

ITW Permatex
 Versachem Brand
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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: VERSACHEM 4-MINUTE STEEL EPOXY (HARDENER)
Item No: 44209V
Product Type: Epoxy hardener

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component:	Weight%	ACGIH; TLV-TWA	OSHA PEL
LIMESTONE 1317-65-3	30-60	Not listed	15 mg/m ³
MERCAPTAN AMINE BLEND TSRN 679485-6533P	30-60	Not listed	Not listed
BENZYL ALCOHOL 100-51-6	<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: Extremely irritating to eyes, mucous membrane or skin, may cause severe burns. If poorly ventilated or strongly heated, can cause severe irritation of the respiratory tract including damage and scarring of tissue. May cause skin sensitization.

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

Signs and Symptoms of Exposure: It is possible that irritation may be severe and lead to burns. Repeated skin contact may cause allergic skin reactions. Inhalation of vapours in high concentration may cause shortness of breath (lung oedema). Ingestion may cause nausea and vomiting.

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.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. If symptoms persist, call a physician.

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. Wash contaminated clothing before re-use.

Eye Contact: Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Obtain 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.

Product Name: VERSACHEM 4-MINUTE STEEL EPOXY
(HARDENER)

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5. FIRE FIGHTING MEASURES

Hazardous Products of Combustion: Oxides of carbon, Oxides of nitrogen, Oxides of sulfur
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.

7. HANDLING AND STORAGE

Storage: Store in a cool, dry area.
Handling: Use in a well ventilated area. Avoid contact with skin and eyes. Wash thoroughly after handling. Discard contaminated leather gloves and shoes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses
Skin: Neoprene or nitrile gloves recommended
Ventilation: Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
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: Mercaptan
Boiling Point: n/d
pH: Not applicable
Solubility in Water: Negligible
Specific Gravity: 1.13
VOC(Wt.%): 0
Vapor Pressure: <1 @ 70°F
Vapor Density (Air=1): n/d
Evaporation Rate: n/d

10. STABILITY AND REACTIVITY

Chemical Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibilities: Strong oxidizers, Acids, Reactive metals (e.g. Na, Ca, zinc), Sodium/calcium hypochlorite, Nitrates, Peroxides
Conditions to Avoid: Excessive heat
Hazardous Products of Combustion: Oxides of carbon, Oxides of nitrogen, Oxides of sulfur

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

Product Name: VERSACHEM 4-MINUTE STEEL EPOXY
(HARDENER)

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14. TRANSPORTATION INFORMATION

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

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

None

California Proposition 65: No California Prop 65 chemicals are known to be present.

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 4-MINUTE STEEL EPOXY (RESIN)
Item No: 44209
Product Type: Epoxy resin

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component:	Weight%	ACGIH; TLV-TWA	OSHA PEL
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	<5	Not listed	15 mg/m ³
BENZYL ALCOHOL 100-51-6	<5	Not listed	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	<5	male rat-no evidence; female rat-no evidence; male mice- no evidence; female mice-no evidence		
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.

WHMIS Hazard Class: D2B TOXIC MATERIALS

4. FIRST AID MEASURES

Ingestion: If swallowed, do not induce vomiting - seek medical advice. Never give anything by mouth to an unconscious person.
Inhalation: Move to fresh air in case of accidental inhalation of vapors. Obtain medical attention.
Skin Contact: Wash with soap and water. Remove contaminated clothing and launder before reuse. 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.

5. FIRE FIGHTING MEASURES

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, Phenolics
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:	Use in a well ventilated area. Avoid contact with skin and eyes. Wash thoroughly after handling. Discard contaminated leather gloves and shoes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes:	Safety glasses.
Skin:	Neoprene or nitrile gloves recommended.
Ventilation:	Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
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:	Mild
Boiling Point:	>450°F (232.2°C)
pH:	Neutral
Solubility in Water:	Negligible
Specific Gravity:	1.62
VOC(Wt.%):	0
Vapor Pressure:	Nil @ 171°F
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, Phenolics

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)

Product Name: VERSACHEM 4-MINUTE STEEL EPOXY
(RESIN)

Item No. 44209

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

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

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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