



## Material Safety Data Sheet

**Product: Syntho Poxy™HC Part A (Resin)**

**MSDS Date:** 06/02/2010  
**Product Name:** Syntho-Poxy™HC Part A (Resin)  
**Manufacturer:** NRI

### I. Product and Company Description

NRI  
1346 S. Killian Drive  
Lake Park, FL 33403

**Emergency Phone Number:**  
800-535-5053

**For Product Information:**  
(561) 683-6992

**Product Description:**  
2 part epoxy resin

**Product Use:**  
Smooth piping transition

**Chemical Name or Synonym:**  
NA

**Molecular Formula:**  
NA

### II. Chemical Composition

Component	CAS#	%Composition
Bisphenol A dislycidyl ether	258068-38-6	60-80
Crystalline Silica	67762907	----

### III. Hazards Identification

#### A. Emergency Overview:

**Physical Appearance and Odor:**  
Gray paste with mild odor

#### B. Potential Health Effects:

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**Acute Eye:**

Eye contact may cause moderate irritation. Contact with hot product may cause thermal burns.

**Acute Skin:**

Skin contact may cause moderate irritation. Contact with similar products has been associated with skin sensitization. Sensitization may result in rashes and hives. Contact with hot product may cause thermal burns.

**Acute Inhalation:**

None expected under normal conditions of use.

**Acute ingestion:**

Not expected to be relevant route of exposure.

**Chronic effects:**

Not Determined

**Medical Conditions Aggravated by Exposure:**

Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Preexisting skin or lung allergies may increase the chance of developing increased allergy symptoms from exposure.

<b>IV. First Aid Measures</b>
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**First Aid Measures for Accidental:**

**Eye Exposure:**

In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately if irritation develops and persists. If contact with hot product occurs, immediately flush with cool water for 15 minutes. Get immediate medical attention.

**Skin Exposure:**

In case of contact with hot product, immediately flood the affected area with cold water. Wipe excess material from exposed area. Flush exposed skin with water and follow by washing with soap if available. Carefully remove clothing; if clothing is stuck to a burn area do not pull it off, but cut around it. Cover burn area with a clean material. Transport victim to nearest medical facility for treatment.

**Inhalation:**

If fumes or vapors are inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. Get medical attention immediately.

**Ingestion:**

Do not induce vomiting. Have victim rinse out mouth with water, then drink sips of water to remove taste from mouth. In general, no treatment is necessary unless large quantities of product



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are ingested. Get medical advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

### V. Fire Fighting Measures

#### Fire Hazard Data:

**Flash Point:** 277°F (136°C)

**Method Used:** -

**Flammability Limits (vol/vol%):** Lower: ND Upper: ND

#### **Extinguishing Media:**

Use water fog, foam, dry chemical or carbon dioxide to extinguish flames.

#### **Special Fire Fighting Procedures:**

Use self-contained breathing apparatus and full protective gear. Thoroughly decontaminate fire fighting equipment and apparel after the incident.

#### **Unusual Fire and Explosion Hazards:**

Product may burn at high temperatures, although it is not readily ignitable. Fumes and vapors from thermal and chemical decomposition vary widely in composition and toxicity. Do not breathe fumes and vapors.

#### **Hazardous Decomposition Materials (Under Fire Conditions):**

Carbon monoxide, aldehydes, acids and other organic substances may be formed during combustion or elevated temperature degradation. Heating resin above 300° F in the presence of air may cause slow oxidative decomposition. Above 500°F polymerization may occur.

### VI. Accidental Release Measures

#### **Cleanup and Disposal of Spill:**

In the event of a spill, immediately remove any source of ignition. Using appropriate personal protective equipment and non-sparking tools, contain spilled material. Cover the liquid with inert absorbent. Scoop all contaminated material into containers for proper disposal. Dispose of materials according to the applicable Federal, State, or local regulations.

### VII. Handling and Storage

#### **Storage & Handling:**

Store below 100 deg F for maximum stability. Avoid ignition sources. Keep unused containers closed. Store samples in original containers. Remove contaminated clothing immediately, and wash thoroughly before reuse. Wash skin thoroughly with soap and water after handling. Solvents should not be used to clean hands or skin because they increase the penetration of the material into the skin. Store out of direct sunlight.



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**VIII. Exposure Controls / Personal Protection**

**Exposure Guidelines:**

Component	Exposure limits		
	ACGIH	NIOSH	OSHA-PELs
Bisphenol A diglycidyl ether	N/A	ND	ND
Crystalline Silica	0.05 mg/m <sup>3</sup>	ND	0.1 mg/m <sup>3</sup>

**Engineering Controls:**

Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS.

**Respiratory Protection:**

None normally required if good air circulation and ventilation. In case of inadequate ventilation use NIOSH-approved respirator.

**Eye / Face Protection:**

Wear appropriate safety glasses with side shields or chemical goggles as described by OSHA's eye and face protection regulations in 29CFR 1910.133 or European Standard EN166.

**Skin Protection:**

Permeation resistant gloves (butyl rubber, nitrile, and polyvinyl alcohol). However, please note that polyvinyl alcohol degrades in water. Cover as much of the exposed area as possible, with protective clothing. If skin creams are used, keep the area covered by the cream to a minimum.

**IX. Physical and Chemical Properties**

**Physical Appearance:** Gray Paste

**Odor:** Mild, not offensive

**pH:** ND

**Specific Gravity:** 1.329

**Water Solubility:** Insoluble

**Melting Point Range:** NA

**Vapor Pressure:** ND

**Percent Volatiles by Volume:** 0.1 lb/gal

**X. Stability and Reactivity**



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**Chemical Stability:**

Stable under standard use and storage conditions.

**Conditions to Avoid:**

High temperatures

**Materials / Chemicals to be Avoided:**

Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases. Do not allow molten material to contact water or liquids as this can cause violent eruptions, splatter hot material, or ignite flammable materials. Reaction with some curing agents will release considerable heat and possible violent decomposition.

**Hazardous Decomposition Products:**

Carbon monoxide, aldehydes, acids and other organic substances may be formed during combustion or elevated temperature degradation. Heating resin above 300° F in the presence of air may cause slow oxidative decomposition. Above 500°F polymerization may occur.

**Hazardous Polymerization:**

May occur with catalyst or hardeners in uncontrolled conditions.

### **XI. Toxicological Information**

**Acute Effects:**

Oral-rat LD50: 11.4 g/kg

Oral-mouse LD50: 15.6 g/kg

Dermal-rabbit LD50: >20 ml/kg

Acute inhalation: No deaths occurred in saturated air in 8 hours. This inhalation test may not be relevant due to low volatility of the resin

**Acute Eye Irritation:**

Eye contact may cause moderate irritation. Contact with hot product may cause thermal burns.

**Acute Skin Irritation:**

Skin contact may cause moderate irritation. Contact with similar products has been associated with skin sensitization. Sensitization may result in rashes and hives. Contact with hot product may cause thermal burns.

**Acute Dermal Toxicity:**

Not Determined

**Acute Respiratory Irritation:**

None expected under normal conditions of use. Product is considered to have a low volatility and is unlikely to be an inhalation hazard.

**Acute Ingestion Toxicity:**

No hazard in normal industrial use.



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**Acute Inhalation Toxicity:**

Not Determined

**Acute Oral Toxicity:**

Not Determined

**Chronic Toxicity:**

Silica, Quartz is listed as potentially carcinogenic by the National Toxicology Program (NTP) and the International Agency for the Research on Cancer (IARC).

Recent 2-year bioassays on mice exposed by the dermal route to Diglycidyl Ether of Bisphenol-A resin (DGEBA), or two other commercial resins which are composed predominantly of DGEBA, have yielded very little evidence of weak carcinogenicity. The authors of this work concluded that the renal tumor evidence with this resin "was of not biological significance" and that the resin "is not a systemic carcinogen when applied to the dorsal skin of CF1 mice." Based upon this and all other available information, IARC concluded (1988) that DGEBA was not classified as a carcinogen (IARC Group 3) based on the following: Human evidence - Inadequate; Animal evidence – Inadequate

**Mutagenicity (Genetic Effects):**

DGEBA (a component of this product) has proved to be inactive when tested by in vivo mutagenicity assays. It has shown activity by in vitro microbial mutagenicity screening and has produced chromosomal aberrations in cultured rat liver cells. The significance of this information to man is unknown.

### XII. Ecological Information

**Ecotoxicological Information:**

Degradation:	Not Determined
Accumulation:	Not Determined
Fish-Toxicity:	Not Determined

**Chemical Fate Information:**

Keep out of surface waters, sewers and waterways entering or leading to surface waters. Notify authorities if any exposure to the general public or environment occurs or is likely to occur.

### XIII. Disposal Considerations

**Waste Disposal Method:**

Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations.

**Container Handling and Disposal:**

Dispose of container and unused contents in accordance with federal, state, and local regulations.

### XIV. Transportation Information

**US Department of Transportation Shipping Name:**



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<b>US Department of Transportation</b>	<b>Proper Shipping Name</b>	Not Regulated
	<b>Hazard Class</b>	Not Regulated
	<b>ID Number</b>	Not Regulated
	<b>Packaging Group</b>	Not Regulated
	<b>Label Statement</b>	Not Regulated

**XV. Regulatory Information**

**Federal Regulations:**

**SARA Title III Hazard Classes:**

Fire Hazard:	NO
Reactive Hazard:	NO
Release of Pressure:	NO
Acute Health Hazard:	YES
Chronic Health Hazard:	YES

**Other Federal Regulations:**

**State Regulations:**

The components identified with an X are present on the respective state's Right To Know lists:

Component	MA	PA	MI	NJ	RI	FL
Epoxy Resin						
Silica	X	X		X		

California Prop. 65: Silica is listed.

**XVI. Other Information**

**National Fire Protection Association Hazard Ratings – NFPA(R):**

Health Hazard:	2
Flammability:	1
Reactivity:	0

**Key Legend Information:**

N/A – Not Applicable  
 ND – Not Determined  
 ACGIH – American Conference of Governmental Industrial Hygienists  
 OSHA – Occupational Safety and Health Administration



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TLV – Threshold Limit Value  
PEL – Permissible Exposure Limit  
TWA – Time Weighted Average  
STEL – Short Term Exposure Limit  
NTP – National Toxicology Program  
IARC – International Agency for Research on Cancer

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