

ITW Permatex  
Versachem Brand  
10 Columbus Blvd.  
Hartford, CT 06106 USA  
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## Material Safety Data Sheet

### 1. PRODUCT IDENTIFICATION

Product Name: VERSACHEM H2 HOLD ALL PURPOSE FLEXIBLE EPOXY (HARDENER)  
Product Type: Epoxy hardener

This product appears in the following stock number(s):  
22429

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
AMINOETHYLPIPERAZINE 140-31-8	5-15	Not listed	Not listed
TETA, REACTION PRODUCTS WITH PROPYLENE OXIDE 26950-63-0	5-15	Not listed	Not listed
DIONYLPHENOL 84962-08-3	5-15	Not listed	Not listed
TRIETHANOLAMINE 102-71-6	<5	5 mg/m <sup>3</sup>	Not listed
PIPERAZINE 110-85-0	<5	Not listed	Not listed
TRIETHYLENETETRAMINE 112-24-3	<5	Not listed	Not listed

### 3. HAZARDS IDENTIFICATION

**Toxicity:** Corrosive. Product can be absorbed through the skin and may cause nausea, headache and general discomfort. May cause skin sensitization.

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

**Signs and Symptoms of Exposure:** Contact causes severe skin irritation and possible burns. Repeated skin contact may cause allergic skin reactions. Eye irritation may be severe and result in injury. Inhalation of mist or vapor can cause damage to the upper respiratory tract and to the tissue depending on severity of exposure. Effects can range from mild irritation of mucous membranes to severe pneumonitis and destruction of lung tissue. Ingestion can cause very serious damage to the mucous membranes or other tissues with which contact is made.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
TRIETHANOLAMINE 102-71-6	<5	male rat-equivocal evidence; female rat- no evidence; male mice-inadequate; female mice- inadequate		Group 3; Monograph 77, 2000

**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:** Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention.

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

### 5. FIRE FIGHTING MEASURES

**Flash Point °F(C°):** >190°F (>88°C)

## 5. FIRE FIGHTING MEASURES

**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.

**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. Keep away from acids and oxidizers.  
**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:** ~212°F/~100°C  
**pH:** Alkaline  
**Solubility in Water:** Slight  
**Specific Gravity:** n/d  
**VOC(Wt.%):** 0  
**Vapor Pressure:** ~18 mm Hg  
**Vapor Density (Air=1):** >1  
**Evaporation Rate:** <1 (butyl acetate = 1)

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable at normal conditions  
**Hazardous Polymerization:** Will not occur  
**Incompatibilities:** Strong oxidizers, Acids, Chlorinated organic compounds, 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

## 14. TRANSPORTATION INFORMATION

**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.

None

**California Proposition 65:** No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.

**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 2, REACTIVITY 1

**Estimated HMIS Classification:** HEALTH 2, FLAMMABILITY 2, 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

**Revision Date:** September 18, 2012

**Revision Number:** 1

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## Material Safety Data Sheet

### 1. PRODUCT IDENTIFICATION

Product Name: VERSACHEM H2 HOLD ALL PURPOSE FLEXIBLE EPOXY (RESIN)  
Product Type: Epoxy resin

This product appears in the following stock number(s):  
22429

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	40-70	Not listed	Not listed
DIONYLPHENOL 84962-08-3	10-20	Not listed	Not listed
BUTYLATED BISPHENOL A EPOXY RESIN 71033-08-4	5-15	Not listed	Not listed
CRYSTALLINE SILICA 14808-60-7	0.1-1.0	0.025 mg/m <sup>3</sup>	Not listed

### 3. HAZARDS IDENTIFICATION

**Toxicity:** May cause eye and skin irritation. May cause skin sensitization.  
**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. Skin redness. Repeated skin contact may cause allergic skin reactions. Ingestion may cause nausea and vomiting.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
CRYSTALLINE SILICA 14808-60-7	0.1-1.0		A2 - Suspected Human Carcinogen	Group 1 Monograph 68, 1997 (inhalation of quartz)

**Aggravated Medical Condition:** May aggravate preexisting dermatitis.

### 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. If symptoms persist, call a physician.  
**Skin Contact:** Remove contaminated clothing and launder before reuse. Wash with soap and water. 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°):** >300°F (>149°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, 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

## 7. HANDLING AND STORAGE

**Storage:** Store in a cool, dry area.

**Handling:** Avoid contact with skin and eyes. 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:** Gray Viscous liquid

**Odor:** Phenolic odor

**Boiling Point:** >500°F (>260°C)

**pH:** Neutral

**Solubility in Water:** Negligible

**Specific Gravity:** n/d

**VOC(Wt.%):** 0

**Vapor Pressure:** <1.0 mmHg

**Vapor Density (Air=1):** >1

**Evaporation Rate:** <1 (butyl acetate = 1)

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable at normal conditions

**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, 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)**

**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.

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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