

Section 1. Identification

Product Name: CSC-600-B (Part B Hardener)
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 resin for epoxy
Product Use: Reinforcement for pipe repair
Chemical Name or Synonym: Standard Temperature Contour (Part B Hardener)

Section 2. Hazards identification
Classification of the substance or mixture

Skin corrosion/irritation – Category 1B
 Eye damage/irritation – Category 1
 Sensitization/skin – Category 1B
 Acute toxicity/oral – Category 4
 Acute toxicity / Inhalation– Category 3
 Acute toxicity / Dermal – Category 2
 STOT (RE) – Category 1
 Reproductive Toxicity - Category 2

Label Elements:

Hazard Statements:

H302 - Harmful if swallowed.
 H312 - Harmful in contact with skin.
 H314 - Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H331 Toxic if inhaled
 H318 Causes serious eye damage
 H361 Suspected of damaging fertility or the unborn child
 H372 May cause damage to organs through prolonged or repeated exposure.

Signal word: Danger

Precautionary statement:

P264 Wash thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
 P302+P352 IF ON SKIN: Wash with plenty water.
 P333+P313 If skin irritation or rash occurs: Get medical advice
 P301+P312 IF SWALLOWED: Call a Poison Center/doctor if you feel unwell.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P312 Call a POISON CENTER if you feel unwell



Other information: None known

Section 3. Composition/ Information on Ingredients

Substances: Not applicable

Mixture:

Component	CAS #	Weight %
Isophoronediamine	2855-13-2	60 – 90
Tetraethylenepentamine	112-57-2	15 – 40
Benzyl alcohol	100-51-6	1 – 10
2,4,6-tri(dimethylaminomethyl) phenol	90-72-2	1 – 10
Triethylenetetramine	112-24-3	1 – 10
Phenol	108-95-2	1 – 8

Section 4. First Aid Measures

First Aid Measures for Accidental:

Ingestion: Do not induce vomiting. Give large amounts of water followed by milk if available. Do not give anything to a victim who is drowsy, unconscious, or convulsing. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Seek medical attention immediately.

Inhalation: Remove source of exposure or move person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Immediately call a doctor.

Skin Contact: Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with lukewarm, gently flowing water for a duration of 30 minutes or until medical aid is available. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before re-use or discard.

Eye Contact: Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 30 minutes or until medical aid is available. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER/doctor.

Most important symptoms/effects, acute and delayed: No data available

Indication of immediate medical attention and special treatment needed: Treat symptomatically.

Section 5. Fire Fighting Measures

Suitable extinguishing media: Dry chemical, foam, carbon dioxide water spray or fog is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Unsuitable extinguishing media: No data available.

Special hazards arising from the substance or mixture: No data available.

Hazardous Decomposition Materials (Under Fire Conditions): Oxides of carbon and nitrogen, hydrocarbon fragments and organic decomposition fragments.

Special Protective Equipment and Precautions for Fire Fighters: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear. Isolate immediate

hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Exclude sources of ignition and ventilate the area. Refer to protective measures listed in sections 7 and 8. Wear approved respirator. Wear proper personal protective equipment. Remove any sources of ignition from the area and allow hot surfaces to cool.

Environmental precautions: Use appropriate containment to avoid environmental contamination. Do not allow to penetrate into soil, waterbodies or drains.

Methods and materials for containment and cleaning up: Absorb spill with inert material (e.g: dry sand, or earth), then place in a chemical waste container. After removal, flush spill area with soap and water to remove trace residue. Avoid personal contact and breathing vapors or mists.

Section 7. Handling and Storage

Precautions for safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid contact with skin and eyes. Avoid generation of dust. Wear suitable protective clothing and gloves. When using do not eat, drink or smoke. Wash hands before breaks and after work. In case of development of vapors or dust: Do not inhale vapors or dust particles. The use of local exhaust ventilation is recommended.

Conditions for safe storage including any incompatibilities: Keep container tightly closed in a cool, well ventilated place. Store in a dry place. Keep away from heat sources, sparks and open flames. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Section 8. Exposure Controls / Personal Protection

Exposure Guidelines:

Component	OSHA – TWA	NIOSH	ACGIH
Phenol	5 ppm – 19 mg/m ³	5 ppm – 19 mg/m ³	5 ppm – 19 mg/m ³ A4 - Carcinogen A4 - Notations

Appropriate engineering controls: Provide adequate ventilation. In case of development of vapors or dust: The use of local exhaust ventilation is recommended.

Personal protective equipment

Hygiene measures: Avoid contact with skin. Wash hands before eating, smoking or using the lavatory. Appropriate techniques should be used for removal of potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

Eye / Face Protection: Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.


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Skin Protection: Wear chemical resistant impervious gloves and suitable protective clothing. Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Environmental exposure controls: Do not allow material to contaminate ground water system.

Section 9. Physical and Chemical Properties

Appearance (color):	Pale yellow
Odour:	No data available
Odour threshold:	No data available
pH:	No data available
Melting point range:	Not applicable
Initial Boiling point/boiling range:	No data available
Flash Point:	> 200 °F (93 °C)
Evaporation rate:	No data available
Percent volatile:	No data available
Flammability (solid, gas):	Flash Point at or above 200 °F
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	<0.5mm HG@20 °C
Vapour density:	(air=1)>1
Relative density:	No data available
Specific gravity:	0.95
Solubility in water:	Slightly Miscible
Partition coefficient (n-octanol/water):	Not applicable
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
VOC Content:	8.00 %

Other information:

VOC Actual: 75.64 g/l

Section 10. Stability and Reactivity

Reactivity: Stable at normal conditions of use.

Chemical stability: Stable at normal temperature and pressure.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Avoid contact with heat and flame.

Incompatible materials: Strong oxidizing agents and acids.

Hazardous decomposition products: Oxides of carbon and nitrogen, hydrocarbon fragments and organic decomposition fragments.

Section 11. Toxicological Information
Acute Toxicity:

Respiratory / Sensitization: Inhalation of vapors may cause irritation of the respiratory tract. May cause an allergic skin reaction

Serious Eye Damage/Irritation: Corrosive to eyes and may cause severe damage including blindness. Causes serious eye damage.

Skin corrosion: Causes severe skin burns and eye damage.

Aspiration Hazard: No Data Available

Carcinogenicity: No Data Available

Germ Cell Mutagenicity: No Data Available

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Repeated Exposure: Causes damage to organs through prolonged or repeated exposure.

Specific Target Organ Toxicity - Single Exposure: No Data Available

Numerical measures of toxicity:

Phenol:

LD50 (oral, rat): 340 mg/kg (20% solution)

LD50 (oral, rat): 530 mg/kg (2 and 5% solutions)

LD50 (oral, rat): 320 mg/kg (cited as 0.30 cc/kg)

LD50 (dermal, pig): 500 mg/kg (liquefied phenol (45 deg C)) (2/3 animals died)

Section 12. Ecological Information

Aquatic toxicity: No data available

Mobility in soil: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Other Adverse Effects: No data available

Section 13. Disposal Considerations

Waste treatment methods: Under RCRA it is the responsibility of the user of the product to determine the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Uncleaned packaging: Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purpose. Return drums to reclamation centers for proper cleaning and reuse.

Section 14. Transport Information

US DOT / RID (Road/rail)

Proper shipping name: Isophoronediamine

UN number: 2289

Hazard Class: 8

Packing group: III

IMDG (Sea)

Proper shipping name: Isophoronediamine

UN number: 2289

Hazard Class: 8

Packing group: III

**IATA / ICAO (Air)****Proper shipping name:** Isophoronediamine**UN number:** 2289**Hazard Class:** 8**Packing group:** III**Section 15. Regulatory Information****Safety, health and environmental regulations/legislation specific for the substance or mixture:**

TSCA Inventory: All ingredients are listed

SARA 312: All ingredients are listed

Section 16. Other Information**Key Legend Information:**

N/A – Not Applicable

OSHA – Occupational Safety and Health Administration

ACGIH – Association Advancing Occupational and Environmental Health

CAS- Chemical Abstract Service

HMIS- Hazardous Material Information Service

NFPA – National Fire Protection Association

SARA (Title III)- Superfund Amendments and Reauthorization Act;

WHMIS- Workplace Hazardous Materials Information System.

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