


TRIDENT EPOXY RESIN – PART B
Section 1. Product and Company Identification

Product Name: Trident Epoxy Resin – Part B
Supplier: CSNRI | 621 Lockhaven Drive. Houston, TX 77073 | +1 281.590.8491
Emergency Phone Number: 800.424.9300 (CHEMTREC)
 +1 703.741.5970 (Outside the US)
Product Description: Hardener solution
Product Use: Corrosion control, sealant, coating and patching.
Chemical Name or Synonym: N/A

Section 2. Hazards Identification
Classification of the substance or mixture

Acute Toxicity / Oral – Category 4
 Skin corrosion/irritation – Category 1
 Acute Toxicity / Inhalation – Category 4
 Serious eye damage/eye irritation – Category 1
 Skin sensitization - Category 1
 STOT (RE) – Category 2


Hazard Statements:

H302 Harmful if swallowed
 H314 Causes severe skin burns and eye damage.
 H332 Harmful if inhaled
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage
 H373 May cause damage to organs

Signal Word: Danger

Precautionary Statement:

P261 Avoid breathing dust/fume/gas/mist.
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P301+P312 IF SWALLOWED: Call a Poison Center/doctor if you feel unwell.
 P302+P361+P353 IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P362 - Take off contaminated clothing and wash before reuse
 P310 - Immediately call a POISON CENTER or doctor/ physician
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

Section 3. Composition/Information on Ingredients



TRIDENT EPOXY RESIN – PART B

Chemical Name	CAS-No	Weight %
Methyleneoxide (polymer with benzenamine) hydrogenated	135108-88-2	20-60
Benzyl alcohol	100-51-6	12-40
4,4'-Methylene biscyclohexanamine	1761-71-3	1-2
2,4,6-tris(dimethylaminomethyl) phenol	90-72-2	1-2

Section 4. First Aid Measures

First Aid Measures for Accidental:

Eye Exposure: Hold eyelids apart, initiate and maintain gentle irrigation, (flushing), until the patient receives medical care. If medical care is not available maintain irrigation for 1 hour. Remove contact lenses.

Skin Exposure: Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. Get under safety shower after removing clothing. Seek medical attention if irritation develops after area is washed.

Inhalation: If breathing is stopped or labored give assisted respirations. Supplemental oxygen may be indicated. If heart has stopped, give cardiopulmonary resuscitation immediately. Move to fresh air.

Ingestion: Do not induce vomiting. Give one to two cups of milk or water to drink. Do not give anything by mouth to an unconscious person, consult a physician. If vomiting occurs naturally have patient lean forward to reduce the risk of aspiration.

General Advice: Seek medical advice. If breathing has stopped or is labored, give assisted respiration. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately

Most important symptoms/effects, acute and delayed:

Acute Health hazard: Eye, skin and lung damage upon acute contact.

Chronic health Hazard: This product contains no listed carcinogens according to IARC, ACGIH, NTP in concentrations of 0.1%.

Medical Conditions General Aggravated by Exposure: Eye, disease, skin disorders and allergies, asthma.

Over-exposure signs/symptoms: No Available

Section 5. Fire Fighting Measures

Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, dry chemical, dry sand or limestone powder.

Special Fire Fighting Procedures: Use self-contained breathing apparatus, and full protective equipment.

Special Protective Equipment for Fire-fighters: Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. Wear positive pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes helmet, coat, pants, boots, and gloves). Avoid contact with this material during fire-fighting operations. If contact is likely, change to full chemical resistant clothing with SCBA. This will not provide sufficient fire protection, consider fighting fire from a remote location.

Unusual Fire and Explosion Hazards: Incomplete combustion may form carbon monoxide, (co). May generate ammonia and toxic nitrogen oxide gases. Burning produces toxic and noxious fumes. Personnel downwind must be evacuated.

Hazardous Decomposition Materials (Under Fire Conditions): Ammonia, nitrogen oxides, other toxic and noxious gases.


TRIDENT EPOXY RESIN – PART B
Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Construct a dyke if necessary, to prevent spreading. Place waste in appropriate chemical waste container and contact thin film technology for advice regarding disposal. Use self-contained breathing apparatus and chemically protective clothing if severe exposure is a possibility.

Cleanup and Disposal of Spill: Soak up with inert absorbent material, collect into closable labeled containers and dispose of in accordance with applicable local and federal environmental control regulations.

Section 7. Handling and Storage

Precautions for safe handling: Put on appropriate personal protective equipment (see Section 8). Do not use sodium nitrite or other nitrosating products in formulations using this product. Avoid prolonged or repeated contact with the skin. Wash thoroughly after handling. Ensure there is adequate ventilation in the work area. Avoid breathing vapors of heated material. Never apply direct flame to any container of product.

Conditions for safe storage including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in dry, cool, well ventilated area, away from incompatible materials (see Section 10) and food and drink. Do not store near acids. Keep away from alkalis. Keep containers tightly closed in a cool, well ventilated space. Recommended storage temperatures are 10 - 35°C.

Section 8. Exposure Controls / Personal Protection

Exposure Guideline Limits: Not established for any ingredient

Appropriate Engineering Controls: Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. Provide readily accessible eye wash stations and safety showers.

Personal Protective Equipment:

Respiratory Protection: None normally required. In case of inadequate ventilation use NIOSH-approved respirator.

Eye / Face Protection: Wear splash proof chemical goggles and/or face shield if splashing is possible.

Skin Protection: Wear suitable impervious rubber or plastic gloves such as neoprene, nitrile rubber or butyl-rubber. Wear impervious clothing such as rain gear if bodily contact might be possible.

Section 9. Physical and Chemical Properties

Physical Appearance:	Dark green light paste
Odor:	Ammonia like
Odor Threshold:	ND
pH:	11 - 12
Melting Point Range:	<32 °F (<0 °C)
Boiling point:	>420 °F (>215 °C)
Evaporation rate:	Slower than ether
Flash Point:	>212°F (100°C)
Method Used:	Closed Cup
Flammability Limits (vol/vol%):	Lower: N/A Upper: N/A
Vapor Pressure:	<0.7mm Hg at 21 °C/70 °F
Vapor Density:	(Air = 1) at 21 °C/70 °F: 3.72 vs. Water = 1
Relative Density:	ND


TRIDENT EPOXY RESIN – PART B

Specific Gravity (H₂O = 1):	1.6 at 21 °C/70 °F
Water Solubility:	Very slightly soluble in cold water
Partition coefficient (n-octanol/water):	ND.
Auto-ignition Temperature:	ND
Decomposition Temperature:	ND
Viscosity:	45,000 cPs
Percent Solids by Weight:	>99.5
Percent Volatile by Weight:	<0.5

Section 10. Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical Stability: Stable under standard use and storage conditions.

Conditions to Avoid: Contact with acids. CAUTION: N-nitrosamines, many of which are potent carcinogens, may be formed when the mixture comes in contact with nitrous acid, nitrites or high concentrations of nitrous oxide. Avoid contact with acids, oxidizing agents, sodium hypochlorite.

Incompatible Materials / Chemicals: Acids, oxidizing agents, sodium hypochlorite.

Hazardous Decomposition Products: Nitrosamines, phenolics, carbon monoxide, carbon dioxide and other organic fragments of thermal decomposition.

Hazardous Polymerization: Self polymerization will not occur

Section 11. Toxicological Information
Toxicological effects:

Ingestion: LD50: > 3,000mg/kg (rat)

Inhalation: No data

Dermal: LD50: >5,000mg/kg (rat)

Inhalation: May cause irritation of the respiratory tract.

Ingestion: May cause gastrointestinal irritation if swallowed.

Eye contact: May cause eye irritation or burns. May cause permanent visual impairment.

Skin contact: Exposure may cause skin irritation and burns.

Chronic Health Effects: Eye, skin and lung damage upon acute contact. 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 liver, kidney adrenals and spleen. The no-observed-adverse-effect-level, (NOAEL), was 15 mg/kg/day.

Delayed and immediate effects and also chronic effects from short and long-term exposure:

Short term exposure: No specific data.

Long term exposure: No specific data

Section 12. Ecological Information

Ecotoxicity: No data is available on the mixed product.

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: Does not bioaccumulate.

Mobility in soil: No further relevant information available.

Other adverse effects: No further relevant information available.


TRIDENT EPOXY RESIN – PART B
Section 13. Disposal Considerations

Waste treatment methods: Do not dump to ground, sewer or watercourses. Discard any product, residue, disposable container or liner in full compliance with Federal, State, and Local regulations.

Uncleaned packagings: Dispose of in accordance to all local, state, and/or national regulation.

Section 14. Transport Information
IMDG / RID / IATA / ADR

UN number:	UN 2735
UN proper shipping name:	Amines, liquid, corrosive, n.o.s. (Methyleneoxide (polymer with benzenamine) hydrogenated)
Transport hazard class:	Class 8
Packing group:	II
Environmental hazard:	No
Packing instruction (cargo aircraft):	855
Packing instruction (passenger aircraft):	851

Section 15. Regulatory Information
U.S. Federal Regulations

TSCA (toxic substance control act) components: None

State Regulations: California proposition 65: This product does not contain any chemicals known to the state of California to cause cancer or birth defects.

Section 16. Other Information
Key Legend Information:

N/A – Not Applicable

ND – Not Determined

ACGIH – American Conference of Governmental Industrial Hygienists

OSHA – Occupational Safety and Health Administration

PEL – Permissible Exposure Limit

NIOSH – National Institute for Occupational Safety and Health

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