

## Safety Data Sheet

### Steel Wrap Epoxy Base - Part A

#### 1. Product and Company Identification

**Product Name:** Steel Wrap Epoxy Base – Part A  
**Supplier:** NRI 3875 Fiscal Court, Ste #100 Riviera Beach, FL 33404 (561) 683-6992  
**Emergency Phone Number:** 800-535-5053  
**Product Description:** Epoxy solution  
**Product Use:** Intended to repair pipes  
**Chemical Name or Synonym:** Bisphenol-A based epoxy resin

#### 2. Hazards Identification

**Classification of the substance or mixture:**

Skin corrosion/irritation – Category 2  
 Eye damage/eye irritation – Category 2B  
 Skin sensitization - Category 1

**Label Elements:**



**Hazard Statements:**

H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction  
 H320 Causes eye irritation

**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

**Hazardous Materials Identification System (HMIS):**

Health: 2  
 Flammability: 1  
 Physical Hazard: 0

#### 3. Composition/ Information on Ingredients

Chemical Name	CAS-No	Weight %
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	25085-99-8	60 - 100
1,4-butane diglycidyl ether	2425-79-8	10 - 30
Oxirane, Mono[(C12-14-alkyloxy)methyl] Derivs	68609-97-2	0 - 10

#### 4. First Aid Measures

**First Aid Measures for Accidental:**

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**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. 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.

**Ingestion:** No adverse health effects expected from amounts ingested under normal conditions of use. Seek medical attention if a significant amount is ingested.

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

**Most important symptoms/effects, acute and delayed:**

**Acute Inhalation:** If product is heated, vapors generated can cause headache, nausea, dizziness and possible respiratory irritation if inhaled in high concentrations.

**Chronic Inhalation:** Repeated exposure to high vapor concentrations may cause irritation of pre-existing lung allergies and increase the chance of developing allergy symptoms to this product.

**Acute skin contact:** May cause allergic skin response in certain individuals. May cause moderate irritation to the skin such as redness and itching.

**Chronic Skin Contact:** May cause allergic skin response in certain individuals. May cause moderate irritation to the skin such as redness and itching.

**Eye contact:** May cause irritation.

**Ingestion:** Low acute oral toxicity.

**Symptoms of overexposure:** Possible sensitization and subsequent allergic reactions usually seen as redness and rashes.

**Medical conditions aggravated by exposure:** Pre-existing skin and respiratory disorders may be aggravated by exposure to this product. Pre-existing lung and skin allergies may increase the chance of developing allergic symptoms to this product.

**Indication of immediate medical attention and special treatment needed:** No data available

**5. Fire Fighting Measures**

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

**Unsuitable Extinguishing Media:** No information available

**Special Protective Equipment and Precautions for Fire-fighters:** Use personal protective equipment. Wear self contained breathing apparatus for firefighting if necessary. Wear complete fire fighting gear and self-contained breathing apparatus. Cool fire-exposed containers with water spray. Material is not readily combustible unless preheated.

**Specific Hazards Arising from the Chemical (Under Fire Conditions):** During a fire, smoke may contain the original materials in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include, but are not limited to: phenolics, carbon monoxide, carbon dioxide.

**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).

**Methods and Materials for Containment and Cleaning Up:** Stop leak without additional risk. Dike and absorb with inert material (*e.g.*, sand) and collect in a suitable, closed container. Warm, soapy water or non-flammable, safe solvent may be used to clean residual.

**7. Handling and Storage**

**Precautions for Safe Handling:** Ventilate work area. Avoid skin contact. Wash skin thoroughly after handling. Launder contaminated clothing before reuse or discard. Precautionary steps should be taken when curing product in large quantities. When mixed with epoxy

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curing agents this product causes an exothermic, which in large masses, can produce enough heat to damage or ignite surrounding materials and emit fumes and vapors that vary widely in composition and toxicity.

**Conditions for safe storage including any incompatibilities:** Store between 40°F (4°C) - 90°F (32°C). Store in tightly closed containers to prevent moisture absorption and loss of volatiles. Store away from heat and open flame.

#### 8. Exposure Controls / Personal Protection

**Control Parameters (Exposure Limits):** There are no exposure limits established for product as whole. Refer to OSHA's Permissible Exposure Level (PEL) or the ACGIH Guidelines for information on specific ingredients.

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

**Personal Protective Equipment:**

**Respiratory Protection:** Use respirators when exposure to vapors from heated material or mist is likely, unless determined to be below applicable limits. Use a NIOSH/MSHA approved respirator with organic vapor cartridge.

Note: Gougeon Brothers, Inc. has conducted an air sampling study using this product or similarly formulated products. The results indicate that the components sampled for (epichlorohydrin) were either so low that they were not detected at all or they were well below OSHA's permissible exposure levels.

**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.

**Additional protective measures:** 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. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions.

#### 9. Physical and Chemical Properties

<b>Physical State:</b>	Liquid
<b>Colour:</b>	Yellow
<b>Odor:</b>	Mild
<b>Melting Point Range:</b>	No data available
<b>Boiling point:</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>Flash Point:</b>	No data available
<b>Auto-ignition Temperature:</b>	No data available
<b>Decomposition Temperature:</b>	No data available
<b>pH:</b>	No data available
<b>Viscosity:</b>	1731 cP
<b>Solubility:</b>	Insoluble in water
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Vapor Pressure:</b>	< 1mmHg @ 20 °C
<b>Relative Density:</b>	No data available
<b>Bulk Density:</b>	9.58 (pounds/gallon)
<b>Relative Vapour Density (Air=1):</b>	Heavier than air
<b>Particle Characteristics:</b>	No data available
<b>Specific Gravity:</b>	1.15

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**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, but masses of more than one pound of product plus an aliphatic amine will cause irreversible polymerization with considerable heat buildup.

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

**Incompatible Materials / Chemicals:** Strong acids. Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide and phenolics may be produced during uncontrolled exothermic reactions or when otherwise heated to decomposition.

**11. Toxicological Information**

**Numerical measures of toxicity:**

For bisphenol-A based epoxy resin:

**Oral:** LD50 >5000 mg/kg (rats)

**Inhalation:** No Data.

**Dermal:** LD50 = 20,000 mg/kg (skin absorption in rabbits)

**Information on the likely route of exposure:** Primary route of entry - Skin contact

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

**Teratology:** Diglycidyl ether of bisphenol-A (DGEBA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.

**Reproductive effects:** DGEBA, in animal studies, has been shown not to interfere with reproduction.

**Mutagenicity:** DGEBA in animal mutagenicity studies were negative. In vitro mutagenicity studies were negative in some cases and positive in others.

**Carcinogenicity:** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol-A. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBA is carcinogenic. Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classified as a carcinogen.

Epichlorohydrin, an impurity in this product (<5 ppm) has been reported to produce cancer in laboratory animals and to produce mutagenic changes in bacteria and cultured human cells. It has been established by the International Agency for Research on Cancer (IARC) as a probable human carcinogen (Group 2A) based on the following conclusions: human evidence - inadequate; animal evidence - sufficient. It has been classified as an anticipated human carcinogen by the National Toxicology Program (NTP). Note: It is unlikely that normal use of this product would result in measurable exposure concentrations to this substance.

**Delayed and immediate effects and also chronic effects from short and long term exposure:**

Short term exposure: No specific data.

Long term exposure: No specific data

**12. Ecological Information**

**Ecotoxicity Effects:** Material is moderately toxic to aquatic organisms on an acute basis. LC50 between 0.1 and 1.0 mg/L in most sensitive species.

**Persistence and degradability:** Biodegradation under aerobic static laboratory conditions is below detectable limits (*i.e.*, BOD less than 2.5% of theoretical) in 20 days.

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**Bioaccumulative potential:** Bioconcentration potential is low (BCF less than 100 or Log Kow less than 3).

**Mobility in soil:** No information available

**Other adverse effects:** Prevent entry into sewers and natural waters. May cause localized fish kill.

**13. Disposal Considerations**

**Waste treatment methods:** Evaluation of this product using RCRA criteria shows that it is not a hazardous waste, either by listing or characteristics, in its purchased form. It is the responsibility of the user to determine proper disposal methods. Incinerate, recycle (fuel blending) or reclaim may be preferred methods when conducted in accordance with federal, state and local regulations.

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

**14. Transport Information**

**IMDG**

**Shipping Name:** Environmentally hazardous substance, liquid, n.o.s.  
**Technical shipping name:** Epoxy resin.  
**U.N. number:** UN 3082.  
**Hazard class:** Class 9.  
**Packing group:** III  
**Ems number:** F-A, S-F  
**Marine pollutant:** Yes

**IATA**

**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s.  
**Technical shipping name:** Epoxy resin  
**UN-Number:** UN3082  
**Hazard Class:** 9  
**Packing Group:** III  
**Marine pollutant:** Yes

**DOT**

**Proper Shipping Name:** Not regulated by DOT.  
**Technical shipping name:** Not applicable  
**UN-Number:** Not applicable  
**Hazard Class:** Not applicable  
**Packing Group:** Not applicable  
**Marine pollutant:** Not applicable

**15. Regulatory Information**

**OSHA Status:** Irritant. Possible sensitizer.

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

**Canada WHMIS Classification:** D2B

**SARA TITLE III:**

**SECTION 313 Toxic chemicals:** None (deminimus).

**State Regulatory Information:**

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The following chemicals are specifically listed or otherwise regulated by individual states. For details on your regulatory requirements you should contact the appropriate agency in your state.

Chemical Name	Concentration	State Code
Epichlorohydrin (106-89-8)	< 5 ppm	<sup>1</sup> CA, MA, PA, RI

<sup>1</sup>This substance is known to the state of California to cause cancer or reproductive harm, or both.

**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

The information contained herein is based on the data available to us and is believed to be accurate. The data is offered in good faith as typical values and not as product specification. The information in this data sheet was compiled from information supplied by the vendors of the components of this compound. NRI makes no warranty either expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. The recommended industrial hygiene and safe handling procedures are believed to be genuinely applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. NRI assumes no responsibility for injury from the use of the product described herein. The information is intended only to assist in the safe handling of this material.

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