

## Section 1. Identification

**Product Name:** CSC-600-A (Part A Epoxy Resin)  
**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:** Epoxy resin  
**Product Use:** Reinforcement for pipe repair  
**Chemical Name or Synonym:** Standard Temperature Contour (Part A Epoxy Resin)

## Section 2. Hazards identification

### Classification of the substance or mixture

Flammable Liquids Category 2  
 Skin Irritation - Category 2  
 Skin Sensitizer - Category 1  
 Eye Irritation - Category 2  
 Acute toxicity, Oral - Category 5  
 Specific Target Organ Toxicity - Repeated Exposure - Category 2  
 Acute aquatic toxicity - Category 2  
 Chronic aquatic toxicity - Category 2

### Label Elements:



**Signal word:** Danger

### Hazard statements:

H225 - Highly flammable liquid and vapor  
 H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H319 - Causes serious eye irritation  
 H303 - May be harmful if swallowed  
 H373 - May cause damage to organs through prolonged or repeated exposure.  
 H411 - Toxic to aquatic life with long lasting effect  
 H401 - Toxic to aquatic life

### Precautionary statement:

P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
 P234 - Keep only in original container.  
 P235 - Keep cool.  
 P240 - Ground/Bond container and receiving equipment.  
 P261 - Avoid breathing dust/fume /gas/mist/vapours/spray.


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P272 - Contaminated work clothing should not be allowed out of the workplace.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P370 + P378 In case of fire: Use CO<sub>2</sub>, Water spray, alcohol-resistant foam, DRY chemical to extinguish.  
 P302+P352 - IF ON SKIN: Wash with plenty of water.  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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  
 P362+P364 - Take off contaminated clothing and wash it before reuse.  
 P370+P378 - In case of fire: Use dry chemical, carbon dioxide to extinguish small fires. Use water for  
 P403 - Store in a well-ventilated place.  
 P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.  
**Other information:** None known

**Section 3. Composition/ Information on Ingredients**

**Substances:** N/A

**Mixture:**

Component	CAS #	Weight %
Bisphenol A diglycidyl ether polymer	25068-38-6	60 – 100
Butane, 1,4-bis(2,3-epoxypropoxy)	2425-79-8	>40
Proprietary	Proprietary	Traces
Methanol	67-56-1	0.2 – 0.4

**Section 4. First Aid Measures**
**First Aid Measures for Accidental:**

**Ingestion:** If swallowed, do not induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If unconscious place in a recovery position and get medical help immediately.

**Inhalation:** Remove to fresh air. If symptoms persist, seek medical attention. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin Contact:** Flush contaminated skin with plenty of soap and water for 15 to 20 minutes, remove contaminated shoes and clothing. Wash contaminated clothing thoroughly with water before removing it or wear gloves. Consult physician if symptoms develop.

**Eye Contact:** Flush with plenty of water for at least 15 to 20 minutes or until chemical has been removed. Check for and remove any contact lenses. If symptoms persist, seek medical attention.

**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:** High pressure water jet, Water may cause frothing.



**Special hazards arising from the substance or mixture:** Hazardous decomposition products formed under fire conditions.

**Hazardous Decomposition Materials (Under Fire Conditions):** Carbon monoxide, carbon dioxide and various hydrocarbons upon thermal decomposition.

**Special Protective Equipment and Precautions for Fire Fighters:** Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. 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. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

## 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
Methanol	200 ppm – 260 mg/m <sup>3</sup>	TWA: 200 ppm – 260 mg/m <sup>3</sup> STEL – 325 mg/m <sup>3</sup>	TWA: 200 ppm – 262 mg/m <sup>3</sup> STEL: 250 ppm – 328 mg/m <sup>3</sup>

**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. Use NIOSH approved organic vapor cartridge respirator when vapor mist exposure is likely.

**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.

**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):	Clear liquid
Odour:	No data available
Odour threshold:	No data available
pH:	Neutral
Melting point range:	Not applicable
Initial Boiling point/boiling range:	No data available
Flash Point:	No data available
Evaporation rate:	<1 (butyl acetate = 1)
Percent volatile:	<1
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	Negligible
Vapour density:	>1 (Air = 1)
Relative density:	Not applicable
Specific gravity:	1.16
Solubility in water:	Negligible
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:	0.70 %
<b>Other information:</b>	
VOC Actual:	8.06 g/l
% Solids by weight:	99.30%

### Section 10. Stability and Reactivity

**Reactivity:** Stable at normal conditions of use.

**Chemical stability:** Stable at normal temperature and pressure.

**Possibility of hazardous reactions:** No data available.

**Conditions to avoid:** Avoid contact with heat, flame, spark and another igniter. Avoid radical forming substances (metal-ions, peroxides). Uncontrolled polymerization may cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers.

**Incompatible materials:** Oxidizing agents, acids and bases.

**Hazardous decomposition products:** Carbon monoxide, carbon dioxide and various hydrocarbons upon thermal decomposition.

### Section 11. Toxicological Information

**Acute Toxicity:**

Ingestion: May cause gastrointestinal disturbances such as nausea, vomiting, diarrhea and effects similar to those described in inhalation. Aspiration of this product into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

**Aspiration Hazard:** No Data Available

**Carcinogenicity:** No Data Available

**Germ Cell Mutagenicity:** No Data Available

**Reproductive Toxicity:** No Data Available

**Respiratory/Skin Sensitization:** May cause respiratory tract irritation. May cause an allergic skin reaction.

**Serious Eye Damage/Irritation:** Causes serious eye irritation.

**Skin Corrosion/Irritation:** Causes skin irritation.

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

**Specific Target Organ Toxicity - Single Exposure:** Exposure to high concentrations of vapors may cause central nervous system effects, including headache, drowsiness, and incoordination.

### Section 12. Ecological Information

**Aquatic toxicity:** Toxic to aquatic life with long lasting effects.

**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

**DOT (Department of Transportation):** Not regulated

**IMDG (Sea)**

**Proper shipping name:** Environmentally Hazardous Substance, Liquid, N.O.S. (Bisphenol A Epoxy Resin)

**UN number:** 3082

**Hazard Class:** 9

**Packing group:** III

**IATA / ICAO (Air)****Proper shipping name:** Environmentally Hazardous Substance, Liquid, N.O.S. (Bisphenol A Epoxy Resin)**UN number:** 3082**Hazard Class:** 9**Packing group:** III**ADR / RID (Rail)****Proper shipping name:** Environmentally Hazardous Substance, Liquid, N.O.S. (Bisphenol A Epoxy Resin)**UN number:** 3082**Hazard Class:** 9**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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