1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Rhino Linings 55537 Curing Agent

Product Use Description: Epoxy, Curing Agent

Manufacturer/Importer/Distributor: Rhino Linings Corporation
9151 Rehco Road
San Diego, CA, 92121

Telephone: 858-450-0441 Corporate

Emergency telephone number (24h): (CHEMTREC) 800-424-9300 USA

2. HAZARDS IDENTIFICATION

Emergency Overview
Corrosive
Severe eye irritant.
Severe respiratory irritant.
Severe skin irritant.
May cause sensitization by skin contact.

Potential Health Effects

Inhalation: Harmful if inhaled and may cause delayed lung injury. Can cause severe eye, skin and respiratory tract burns. Risk of serious damage to the lungs (by inhalation). May cause nose, throat, and lung irritation. Inhalation of aerosol may cause irritation to the upper respiratory tract. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.

Eye contact: Causes eye burns. May cause blindness. Severe eye irritation.

Skin contact: Causes skin burns.

Ingestion: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Chronic Health Hazard: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may
result in chemical burns and permanent damage. May cause allergic skin reaction.

Exposure Guidelines

Target Organs: Skin. Eyes. Respiratory system.

Symptoms: Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

Aggravated Medical Condition


3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Concentration (Weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tofa, reaction products with TEPA</td>
<td>68953-36-6</td>
<td>&gt; 85%</td>
</tr>
<tr>
<td>Tetraethylenepentamine</td>
<td>112-57-2</td>
<td>&lt; 15 %</td>
</tr>
</tbody>
</table>

CHEMICAL FAMILY: Amidoamine.

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: Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.

Skin contact: Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing. Take off contaminated clothing and shoes immediately.

Ingestion: Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.

Inhalation: 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. Move to fresh air.

Notes to physician

Treatment: NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.
5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical. Dry sand. Limestone powder.

Specific hazards: Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen (NOx) is to be expected. Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

Special protective equipment for fire-fighters: Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear 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. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.

Environmental precautions: Construct a dike to prevent spreading.

Methods for cleaning up: Contact Rhino Linings Emergency Response Center for advice. Approach suspected leak areas with caution. Place in appropriate chemical waste container.

Additional advice: Open enclosed spaces to outside atmosphere. If possible, stop flow of product.

7. HANDLING AND STORAGE

Handling: Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Use only in well-ventilated areas. Avoid breathing vapors and/or aerosols. Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage: Product may partially freeze with extended exposure to cold temperatures, resulting in crystallization, haziness or separation. If this occurs, product should be warmed to 100-140°F (38-60°C) for one hour and stirred until clear. Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.
Technical measures/Precautions
Do not store in reactive metal containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures
Provide readily accessible eye wash stations and safety showers.
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment
Respiratory protection : Wear appropriate respirator when ventilation is inadequate.
Hand protection : Butyl-rubber
Nitrile rubber.
Neoprene gloves.
Impervious gloves.
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Full face shield with goggles underneath.
Chemical resistant goggles must be worn.

Skin and body protection : Impervious clothing.
Full rubber suit (rain gear).
Rubber or plastic boots.
Long sleeve shirts and trousers without cuffs.
Slicker Suit.

Special instructions for protection and hygiene : Discard contaminated leather articles. Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

Exposure limit(s)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Time Weighted Average (TWA)</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetraethylenepentamine</td>
<td>WEEL 1 ppm</td>
<td>5 mg/m3</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid.
Color : Amber.
Odor : Ammoniacal.
Relative density : 0.95 (water = 1)
Vapor pressure : < 20.68 mmHg at 70 °F (21 °C)

Density : 59.307 lb/ft³ (0.95 g/cm³) at 70 °F (21 °C)

pH : Alkaline.

Boiling point/range : > 392 °F (> 200 °C)

Flash point : 195 °C

10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal conditions.

Materials to avoid : CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Nitrous acid and other nitrosating agents. Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. Sodium hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Oxidizing agents.


11. TOXICOLOGICAL INFORMATION

Acute Health Hazard

Ingestion : LD50 : 4,750 mg/kg Species : Rat.

Inhalation : No data is available on the product itself.

Dermal : LD50 : 8,550 mg/kg Species : Rat.

Eye irritation/corrosion : Severe eye irritation.
Skin irritation/corrosion: Severe skin irritation.

Sensitization: Causes sensitization on guinea-pigs. May cause sensitization by skin contact.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects
- Aquatic toxicity: No data is available on the product itself.
- Toxicity to other organisms: No data available.

Persistence and degradability
- Biodegradability: No data is available on the product itself.
- Mobility: No data available.
- Bioaccumulation: No data is available on the product itself.

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.

14. TRANSPORT INFORMATION

DOT
- UN/ID No.: UN2735
- Proper shipping name: Amines, liquid, corrosive, n.o.s., (Polyamidoamine, Aliphatic amine)
- Class or Division: 8
- Packing group: III
- Label(s): 8
- Marine Pollutant: No

IATA
- UN/ID No.: UN2735
- Proper shipping name: Amines, liquid, corrosive, n.o.s., (Polyamidoamine, Aliphatic amine)
- Class or Division: 8
- Packing group: III
- Label(s): 8
- Marine Pollutant: Yes

**NOTE:** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.
IMDG

UN/ID No. : UN2735
Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S., (Polyamidoamine, Aliphatic amine)
Class or Division : 8
Packing group : III
Label(s) : 8
Marine Pollutant : Yes

** NOTE: This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

TDG

UN/ID No. : UN2735
Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S., (Polyamidoamine, Aliphatic amine)
Class or Division : 8
Packing group : III
Label(s) : 8
Marine Pollutant : No

Further Information
The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact an Rhino Linings customer service representative.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

Corrosive. Sensitizer.

<table>
<thead>
<tr>
<th>Country</th>
<th>Regulatory list</th>
<th>Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>TSCA</td>
<td>Included on Inventory.</td>
</tr>
<tr>
<td>EU</td>
<td>EINECS</td>
<td>Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.</td>
</tr>
<tr>
<td>Canada</td>
<td>DSL</td>
<td>Included on Inventory.</td>
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<tr>
<td>Australia</td>
<td>AICS</td>
<td>Included on Inventory.</td>
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<tr>
<td>Japan</td>
<td>ENCS</td>
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<td>South Korea</td>
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<td>China</td>
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<tr>
<td>Philippines</td>
<td>PICCS</td>
<td>Included on Inventory.</td>
</tr>
</tbody>
</table>

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

16. OTHER INFORMATION

HMIS Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
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<tr>
<td>Flammability</td>
<td>1</td>
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<tr>
<td>Physical Hazard</td>
<td>0</td>
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</table>

Disclaimer: The data set forth in this sheet are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Rhino Linings USA, Inc. makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.