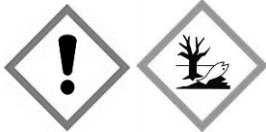


**Section 1. Product and Company Identification**

**Product Name:** Thermo-Fill HT 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  
**Chemical Name or Synonym:** N/A

**Section 2. Hazards 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

**Label Elements:**

**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

**Signal Word:** Warning

**Precautionary Statement:**

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  
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P273 - Avoid release to the environment  
 P391 - Collect spillage

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

Chemical Name	CAS-No	Weight %
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4	45 – 80
Trimehylolpropane triglycidyl ether	3454-29-3	5 – 10
Propane 2,2 bis[p-2,3 epoxypropoxy]phenyl]-polymers	25085-99-8	1 – 5
Siloxanes and silicones, di-Me, reaction products with silica	67762-90-7	3 – 10

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

**Eye Contact:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

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

**Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Most important symptoms/effects, acute and delayed:** Itching. Rashes. Eye irritation/reactions. Skin irritation.

**Indication of immediate medical attention and special treatment needed:** May cause sensitization of susceptible persons. Treat symptomatically.

**Section 5. Fire Fighting Measures**

**Suitable Extinguishing Media:** Carbon dioxide, foam, dry chemical, water fog.

**Unsuitable Extinguishing Media:** Do not use high volume water jet on the fire as this may spread the area of the fire.

**Special Protective Equipment and Precautions for Fire-fighters:** Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary, with a full face-piece operated in positive pressure mode to protect against potential harmful and/or irritating fumes. Use water to keep fire exposed containers cool.

**Specific Hazards Arising from the Chemical (Under Fire Conditions):** Combustion products may include, but are not limited to: phenols, carbon monoxide, carbon dioxide.

**Section 6. Accidental Release Measures**

**Personal Precautions, Protective Equipment and Emergency Procedures:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental Precautions:** Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas.

**Methods and Materials for Containment and Cleaning Up:** Move containers from spill area. Dike and absorb with inert absorbent material (e.g., sand) and collect in a suitable, closed and labeled container. Wash the spill area with water and detergent. 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). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse empty container.

**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

**Exposure Guidelines:** None established.

**Appropriate Engineering Controls:** Ventilation must be adequate for most operations.

**Personal Protective Equipment:**

**Respiratory Protection:** In case of inadequate ventilation wear respiratory protection. Use respirators when exposure to vapors from heated material.

**Eye / Face Protection:** Wear safety glasses with side shields or chemical splash goggles when exposure is more likely.

**Skin Protection:** Wear chemical resistant gloves (nitrile-butyl rubber, neoprene, butyl rubber or natural rubber) and full body-covering clothing.

**Additional protective measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## Section 9. Physical and Chemical Properties

<b>Physical State:</b>	Paste
<b>Colour:</b>	Gray
<b>Odour:</b>	Mild
<b>pH:</b>	No data available
<b>Melting Point/ Freezing Point:</b>	No data available
<b>Boiling point:</b>	No data available
<b>Flash Point:</b>	No data available
<b>Evaporation rate (ether=1):</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Lower and Upper Explosion limits/ Flammability Limits:</b>	No data available
<b>Vapour Pressure:</b>	No data available
<b>Relative Vapour Density:</b>	No data available
<b>Relative Density:</b>	0.9075 at 75 °F
<b>Solubilities:</b>	Insoluble in water
<b>Partition coefficient (n-octanol/water):</b>	No data available



## THERMO-FILL HT PART A

<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition Temperature:</b>	No data available
<b>Viscosity:</b>	1,910,000 cP (Rheometer RheoStress RS150)
<b>Explosive properties:</b>	No data available
<b>Oxidizing properties:</b>	No data available

## Section 10. Stability and Reactivity

**Reactivity:** Stable

**Chemical Stability:** Stable under standard normal conditions.

**Possibility of Hazardous reactions:** None under normal processing. Hazardous polymerization will not occur by itself.

**Conditions to Avoid:** To avoid thermal decomposition, do not overheat. Incompatible products.

**Incompatible Materials / Chemicals:** Keep uncured material away from strong acids, strong bases, oxidizing agents. Reacts with amines.

**Hazardous Decomposition Products:** Uncontrolled exothermic reaction of resin releases carbon monoxide, carbon dioxide, phenols.

## Section 11. Toxicological Information

**Information in the likely route of exposure:**

**Potential Acute Health Effects:**

Inhalation: No known effect.

Ingestion: May cause irritation

Skin contact: Irritating to skin. May cause sensitization.

Eye contact: Irritating to eyes.

**Symptoms related to the physical, chemical and toxicological characteristics:**

**Sensitization:** May cause sensitization of susceptible persons. May cause sensitization by skin contact.

**Mutagenic Effects:** No information available.

**Carcinogenic Effects:** No information available.

**Reproductive Toxicity:** No information available.

**Developmental Toxicity:** No information available.

**STOT- single exposure:** No information available.

**STOT- repeated exposure:** No information available.

**Target Organ Effects:** No information available.

**Aspiration Hazard:** 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:**

**Acute toxicity:**

Product	Endpoint	Species	Results	Exposure
Phenol-formaldehyde polymer, glycidyl ether	LD50 Oral	Rat	>2000 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	



Trimehylolpropane triglycidyl ether (3454-29-3)	LD50 Oral LD50 Dermal	Rat Rabbit	>2000 mg/kg >2000 mg/kg	-
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## Section 12. Ecological Information

### Ecotoxicity Effects:

#### Data for components:

**Propane 2,2 bis[p-2,3 epoxypropoxy]phenyl]-polymers:** Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Fish Acute & Prolonged toxicity: For similar material: LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96h: 2 mg/l

Aquatic Invertebrate Acute Toxicity: EC50, Daphnia (water flea), static test 48h, immobilization; 1.8 mg/l

Aquatic Plant Toxicity: ErC50, Scenedesmus capricornutum (fresh water algae), static test, Growth rate inhibition, 72h: 11mg/l

Toxicity to Microorganisms: IC50; bacteria, 18h: >42.6 mg/l

Aquatic Invertebrate Chronic Toxicity Value: Daphnia magna (water flea), semi- static test, 21d, NOEC: 0.3mg/l.

**Phenol-formaldehyde polymer, glycidyl ether:** Acute LC50 (Leuciscus idus): 5.7 mg/L  
Acute EC50 (Daphnia Magna): 3.5 mg/L

**Trimehylolpropane triglycidyl ether:** LC50 (Freshwater fish): 10 – 100 mg/L.  
EC50 (Algae): > 100 mg/L

### Persistence and degradability:

**Propane 2,2 bis[p-2,3 epoxypropoxy]phenyl]-polymers:** Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

### OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
12%	28d	OECD 302B Test	Not applicable

**Bioaccumulative potential:** Bioconcentration potential is moderate.

**Mobility in soil:** Adsorbs on soil.

**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.

**Uncleaned packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14. Transport Information



**DOT**

UN-Number: UN3082  
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.  
Hazard Class: 9  
Packing Group: III

**IATA**

UN-Number: UN3082  
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.  
Hazard Class: 9  
Packing Group: III  
Note: When packed with non-DG materials Special Provision A197 applies for inner container quantities of 5L or less.  
ERG Code: 9L

**IMDG/IMO**

UN-Number: UN3082  
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.  
Hazard Class: 9  
Packing Group: III  
Description: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Phenol, polymer with formaldehyde, glycidyl ether, Bisphenol A - Epichlorohydrin polymer), 9, III  
Marine Pollutant: Product is a marine pollutant according to the criteria set by IMDG/IMO.  
Environmental hazard: Yes  
Special Provisions: None.  
EmS No.: F-A, S-F  
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No information available.

**RID**

UN-Number: UN3082  
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.  
Hazard Class: 9  
Packing Group: III  
Description: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Phenol, polymer with formaldehyde, glycidyl ether, Bisphenol A - Epichlorohydrin polymer), 9, III  
Environmental hazard: Yes  
Special Provisions: None.  
Classification Code: M6

**ADR**

UN-Number: UN3082  
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.  
Hazard Class: 9  
Packing Group: III  
Description: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Phenol, polymer with formaldehyde, glycidyl ether, Bisphenol A - Epichlorohydrin polymer), 9, III, (E)  
Environmental hazard: Yes  
Special Provisions: None.  
Classification Code: M6



Tunnel Restriction Code: (E)

### ICAO

UN-Number: UN3082

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.

Hazard Class: 9

Packing Group: III

Description: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Phenol, polymer with formaldehyde, glycidyl ether, Bisphenol A - Epichlorohydrin polymer), 9, III

Environmental hazard: yes

Special Provisions: None

### Section 15. Regulatory Information

**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.

**California Proposition 65:** This product contains trace amounts of Epichlorohydrin CAS 106-89-8.

**TSCA Status:** All components are listed on TSCA Inventory or otherwise comply with TSCA requirements.

### Section 16. Other Information

#### Key Legend Information:

N/A – Not Applicable

ND – Not Determined

OSHA – Occupational Safety and Health Administration

NIOSH – National Institute for Occupational Safety and Health

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