

ITW Permatex
 Versachem Brand
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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):
45209

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
LIMESTONE 1317-65-3	50-70	Not listed	15 mg/m ³
POLYAMIDE OF TALL-OIL FATTY ACID DIMERS AND TETRAETHYLENEPENTAMINE 68953-36-6	10-30	Not listed	Not listed
PACM OLIGOMERS 135108-88-2	<10	Not listed	Not listed
BENZYL ALCOHOL 100-51-6	<5	Not listed	Not listed
TETRAETHYLENEPENTAMINE 112-57-2	<5	Not listed	Not listed
4-NONYL-PHENOL 84852-15-3	<5	Not listed	Not listed
2,4,6- TRIS(DIMETHYLAMINOMETHYL)PH ENOL 90-72-2	<5	Not listed	Not listed
NONYLPHENOL 25154-52-3	<5	Not listed	Not listed
CRYSTALLINE SILICA 14808-60-7	0.1-1.0	0.025 mg/m ³	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 .
 Eye and skin contact, ingestion, inhalation

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. Excessive exposure may cause abdominal discomfort, lumbar pain, CNS depression and kidney or liver damage.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
BENZYL ALCOHOL 100-51-6	<5	male rat-no evidence; female rat-no evidence; male mice- no evidence; female mice-no evidence		
CRYSTALLINE SILICA 14808-60-7	0.1-1.0		A2 - Suspected Human Carcinogen	Group 1 Monograph 68, 1997 (inhalation of quartz)

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

4. FIRST AID MEASURES

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°):	267°F (130°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, Hydrogen chloride, Ammonia, Nitric acid, nitriles, amides
Unusual Fire/Explosion Hazards:	Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion.
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.
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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:	Amber liquid
Odor:	Ammonia
Boiling Point:	Not determined
pH:	Alkaline
Solubility in Water:	Not Determined
Specific Gravity:	1.016
VOC(Wt.%):	0
Vapor Pressure:	Not Determined
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, Nitrates
Conditions to Avoid:	Excessive heat.
Hazardous Products of Combustion:	Oxides of carbon, Oxides of nitrogen, Hydrogen chloride, Ammonia, Nitric acid, nitriles, amides

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

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)

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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):
45209

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
LIMESTONE 1317-65-3	30-60	Not listed	15 mg/m ³
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	30-60	Not listed	Not listed
IRON 7439-89-6	<10	Not listed	Not listed
SILICON 7440-21-3	<10	Not listed	15 mg/m ³
BENZYL ALCOHOL 100-51-6	<10	Not listed	Not listed
SILICON DIOXIDE, AMORPHOUS 112945-52-5	<5	5 mg/m ³ , TWA	Not listed
SILICA, QUARTZ 14808-60-7	0.1-1.0	0.025 mg/m ³	Not listed

3. HAZARDS IDENTIFICATION

Toxicity: May cause moderate eye irritation. May cause moderate skin irritation. May cause skin sensitization. May cause gastrointestinal irritation.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.

Signs and Symptoms of Exposure: May cause pain, redness or swelling of the eyes and excessive blinking and tear production. Repeated skin contact may cause allergic skin reactions. Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
BENZYL ALCOHOL 100-51-6	<10	male rat-no evidence; female rat-no evidence; male mice- no evidence; female mice-no evidence		
SILICON DIOXIDE, AMORPHOUS 112945-52-5	<5			Amorphous Silica, Group 3: Vol. 68: 1997
SILICA, QUARTZ 14808-60-7	0.1-1.0		A2 - Suspected Human Carcinogen	Group 1; Monograph 68, 1997

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

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Give victim water, call a physician immediately. Never give anything by mouth to an unconscious person.

Inhalation: Move to fresh air in case of accidental inhalation of vapors. Oxygen or artificial respiration if needed. Obtain medical attention.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°):	>200°F (>93°C)
Recommended Extinguishing Media:	Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures:	Firefighters should wear self-contained breathing apparatus. Use water spray to cool exposed containers.
Hazardous Products of Combustion:	Oxides of carbon, Aldehydes, Acid vapors, Chlorine
Unusual Fire/Explosion Hazards:	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.
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. Prevent from entering waterways or sewers.
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7. HANDLING AND STORAGE

Storage:	Store in a cool, dry area.
Handling:	Avoid contact with vapors from heated material. Avoid contact with skin and eyes. 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:	Black liquid
Odor:	Little odor
Boiling Point:	>450°F (>232°C)
pH:	Neutral
Solubility in Water:	Negligible
Specific Gravity:	1.62
VOC(Wt.%):	0
Vapor Pressure:	Not Determined
Vapor Density (Air=1):	>1
Evaporation Rate:	<1 (butyl acetate = 1)

10. STABILITY AND REACTIVITY

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

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)

14. TRANSPORTATION INFORMATION

DOT Shipping Name: Not regulated
Hazard Class: None
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
Marine Pollutant: 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 2, FLAMMABILITY 1, REACTIVITY 0
Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0
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