

Section 1. Identification

Product Name: CS-106 Part A
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: Intended to repair pipes

Section 2. Hazards Identification

Classification of the substance or mixture

Skin corrosion / irritation – Category 2
 Eye damage / irritation – Category 2
 Sensitization / skin – Category 1
 Chronic aquatic hazard – Category 2

Hazard pictograms:



Signal word: Warning

Hazard statements:

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P280 Wear protective gloves.
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313: If eye irritation persists: Get medical advice/attention
 P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other hazards: None known.

Section 3. Composition/Information on Ingredients

Mixture:

Component	CAS #	% by Weight
Reaction product: bisphenol - A- (epichlorhydrin) epoxy resin (number average molecular weight<700)	25068-38-6	40 – 70

Diglycidyl Ether of Bisphenol-F

28064-14-4

20 - 40

Section 4. First Aid Measures

First Aid Measures for Accidental:

Inhalation: Remove source of exposure or move to fresh air.

Skin contact: Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation or a rash occurs, get medical advice/attention.

Eye contact: Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice/attention.

Ingestion: Do not induce vomiting; immediately call for medical help.

First-aid comments: Some of the first-aid procedures recommended here require advanced first-aid training.

Most important symptoms and effects, both acute and delayed: Allergic reactions. Nausea. Coughing. Gastric or intestinal disorders. Irritant to skin and mucous membranes. Irritant to eyes.

Indication of any immediate medical attention and special treatment needed: Contains reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight < 700). May produce an allergic reaction, if necessary oxygen respiration treatment. Later observation for pneumonia and pulmonary edema. Medical supervision for at least 48 hours.

Section 5. Fire-fighting Measures

Suitable extinguishing media: Water haze or fog. Foam. Fire-extinguishing powder. Carbon dioxide.

Unsuitable extinguishing media: Water with full jet, Water spray.

Special protective equipment and precautions for firefighters: Wear self-contained respiratory protective device. Wear fully protective suit. Cool endangered receptacles with water fog or haze. Eliminate all ignition sources if safe to do so.

Specific hazards arising from the chemical: Formation of toxic gases is possible during heating or in case of fire.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the Personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental precautions: If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and material for containment and cleaning up: Absorb liquid components with liquid-binding material. Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

Section 7. Handling and Storage

Precautions for Safe Handling: Only use where there is adequate ventilation. Wear personal protective equipment to avoid direct contact with this chemical. Keep containers tightly closed when not in use or empty.

Conditions for Safe Storage: Store in cool, dry place in tightly closed receptacles (60-80°F recommended). Store in an area that is: well-ventilated. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.

Section 8. Exposure Controls/Personal Protection

Exposure Limits: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Appropriate Engineering Controls: Use a local exhaust ventilation and enclosure, if necessary, to control amount in the air.

Personal Protective Equipment:

Respiratory protection: Not required under normal conditions of use. Use suitable respiratory protective device in case of insufficient ventilation. For spills, respiratory protection may be advisable. Use respiratory protection when grinding or cutting material.

Eye protection: Wear chemical safety goggles.

Skin protection: Wear protective, impervious gloves. (Neoprene, PVC, Nitrile rubber). The glove material has to be impermeable and resistant to the product / the substance/ the preparation. Wear protective work clothing, where potential exposure warrants, rubber or plastic boots and chemically resistant protective suit.

Section 9. Physical and Chemical Properties

Physical Appearance:	Clear liquid
Odor:	Sweet
pH:	No data available
Flash Point:	>302 °F / >150 °C
Melting Point Range:	No data available
Boiling point:	>392 °F / >200 °C
Evaporation rate (ether=1):	No data available
Flammability (solid, gas):	No data available
Specific Gravity:	No data available
Viscosity:	1,000 – 2,000 cps
Water Solubility:	Not miscible or difficult to mix.
Solubility in other solvents:	No data available
Vapor Pressure:	No data available
Vapor density (Air=1)	No data available
Relative Density:	1.15 g/cm ³ at 20 °C
Partition coefficient (n-octanol/water):	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
VOC Content (%):	No information available
Flammability Limits in Air:	No data available

Section 10. Stability and Reactivity

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Normally stable.

Possibility of hazardous reactions: Reacts with strong alkali. Exothermic polymerization. Reacts with strong acids and oxidizing agents. Reacts with catalysts.

Conditions to avoid: Avoid contact with strong oxidizing agents, excessive heat or flames.

Incompatible materials: Strong acids, bases and oxidizing agents.

Hazardous decomposition products: Carbon monoxide and carbon dioxide.

Section 11. Toxicological Information

Information on likely routes of exposure:

Inhalation: May cause respiratory irritation

Ingestion: No data

Skin contact: May cause skin irritation

Eye contact: May cause eye irritation

Symptoms related to physical, chemical and toxicological characteristics: No data available

Delayed and immediate effects as well as chronic effects from short and long term exposure:

Acute toxic:

Oral LD50>2,000 mg/kg (rat)

Dermal LD50>2,000 mg/kg (rat)

Inhalation No data

Skin Corrosive/irritant: Test material was slightly irritating to skin in key studies. For the skin, mean erythema and edema scores were 0.8 and 0.5 respectively.

Serious eye damage/eye irritation: Test material was slightly irritating to the eye in key studies. The mean eye score was 0.4.

Respiratory sensitization: No data available

Skin sensitization: In a local lymph node assay, the concentration that would cause a 3-fold increase in proliferation (EC-3) was calculated to be 5.7% which is consistent with moderate dermal sensitization potential.

Numerical measures of toxicity: No data available for mixture.

Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU, Classification Guidelines for Preparations as issued in the latest version: Irritant, Danger through skin absorption. Toxic and /or corrosive effects may be delayed up to 24 hours. Inhalation of concentrated vapours as well as oral intake will lead to anesthesia-like conditions and headache, dizziness, etc.

Section 12. Ecological Information

Toxicity:

12.1 Toxicity

Aquatic toxicity:

(Data taken from SDS of primary component, Reaction product: bisphenol - A- (epichlorhydrin) epoxy resin)

Fish: 96hr-LC50 = 3.6mg/L test mat. Oncorhynchus mykiss (direct application, nominal) (OECD Guideline 203) LC50 1.41 mg/L 96hr Oryzias latipes.

Crustacea: 48hr-EC50 = 2.8mg/L test mat Daphnia magna (direct application, nominal, based on: mobility) (OECD Guideline 202) EC50 1.7mg/L 48hr.

Aquatic Plant: 72hr-EC50 > 11 mg/L Scenedesmus capricornutum water soluble fraction (meas. (arithm. mean) based on: growth rate (EPA-660/3-75-009).

Persistence and degradability: No data available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

Section 13. Disposal Considerations

Waste treatment methods: Bury in a licensed landfill or burn in an approved incinerator according to federal, provincial/state, and local regulations.

Uncleaned packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of in accordance to all local, state, national and/or international legislation/regulations.

Section 14. Transport Information

DOT

UN number: Not Regulated

IATA

UN number: Not Regulated

IMDG

UN number: Not Regulated

TDG

UN number: Not Regulated

Section 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

United States (USA)

SARA

Section 355 (extremely hazardous substances): None of the ingredients is listed.

Section 313 (Specific toxic chemical listings): Component(s) above the minimum level: None

TSCA (Toxic Substances Control Act): All the ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer: None

Canada

Canadian Domestic Substances List (DSL): All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%): None of the ingredients is listed.

Canadian Ingredient Disclosure list (limit 1%): None of the ingredients is listed.

Chemical Safety assessment: A Chemical Safety Assessment has not been carried out.

Section 16. Other Information

HMIS Rating:



Health: 2
Flammability: 1
Physical Hazard: 0

Abbreviation and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienist.

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substance

CAS: Chemical Abstracts Service (division of the American Chemical Society)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

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