

ITW Permatex  
Versachem Brand  
10 Columbus Blvd.  
Hartford, CT 06106 USA  
Telephone: 1-87-Permatex  
(877) 376-2839  
Emergency: 800-255-3924 (ChemTel)  
International Emergency: +01-813-248-0585

## Material Safety Data Sheet

### 1. PRODUCT IDENTIFICATION

**Product Name:** VERSACHEM STEEL WELD EPOXY (HARDENER)  
**Product Type:** Epoxy hardener

This product appears in the following stock number(s):  
47709

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
DIMER/TOFA, REACTION PRODUCTS WITH TETA 68082-29-1	40-70	Not listed	Not listed
LIMESTONE 1317-65-3	20-40	Not listed	15 mg/m <sup>3</sup>
2,4,6- TRIS(DIMETHYLAMINOMETHYL)PH ENOL 90-72-2	<10	Not listed	Not listed
POLYAMIDE OF TALL-OIL FATTY ACID DIMERS AND TETRAETHYLENEPENTAMINE 68953-36-6	5-15	Not listed	Not listed
TRIETHYLENETETRAMINE 112-24-3	<5	Not listed	Not listed
TETRAETHYLENEPENTAMINE 112-57-2	<5	Not listed	Not listed

### 3. HAZARDS IDENTIFICATION

**Toxicity:** The aminophenol can cause severe irritation and may be corrosive on prolonged contact. It may be a sensitizer. It can also be corrosive to eye tissue, leading to permanent injury including blindness. It may irritate the respiratory tract and may cause delayed lung damage upon overexposure to fumes or vapors. It can cause fatigue, muscular weakness, labored breathing or gastrointestinal irritation if swallowed .  
**Primary Routes of Entry:** Eye and skin contact, ingestion, inhalation

**Signs and Symptoms of Exposure:** Can cause severe and painful burns on contact to eyes, skin and if taken internally. Repeated skin contact may cause allergic skin reactions. Ingesting may cause abdominal pain and vomiting. Excessive exposure may cause abdominal discomfort, lumbar pain, CNS depression and kidney or liver damage.

**Aggravated Medical Condition:** Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

### 4. FIRST AID MEASURES

**Ingestion:** Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.  
**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. Seek immediate medical attention.  
**Skin Contact:** Immediately remove contaminated clothing and excess contaminant. Flush with water for at least 15 minutes. Wash thoroughly with soap and water. Consult a physician if irritation develops.  
**Eye Contact:** Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

### 5. FIRE FIGHTING MEASURES

**Flash Point °F(C°):** >200°F (.93°C)  
**Recommended Extinguishing Media:** Carbon dioxide, Dry chemical, Foam  
**Special Fire-Fighting Procedures:** Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact  
**Hazardous Products of Combustion:** Oxides of carbon, Oxides of nitrogen, Amines, Ammonia  
**Unusual Fire/Explosion Hazards:** Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion.

## 5. FIRE FIGHTING MEASURES

Lower Explosive Limit: n/d  
Upper Explosive Limit: n/d

## 6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Wear appropriate protective and respiratory equipment.

## 7. HANDLING AND STORAGE

Storage: Store in a cool, dry area.  
Handling: Avoid contact with skin and eyes. Do not inhale vapors. Wash hands before eating and smoking. Discard contaminated leather gloves and shoes.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses  
Skin: Neoprene or nitrile gloves recommended  
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.  
Respiratory Protection: An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White paste  
Odor: Ammonia  
Boiling Point: >390°F (199°C)  
pH: Alkaline  
Solubility in Water: Moderate  
Specific Gravity: 1.03  
VOC(Wt.%): 0  
Vapor Pressure: <1.0 mmHg  
Vapor Density (Air=1): >1  
Evaporation Rate: Not Determined

## 10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions  
Hazardous Polymerization: Will not occur  
Incompatibilities: Strong oxidizers, Acids, Reactive metals (e.g. Na, Ca, zinc), Materials reactive with hydroxyl compounds, Sodium/calcium hypochlorite, Peroxides  
Conditions to Avoid: Excessive heat.  
Hazardous Products of Combustion: Oxides of carbon, Oxides of nitrogen, Amines, Ammonia

## 11. TOXICOLOGICAL INFORMATION

See Section 3

## 12. ECOLOGICAL INFORMATION

No data available

## 13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations  
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

## 14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

U.S. Department of Transportation - DOT - 49 CFR (Ground)

DOT Shipping Name: Not regulated  
Hazard Class: None  
UN/ID Number: None

IATA (Air)

Proper Shipping Name: Not regulated  
Class or Division: None

## 14. TRANSPORTATION INFORMATION

UN/ID Number: None

### IMDG (Vessel)

Proper Shipping Name: Not regulated

Hazard Class: None

UN Number: None

## 15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

SARA 313 Information: None

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Inventory Status: All components of this product are listed (or exempt) on the EPA TSCA inventory.

## 16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 3, FLAMMABILITY 1, REACTIVITY 0

Estimated HMIS Classification: HEALTH 3, FLAMMABILITY 1, PHYSICAL HAZARD 0

(NFPA is a registered trademark of the National Fire Protection Association)

(HMIS is a registered trademark of the National Paint and Coatings Association)

Prepared By: Denise Boyd, Manager-Environmental, Health & Safety  
Company: ITW Permatex 10 Columbus Blvd. Hartford, CT USA 06106  
Telephone No.: 1-87-Permatex (877) 376-2839

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## Material Safety Data Sheet

### 1. PRODUCT IDENTIFICATION

Product Name: VERSACHEM STEEL WELD EPOXY (RESIN)  
Product Type: Epoxy resin

This product appears in the following stock number(s):  
47709

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	>60	Not listed	Not listed
LIMESTONE 1317-65-3	20-40	Not listed	15 mg/m <sup>3</sup>
PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER 28064-14-4	5-15	Not listed	Not listed
ALKYL GLYCIDYL ETHER 68609-97-2	<5	Not listed	Not listed
C.I.PIGMENT BLACK 11 12227-89-3	<5	Not listed	Not listed
EPICHLOROHYDRIN 106-89-8	0.1-1.0	0.5 ppm	5 ppm; 19 mg/m <sup>3</sup>

### 3. HAZARDS IDENTIFICATION

**Toxicity:** This material is irritating to skin, eyes and respiratory tract. May cause skin sensitization. May irritate gastrointestinal tract. High concentrations may cause central nervous system (CNS) depression.  
**Primary Routes of Entry:** Eye and skin contact, ingestion, inhalation  
**Signs and Symptoms of Exposure:** Eyes: Exposure to liquid or vapor causes mild eye irritation. Symptoms may include burning, tearing, redness, stinging, blurred vision and corneal injury. Skin redness. Repeated skin contact may cause allergic skin reactions. Ingesting may cause abdominal pain and vomiting. Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
EPICHLOROHYDRIN 106-89-8	0.1-1.0	Reasonably Anticipated to be a Carcinogen	A3 Confirmed animal carcinogen with unknown relevance to humans	Group 2A Monograph 71, 1999; Supplement 7, 1987; Monograph 11, 1976

**Aggravated Medical Condition:** Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

### 4. FIRST AID MEASURES

**Ingestion:** Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person  
**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. Seek immediate medical attention.  
**Skin Contact:** Immediately remove contaminated clothing and excess contaminant. Flush with water for at least 15 minutes. Wash thoroughly with soap and water. Consult a physician if irritation develops.  
**Eye Contact:** Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

### 5. FIRE FIGHTING MEASURES

**Flash Point °F(C°):** >200°F (>93°C)  
**Recommended Extinguishing Media:** Carbon dioxide, Dry chemical, Foam

## 5. FIRE FIGHTING MEASURES

<b>Special Fire-Fighting Procedures:</b>	Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact
<b>Hazardous Products of Combustion:</b>	Oxides of carbon, Chlorine
<b>Unusual Fire/Explosion Hazards:</b>	Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion. Heating above 149°C (300°F) in the presence of air may cause slow oxidation decomposition and above 260°C (500°F) may cause polymerization.
<b>Lower Explosive Limit:</b>	n/d
<b>Upper Explosive Limit:</b>	n/d

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spill Procedures:</b>	Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal
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## 7. HANDLING AND STORAGE

<b>Storage:</b>	Store in a cool, dry area.
<b>Handling:</b>	Avoid contact with skin and eyes. Use only in a well ventilated area. Wash hands before eating and smoking. Discard contaminated leather gloves and shoes.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Eyes:</b>	Safety glasses
<b>Skin:</b>	Neoprene or nitrile gloves recommended
<b>Ventilation:</b>	General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.
<b>Respiratory Protection:</b>	An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Black viscous liquid
<b>Odor:</b>	Little odor
<b>Boiling Point:</b>	>390°F (199°C)
<b>pH:</b>	Neutral
<b>Solubility in Water:</b>	Negligible
<b>Specific Gravity:</b>	1.1-1.3
<b>VOC(Wt.%):</b>	0
<b>Vapor Pressure:</b>	Not Determined
<b>Vapor Density (Air=1):</b>	>1
<b>Evaporation Rate:</b>	Not Determined

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable at normal conditions
<b>Hazardous Polymerization:</b>	Will not occur
<b>Incompatibilities:</b>	Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines)
<b>Conditions to Avoid:</b>	Excessive heat.
<b>Hazardous Products of Combustion:</b>	Oxides of carbon, Chlorine

## 11. TOXICOLOGICAL INFORMATION

See Section 3

## 12. ECOLOGICAL INFORMATION

No data available

## 13. DISPOSAL CONSIDERATIONS

<b>Recommended Method of Disposal:</b>	Disposal should be made in accordance with federal, state and local regulations
<b>US EPA Waste Number:</b>	NH - Not a RCRA Hazardous Waste Material

## 14. TRANSPORTATION INFORMATION

<b>DOT (49CFR 172)</b>	
<b>U.S. Department of Transportation - DOT - 49 CFR (Ground)</b>	
<b>DOT Shipping Name:</b>	Not regulated
<b>Hazard Class:</b>	None

## 14. TRANSPORTATION INFORMATION

UN/ID Number: None

### IATA (Air)

Proper Shipping Name: Not regulated

Class or Division: None

UN/ID Number: None

### IMDG (Vessel)

Proper Shipping Name: Not regulated

Hazard Class: None

UN Number: None

## 15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

SARA 313 Information Epichlorohydrin

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Inventory Status: All components of this product are listed (or exempt) on the EPA TSCA inventory.

## 16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 0

Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0

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Prepared By: Denise Boyd, Manager-Environmental, Health & Safety  
Company: ITW Permatex 10 Columbus Blvd. Hartford, CT USA 06106  
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