	233 ppm	LC 50 inhalation	4 hrs
	Rat	177 mg/kg	LD50- Oral	-
	Rabbit	400 mg/kg	LD50- Skin	-
Diethylene Triamine	Rat	70 mg/kg	LC50 inhalation	4 hrs
	Rat	1080 mg/kg	LD50 Oral	-

Inhalation High concentrations of vapor can cause irritation of respiratory tract nausea and vomiting

Ingestion No known significant effects or critical hazards.

Skin Will cause burns to skin.

Eyes Will cause burns to eyes.

12. Ecological information

Environmental effects: No known significant or critical hazards.

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to SECTION 7; Handling and Storage and Section 8: Exposure Control / Personal Protection for additional handling information and protection of employees.

14. Transportation information

AERG: Not applicable

Regulatory

Information:

DOT/TDG/IMDG/IATA Not regulated

15. Regulatory information

United States

U.S. Federal regulations:

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substance: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products found

SARA 311/312 MSDS Distribution- Chemical inventory –hazard identification

SARA 313 Toxic Chemicals: No products were found

California Prop. 65

The product may contain trace amounts of some chemicals considered by the state of California to be carcinogens or reproductive toxins

16. Other information

Label Requirements

Hazardous Material

Information System (USA)

HAZARD RATING

Health -	2	4- Extreme
Fire hazard-	2	3- Serious
Physical hazard	0	2- Moderate
Personal Protection	B	1- Slight

0- Minimal

See section 8 for more detailed information of personal protection.

National Fire Protection

Association (USA)

Health -	2
Flammability-	2
Instability	0
Special	

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