

Section 1: Product and Company Identification

Product Name: Terroxy[®] Resin Systems — Iso-Crack Epoxy Membrane, 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: 800.424.9300 - USA
01.703.527.3887 - International

Section 2: Hazards Identification

Classification of the mixture: Skin corrosion – Category 1B
Skin sensitization – Category 1
Serious eye damage – Category 1
Reproductive toxicity – Category 2
Acute toxicity – Category 4

Classification according to Regulation (EC) No 1272/2008

GHS Label elements:

Hazard Pictogram:



Signal Word:

Hazard Statements:

Warning
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H332 Harmful if inhaled
H335 May cause respiratory irritation

Precautionary Statements:

P261 Avoid breathing mist/vapors/spray
P264 Wash hands and skin contact areas thoroughly after handling
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment
P280 Wear protective gloves/eye/face protection
P301, P330, P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P301, P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P303, P353, P361 IF ON SKIN: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower
P305, P351, P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing
P310: Immediately call a POISON CENTER or doctor/physician
P333, P313 If skin irritation or rash occurs: Get medical advice/attention
P362 Take off contaminated clothing and wash before reuse
P391 Collect spillage
P501 Dispose of content/container through a waste management company authorized by the local government

Other hazards not classified:

None Known

Section 3: Composition / Information on Ingredients

This product is a mixture.

| Component | CAS# | Amount |
|----------------------------------|--------------|--------------|
| Nonylphenol | 84852-15-3 | 5.0% - 45.0% |
| 4,4'-Methylenebiscyclohexanamine | 1761-71-3 | 5.0% - 15.0% |
| Aliphatic Amines | Trade Secret | 0.0% - 45.0% |

N/E - Not Established
 ALL ingredients are registered on TSCA
 The remaining components are trade secret.

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.

Section 4: First Aid Measures

- General advice:** Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
- 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:** Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Initiate and maintain gentle and continuous irrigation until the patient receives medical care. Cover wound with sterile dressing. Take off contaminated clothing and shoes immediately. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation:** Move to fresh air.

Section 5: Fire Fighting Measures

- Suitable extinguishing media:** Alcohol-resistant foam
 Carbon dioxide (CO2)
 Dry chemical
 Dry sand
 Limestone powder
- Specific hazards:** May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes.
- Special protective equipment for fire-fighters:** Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear for fire-fighters: self contained breathing apparatus for fire fighting if necessary.
- Further information :** Do not allow run-off from fire fighting to enter drains or water courses.
 OSHA Flammability Class: Combustible Class III B

Section 6: Accidental Release Measures

- Personal precautions:** Use self-contained breathing apparatus 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 Terrazzo and Marble 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.

Section 7: Handling and Storage

- 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:

- Respiratory Protection:** Not required for properly ventilated areas. 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).
- 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 is recommended if splashing liquids exists. Other protective equipment may be needed depending on condition use.
- Exposure Limit:**

| Chemical Name | OSHA PEL | ACGIH TLV |
|----------------------------------|-----------------|-----------------|
| Nonylphenol | Not Established | Not Established |
| 4,4'-Methylenebiscyclohexanamine | Not Established | Not Established |
| Aliphatic Amines | Not Established | Not Established |

Section 9: Physical and Chemical Properties

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|-----------------------------|--|
| Physical State: | Liquid. |
| Color: | Light Yellow. |
| Odor: | Amine-like. Sharp ammonia odor. |
| Relative density: | 0.98 (H ₂ O = 1) |
| Vapor pressure: | < 2.00 mmHg at 70°F (21°C) |
| Density: | 61.179 lb/ft ³ (0.98 g/cm ³) at 70°F (21°C) |
| V.O.C. | 0 g/L |
| pH: | 10.00 |
| Boiling point/Range: | > 430°F (221°C) |
| Flash point: | 303.0°F (150.56°C) |
| Water solubility: | Partially Soluble |

Section 10: Reactivity Data

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|--|---|
| Stability : | Stable under normal conditions. |
| Conditions to Avoid: | Contact with acids such as Hydrochloric or Sulfuric. |
| Materials to Avoid : | Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Sodium hypochlorite. Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. 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 : | > 1,620 mg/kg |
| Species: | Rat |
| Method: | Estimated |
| Inhalation: | LC50 (1 Hour): > 20 mg/L |
| Species: | Rat |
| Method: | Estimated |
| Skin. : | LD50 : > 1,000 mg/kg |
| Species: | Rabbit. |
| Method: | Estimated. |
| Eye irritation/corrosion: | Severe eye irritation. |
| Acute dermal irritation/corrosion: | Severe skin irritation. Corrosive to the skin of a rabbit. |
| Sensitization: | Sensation has occurred in laboratory animals after repeated exposure. |

Chronic Health Hazard

The product or a component may be mutagenic, the data is inconclusive.

Section 12: Ecological Information

Ecotoxicity effects

Aquatic toxicity: No data available.

Toxicity to fish - Components:

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

Methylenebiscyclohexanamine, 4,4'-

| | |
|-----------------------------|---|
| LC50 (96 h) : 46 - 100 mg/l | Species : Golden Orfe (Leuciscus idus). |
|-----------------------------|---|

Toxicity to daphnia - Components:

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

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

Methylenebiscyclohexanamine, 4,4'-

| | |
|-------------------------|-------------------------|
| EC50 (48 h) : 6.84 mg/l | Species : Daphnia Magna |
|-------------------------|-------------------------|

Toxicity to Algae - Components:

Methylenebiscyclohexanamine, 4,4'-

| | |
|------------------------------|-----------------|
| EC50 (72 h) : 140 - 200 mg/l | Species : Algae |
|------------------------------|-----------------|

Toxicity to other organisms:

No data available.

Persistence and degradability

Mobility: No data available.

Bioaccumulation: No data available.

Bioaccumulation - Components:

Nonylphenol: Moderate bioaccumulation potential.

Section 13: Disposal Considerations

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| Waste from residues / unused products: | Dispose in an approved incinerator or an approved landfill. 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

CFR

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|------------------------------|---|
| Proper shipping name: | AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Methylenebiscyclohexanamine, Nonylphenol) |
| Class: | 8 |
| UN/ID No.: | UN2735 |
| Packing group: | III |
| NAERG No.: | 153 |

IATA

| | |
|------------------------------|---|
| Proper shipping name: | AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Methylenebiscyclohexanamine, Nonylphenol) |
| Class: | 8 |
| UN/ID No.: | UN2735 |
| Packing group: | III |

IMDG

| | |
|------------------------------|---|
| Proper shipping name: | AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Methylenebiscyclohexanamine, Nonylphenol) |
| Class: | 8 |
| UN/ID No.: | UN2735 |
| Packing group: | III |

CTC

| | |
|------------------------------|---|
| Proper shipping name: | AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Methylenebiscyclohexanamine, Nonylphenol) |
| Class: | 8 |
| UN/ID No.: | UN2735 |
| Packing group: | III |

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.