

Material Safety Data Sheet

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Section 1: Product and Company Identification

Product Name: Terroxy® Resin Systems — Moisture Vapor Treatment, Part B

Product Use Description: Curing Agent, Epoxy

Company: Terrazzo & Marble Supply Companies
77 South Wheeling Road
Wheeling, Illinois 60090

Telephone: 847.353.8000

Emergency Telephone Number: 800.424.9300 USA
01.703.527.3887 International

Section 2: Composition / Information on Ingredients

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazard Materials Information System (WHMIS). Unlisted ingredients are not "hazardous" per the OSHA standard and/or are not found on the WHMIS ingredient disclosure list.

| Chemical Name | CAS # | OSHA PEL | ACGIH TLV | WT % |
|---------------|-----------|----------|-----------|-------|
| Water | 7732-18-5 | N/E | N/E | 20-40 |
| Adduct | Mixture | N/E | N/E | 60-80 |

- N/E — Not Established
- ALL ingredients are registered on TSCA

Substances listed are present in concentration of 1% or greater, or 0.1% if cited as a potential Carcinogen in the OSHA Hazards Communication Standard. Where proprietary ingredient is listed, the identity is available as provided in 29 CFR 1910.1200.

Remaining components are trade secret.

Section 3: Hazards Identification

Emergency Overview: Vapors can cause severe irritation of respiratory tract.
Vapors can cause irritation and burns to the eyes.
Can cause irritation to skin
Can cause severe damage to mouth and throat.

Potential Health Effects

Inhalation : Headache, nausea, respiratory tract irritant.

Eye contact : Can cause irritation, burning, tearing, redness, swelling and possible chemical burns to the eyes.

Skin contact : Severe irritation and possible skin sensitizer.

Ingestion : Abdominal pain, nausea, vomiting, diarrhea, throat and mouth burns.

Chronic Health Hazard : Skin contact may aggravate existing dermatitis (skin condition). Over exposure to vapor or mist may aggravate existing respiratory conditions such as asthma, bronchitis or fibrotic respiratory disease.

Section 3: Hazards Identification (continued)

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| Carcinogenicity: | NTP CARCINOGEN: No IARC MONOGRAPHS: No OSHA REGULATED: No |
| Exposure Guidelines: | Target Organs: Skin, Eyes |
| Aggravated Medical | Skin contact may aggravate existing dermatitis (skin condition). Over exposure to vapor or mist may aggravate existing respiratory conditions such as asthma, bronchitis or fibrotic respiratory disease. |

Section 4: First Aid Measures

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| General advice: | Swallowing this corrosive material may result in severe ulceration, inflammation and possible perforation of the upper alimentary tract, with hemorrhage and fluid loss. Aspiration of this product during induced emesis can result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Control Center for additional treatment information. |
| Eye contact : | Flush eyes with plenty of water for at least 15 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. |
| Skin contact : | Flush at once with potable water for at least 15 minutes. DO NOT attempt to neutralize with chemical agents. Get immediate medical attention. Remove contaminated clothes. Wash before reuse. Destroy contaminated shoes. Get medical attention if swelling and/or irritation occurs. |
| Ingestion : | Give water to dilute stomach contents. DO NOT induce vomiting. If vomiting occurs, give fluids again. Get immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person. |
| Inhalation : | Move to fresh air. Get medical attention if effects persist. |

Section 5: Fire Fighting Measures

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| Flash Point: | 104.0° C (219.2° F) |
| Method Used: | Closed Cup |
| Flammable Limits in Air | |
| By Volume-Lower: | Not Determined |
| By Volume-Upper: | Not Determined |
| Extinguishing Media: | Foam, Water Spray, Dry Chemical; CO ₂ |
| OSHA Flammability Class: | Class III B |
| Special Fire Fighting Procedures: | Wear positive pressure self contained breathing equipment. Use water to cool containers exposed to fire. |
| Unusual Fire and Explosion Hazards: | Toxic fumes present when this material involved in fire. Containers may rupture. Sudden reaction & fire may result if product is mixed with an oxidizing agent. May generate carbon monoxide gas. May generate toxic nitrogen oxide gases. May generate ammonia gas. Personnel in vicinity and down wind should be evacuated. |

Section 6: Accidental Release Measures

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| Personal precautions: | Use positive pressure self contained breathing equipment and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas. |
| Environmental precautions: | Construct a dike to prevent spreading. |
| Methods for cleaning up: | Approach suspected leak areas with caution. Contact Air Products' Emergency Response Center for advice. Place in appropriate chemical waste container. |
| Additional advice: | If possible, stop flow of product. Avoid contact. Allow only personnel wearing goggles, neoprene or rubber gloves and protective clothing to clean up spill. In confined areas a full face respirator is recommended. Absorb spill with clay, diatomaceous earth or other absorbent materials. Place in disposal containers. |

Section 7: Handling and Storage

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| Handling: | Avoid contact with eyes. Avoid contact with skin and eyes. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke. |
| Storage: | Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not remove labels from empty containers. If mixtures of Part B and Part A are allowed to remain in the mixing container past the pot life deadline, heat and a strong reaction will result. |
| Technical measures/Precautions: | Do not store in reactive metal containers. |

Section 8: Exposure Controls / Personal Protection

Personal Protective Equipment:

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| Respiratory Protection: | If vapor or mist is generated and the occupational exposure limit is exceeded, use appropriate NIOSH/MSHA approved self contained breathing equipment or a full face respirator. Respirators should be selected by and used following requirements found in OSHA's respirator standards (29 CFR 1910.134). Not required for properly ventilated areas. |
| Ventilation: | Mechanical ventilation required if TLV is expected to be exceeded in confined areas. |
| Hand Protection: | Recommend wearing disposable latex or nitrile gloves when mixing to protect against incidental contact. If continuous contact is expected, recommend butyl rubber gloves be worn. |
| Eye Protection: | Wear safety glasses with side shields or safety goggles when handling this product. Additionally, wear a face shield when the possibility of splashing liquid exists. Do not wear contact lens. Have an eye wash station available. |
| Skin and Body Protection: | Prevent contact with this product. Long sleeve shirts and trouser without cuffs and/or apron if splashing liquids exists. Other protective equipment may be needed depending on condition use. |

Section 9: Physical and Chemical Properties

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| Boiling Range: | >100° C (>212° F) |
| Vapor Density: | N/E |
| Vapor Pressure: | 17.70 mm Hg @ 21°C (70°F) |
| VOC: | 0.00 |
| Solubility in Water: | Slight (0.1 - 1%) |
| Appearance and Odor: | Low Viscosity Liquid with Ammonia Odor |
| Specific Gravity (H2O=1): | 1.08 |
| Evaporation Rate: | N/E |

Section 10: Reactivity Data

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| Stability : | Stable under normal conditions. |
| Conditions to Avoid: | Not Applicable |
| Materials to Avoid : | Sodium hypochlorite. Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Reactive metals (e.g. sodium, calcium, zinc etc.). Materials reactive with hydroxyl compounds. Oxidizing agents. Epoxy resins under uncontrolled conditions. |
| Hazardous Decomposition Products: | Nitric acid. Ammonia Nitrogen oxides (NO _x). Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide. Carbon dioxide (CO ₂). Aldehydes Flammable hydrocarbon fragments (e.g., acetylene). When exposed to fire, oxides of Carbon and Nitrogen will be generated. |
| Hazardous Polymerization: | Will not occur. |

Section 11: Toxicological Information

Acute Health Hazard

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| Ingestion: | LD50 : > 500 mg/kg Species: Rat Method: Estimated |
| Inhalation: | LC50 (1 h) : > 20 mg/l Species: Rat Method: Estimated |
| Skin. : | LD50 : > 2,000 mg/kg Species: Rabbit Method: Estimated |
| Eye irritation/corrosion: | Severe eye irritation |
| Acute dermal irritation/corrosion: | Severe skin irritation. |
| Sensitization: | May cause sensitization by skin contact. Sensitization has occurred in laboratory animals after repeated exposures. |

Chronic Health Hazard

The product or a component may be mutagenic, the data is inconclusive. Mixed Polycycloaliphatic amines was tested in rats for systemic effects in a subchronic (28 day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney, and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day. Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No-Observed-Adverse-Effect-Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice.

Section 12: Ecological Information

Ecotoxicity effects

Aquatic toxicity: *No data available on the product itself.*

Toxicity to fish - Components:

Nonylphenol LC50 (96 h) : 0.128 mg/l Species : Fathead Minnow (Pimephales Promelas).

Toxicity to daphnia - Components:

Nonylphenol EC50 (48 h) : 0.0848 mg/l Species : Daphnia

Nonylphenol EC50 (48 h) : 0.19 mg/l Species : Daphnia

Toxicity to other organisms: *No data available on the product itself.*

Persistence and degradability

Mobility: *No data available.*

Bioaccumulation: *No data available on the product itself.*

Bioaccumulation - Components:

Formaldehyde, polymer with benzeneamine, hydrogenated: Does not bioaccumulate.

Nonylphenol: Moderate bioaccumulation potential.

Section 13: Disposal Considerations

Waste from residues / unused products: Contact supplier if guidance is required.

Contaminated packaging: Dispose of container and unused contents in accordance with federal, state, and local requirements.

Section 14: Transport Information

Consult Bill of Lading for transportation information

DOT: Not Regulated

IATA: Not Regulated

Section 15: Regulatory Information

OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class(es) Corrosive. Sensitizer.

| Country | Regulatory List | Notification |
|-------------|-----------------|---|
| USA | TSCA | Included on Inventory |
| EU | EINECS | Included on EINECS inventory or polymer substance, monomers included on EINECS inventory are no longer polymer. |
| Canada | DSL | Included on Inventory |
| Australia | AICS | Included on Inventory |
| Japan | ENCS | Included on Inventory |
| South Korea | ECL | Included on Inventory |
| China | SEPA | Included on Inventory |
| Philippines | PICCS | Included on Inventory |

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:
Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:
None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65):
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

WHMIS Hazard Classification:
Toxic Material Causing Other Toxic Effects, Corrosive Material

Section 16: Other Information

HMIS Rating

Health: 3
Flammability: 1
Reactivity: 0
Physical hazard : C

Prepared by Terrazzo & Marble Supply Companies.

Data and recommendations presented herein are based upon ours and other researchers and are believed to be accurate. The products discussed are distributed without warranty (expressed or implied) and the customer shall make his own determination of suitability for his particular purpose.