Section 1. Product and Company Identification

Product Name: SFE 270 – 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 solution
Product Use: Intended to repair pipes

Section 2. Hazard Identification

Classification of the substance or mixture:
Skin corrosion/irritation - Category 2
Eye damage/eye irritation - Category 2A
Skin sensitization - Category 1
Chronic Aquatic Toxicity - Category 2

Hazard pictograms:

Signal Word: Warning
Hazard Statements:
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H411 Toxic to aquatic life with long lasting effects
Precautionary Statement:
P273 Avoid release to the environment
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P362 Take off contaminated clothing and wash before reuse
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: get medical advice / attention.
Other hazards: None known.

Section 3. Composition/ Information on Ingredients

Substances: Not applicable
Mixture:

Chemical Name	CAS-No	Weight %
Phenol, polymer with formaldehyde, glycidyl ether	28064-14-4	90 – 100

Section 4. First Aid Measures

Description of first-aid measures:

General advice: If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Skin contact: Remove contaminated clothing. Wipe excess from skin. Lather with waterless skin cleaner and then wash with warm soap and water. If irritation occurs, get medical attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses. Protect unharmed eye. If symptoms persist, call a physician.

Ingestion: Do not induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed: None known.

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

Section 5. Fire Fighting Measures

Suitable extinguishing media: Carbon dioxide, foam, dry chemical, water fog.

Unsuitable extinguishing media: High volume water jet.

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

Special protective actions for fire-fighters: Use water to keep fire exposed containers cool. Do not use high volume water jet on the fire as this may spread the area of the fire. Wear complete firefighting gear and self-contained breathing apparatus to protect against potential harmful and/or irritating fumes.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the involved area. Avoid contact with eyes, skin and clothing. Use gloves and safety glasses.

For non-emergency personnel: Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid contact with eyes, skin and clothing. Use gloves and safety glasses.

For emergency responders: Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.

Environmental precautions: Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Avoid release to the environment

Methods and material for containment and cleaning up: Stop leak without additional risk. Dike and absorb with inert absorbent material (*e.g.*, sand, silica gel, acid binder, universal binder, sawdust) and collect in a suitable, closed and labeled container. Dispose of in accordance with applicable local and federal environmental control regulations.

Section 7. Handling and Storage

Precautions for safe handling: Ventilate work area. Avoid skin contact. Skin contact with hot material may cause thermal burns. Wash skin thoroughly after handling. Launder contaminated clothing before reuse or discard. Never apply a direct flame to any container of product.
Conditions for safe storage including any incompatibilities: Store in a cool, dry place with adequate ventilation. Keep in original containers. Store in tightly closed containers to prevent moisture absorption and loss of volatiles. Store away from heat and open flame.

Section 8. Exposure Controls / Personal Protection

Control parameters: Contains no substances with occupational exposure limit values.
Appropriate engineering controls: Ventilation must be adequate for most operations.
Individual protection measures:

Eye / face protection: Wear safety glasses with side shields or chemical splash goggles when exposure is more likely.
Skin protection: Wear liquid-proof, chemical resistant gloves (nitrile-butyl rubber, neoprene, butyl rubber or natural rubber) and full body-covering clothing.
Respiratory protection: In case of inadequate ventilation wear respiratory protection**.** Use respirators when exposure to vapors from heated material.

Other information: Wash thoroughly after handling. Avoid breathing vapors from heated material. Protective skin cream barriers can be applied to hands in addition to gloves for added protection.

Section 9. Physical and Chemical Properties

Physical state:	Liquid
Color:	Light yellow
Odor:	Slight
Odor Threshold:	No data available
Melting Point Range:	No applicable
Boiling point:	> 200 °C
Flammability (solid, gas):	No data available
Flammability Limits in Air:	Not established for this product
Flash Point:	> 200 °C (Method: Pensky-Martens closed cup)
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
pH:	7 at 20 °C
Viscosity:	58,300 cP at 77 °F (Method: Rheometer)
Water Solubility:	Insoluble
Solubility in other solvents:	Practically insoluble (20 °C)
Partition coefficient (n-octanol/water):	No data available
Vapor Pressure:	< 0.0001 hPa (20 °C)
Density:	1.22 g/cm^3 at 20 °C
Vapor density (Air=1)	No data available
Evaporation rate (ether=1):	No data available

Section 10. Stability and Reactivity

Reactivity: No decomposition if stored and applied as directed
Chemical stability: Stable under standard normal conditions.
Possibility of hazardous reactions: None under normal processing.
Conditions to avoid: To avoid thermal decomposition, do not overheat. Incompatible products.
Incompatible materials: Acids. Bases**.** Strong acids. Strong oxidizing agents. Reacts with amines.
Hazardous decomposition products: Carbon oxides. Burning produces noxious and toxic fumes.

Section 11. Toxicological Information

Acute toxicity:

Oral	Dermal	Inhalation
> 5,000 mg/kg (Rat)	> 2,000 mg/kg LD50 (Rat, male and female)	No data available

Skin corrosion/irritation: May cause skin irritation and / or dermatitis.
Serious eye damage / eye irritation: May cause irreversible eye damage.
Respiratory or skin sensitization: May causes sensitization**.**
Germ cell mutagenicity: No information available.
Carcinogenicity: Negative results for oral and dermal routes. Tested on male and female rat species. Method OECD Test Guideline 453
Reproductive toxicity:

- No effects on fertility and early embryonic development were detected in oral application route. Tested on Rat (male and female). Method OECD Test Guideline 416.
- No observed adverse effect level in dermal application route: 30 mg/kg body weight. No teratogenic effects. Tested on rabbit (female).
- No observed adverse effect level in oral application route: 60 mg/kg body weight. No teratogenic effects. Tested on rabbit (female). Method OECD Test Guideline 414.
- No observed adverse effect level in oral application route: 180 mg/kg body weight. Tested on rat (female). Method OECD Test Guideline 414.

Developmental toxicity: No information available.
STOT- single exposure: No information available.
STOT- repeated exposure: No information available.
Aspiration Hazard: No information available.
Information on the likely route of exposure: No information available.
Symptoms related to the physical, chemical and toxicological characteristics: No information available.
Delayed and immediate effects and also chronic effects from short and long term exposure:
Short term exposure: No information available.
Long term exposure: No information available.
Numerical measures of toxicity: No information available.

Section 12. Ecological Information

Toxicity effects: Chronic toxicity to fish

Chemical Name	Freshwater fish (LC50)	Daphnia / aquatic invertebrates (EC50)	Algae freshwater (EC 50)
Phenol-formaldehyde polymer, glycidyl ether	2 mg/L – 96h	2 mg/L – 24h	9.4 mg/L – 72h

Persistence and degradability: Not readily biodegradable
Bioaccumulative potential: Does not bioaccumulate.
Mobility in soil: No information available.
Other adverse effects: No information available.

Section 13. Disposal Considerations

Waste treatment methods: Do not dump to ground, sewers or watercourses. Dispose of at a licensed waste disposal facility utilizing methods that are in compliance with all applicable federal, state and local laws regulations. Waste characterization and compliance with applicable laws are the responsibility solely of the waste generator. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport Information

DOT: Not Regulated

IATA

UN number:	UN 3082
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (EPOXY PHENOL NOVOLAC RESIN)
Transport hazard class:	Class 9
Packing group:	III
Environmental hazard:	Marine pollutant
Packing instruction (cargo aircraft):	964

IMDG

UN number:	UN 3082
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (EPOXY PHENOL NOVOLAC RESIN)
Transport hazard class:	Class 9
Packing group:	III
Environmental hazard:	Marine pollutant
EMS number:	F-A, S-F

Transport in bulk according to Annex I of MRPOL 73/78 and the IBC Code

Section 15. Regulatory Information

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

US federal regulations:
SARA Title III Section 311/312 (40CFR370): Acute health hazard
SARA Title III Section 313 (40CFR372): No reportable components
CERCLA Status (40CFR302): No reportable quantity components
OSHA/NTP/IARC Carcinogen status: Not listed.
TSCA Status: All components are listed on TSCA Inventory or otherwise comply with TSCA requirements.

US state regulations:

California Prop. 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.

International regulations:
Canada WHMIS Classification: D2B
The components of this product are reported in the following international inventories:

CH INV	ENCS	IECSC
DSL	KECI	TCSI
AICS	PICCS	NZIoC

Section 16. Other Information

Further information:
NFPA:

2 – Health
1 – Flammability
0 – Instability

Abbreviations and acronyms used:

CAS:	Chemical Abstracts Service
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Dangerous Goods
N/A:	Not Applicable
ND:	Not Determined
NIOSH:	National Institute for Occupational Safety and Health
OSHA:	Occupational Safety and Health Administration
DSL:	Canada Domestic Substance List
CH INV:	Switzerland Chemical Inventory
AICS:	Australian Inventory of Chemical Substances
NZIoC:	New Zealand Inventory of Chemicals
ENCS:	Japanese Existing and New Chemical Substances Inventory
KECI:	Korea Existing Chemicals Inventory
PICCS:	Philippine Inventory of Chemicals and Chemical Substances
IECSC:	Inventory of Existing Chemical Substance in China
TCSI:	Taiwan Chemical Substance Inventory

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