



Material Safety Data Sheet

Product: Syntho-Steel

MSDS Date: 8-3-05
Product Name: Syntho-Steel
Manufacturer: Neptune Research, Inc.

I. Product and Company Description

Neptune Research, Inc.
1683 Latham Rd.
West Palm Beach, FL 33409

Emergency Phone Number:
800-535-5053

For Product Information:
(561) 683-6992

Product Description:
Putty

Product Use:
Intended to repair pipes.

Chemical Name or Synonym:
NA

Molecular Formula:
NA

II. Chemical Composition

| Component | CAS# | %Composition |
|--------------------------------------|------------|--------------|
| Glycidyl ether of bisphenol A resins | 25086-38-6 | 10-30 |
| Tri (dimethylaminomethyl) phenol | 90-72-2 | 0.5-1.5 |

III. Hazards Identification

A. Emergency Overview:

Physical Appearance and Odor:
Grey/Black putty with sulfur/mercaptan odor



Material Safety Data Sheet

Product: Syntho-Steel

B. Potential Health Effects:

Acute Eye:

May be irritating and sensitizer from direct eye contact.

Acute Skin:

May be irritating and sensitizer from direct skin contact.

Acute Inhalation:

None expected under normal conditions of use. Fumes produced by burning may be irritating and toxic.

Acute ingestion:

Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract. Symptoms can include: sore throat, abdominal pain, nausea, vomiting and diarrhea.

Chronic effects:

Ingestion is unlikely. Intentional ingestion may cause irritation of intestinal tract.

Medical Conditions Aggravated by Exposure:

None

IV. First Aid Measures

First Aid Measures for Accidental:

Eye Exposure:

Flush with copious amount of water. Preferably lukewarm, for at least 15 minutes, holding eyelids open at all times.

Skin Exposure:

Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. Seek medical attention if irritation develops or persists after area is washed.

Inhalation:

Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention.

Ingestion:

Do not induce vomiting, consult a physician.



Material Safety Data Sheet

Product: Syntho-Steel

V. Fire Fighting Measures

Fire Hazard Data:

Flash Point: ND

Method Used: ND

Flammability Limits (vol/vol%): Lower: N/A Upper: N/A

Extinguishing Media:

Water spray, foam, CO₂, dry chemical

Special Fire Fighting Procedures:

Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters.

Unusual Fire and Explosion Hazards:

None

Hazardous Decomposition Materials (Under Fire Conditions):

Fire produces aldehydes, acids, and oxides of carbon, nitrogen and sulfur.

VI. Accidental Release Measures

Cleanup and Disposal of Spill:

Normal housekeeping practices. Pick up and contain any spilled material.

Dispose of materials according to the applicable Federal, State, or local regulations.

VII. Handling and Storage

Handling:

Wash thoroughly after handling, especially before eating, drinking, smoking and using restroom facilities. Wash contaminated goggles, face shield, and gloves. Professionally launder contaminated clothing before re-use.

Storage:

Store in cool, dry, well-ventilated area (<90° F (32° C)).



Material Safety Data Sheet

Product: Syntho-Steel

VIII. Exposure Controls / Personal Protection

Exposure Guidelines:

| Component | Exposure limits | | |
|--------------------------------------|-----------------|-------|-----------|
| | ACGIH | NIOSH | OSHA-PELs |
| Glycidyl ether of bisphenol A resins | ND | ND | ND |
| Tri (dimethylaminomethyl) phenol | 5 ppm TLV | ND | ND |

Engineering Controls:

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

Respiratory Protection:

Not required under anticipated use conditions.

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:

Appropriate impervious gloves. Because a variety of protective gloves exist, consult glove manufacturer to determine the proper type for a specific operation.

IX. Physical and Chemical Properties

| | |
|-------------------------------------|-----------------------|
| Physical Appearance: | Grey/Black putty |
| Odor: | Sulfur/mercaptan odor |
| pH: | ND |
| Specific Gravity: | 1.9 |
| Water Solubility: | Insoluble |
| Melting Point Range: | NA |
| Vapor Pressure: | ND |
| Percent Volatiles by Volume: | Non-volatile |



Material Safety Data Sheet

Product: Syntho-Steel

X. Stability and Reactivity

Chemical Stability:

Stable under standard use and storage conditions.

Conditions to Avoid:

None

Materials / Chemicals to be Avoided:

None

Hazardous Decomposition Products:

Aldehydes, acids and oxides of carbon, nitrogen, and sulfur

Hazardous Polymerization:

Will not occur.

XI. Toxicological Information

For Glycidyl ethers of bisphenol A resins:

Oral LD50 (rats): 5,000 mg/kg

Dermal LD50 (rabbits): 20,000 mg/kg

For Tri(dimethylaminomethyl)phenol:

Oral LD50 (rats): 1,630 mg/kg

Acute Eye Irritation:

Possible irritant and sensitizer.

Acute Skin Irritation:

Possible irritant and sensitizer.

Acute Dermal Toxicity:

ND

Acute Respiratory Irritation:

None

Acute Ingestion Toxicity:

May cause irritation of intestinal tract.

Acute Inhalation Toxicity:

None



Material Safety Data Sheet

Product: Syntho-Steel

Acute Oral Toxicity:

ND

Chronic Toxicity:

ND

XII. Ecological Information

Ecotoxicological Information:

Degradation: Not Determined

Accumulation: Not Determined

Fish-Toxicity: Not Determined

Chemical Fate Information:

Not Determined

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:

This container can be hazardous when empty. Follow label cautions even after the container is empty since empty containers could retain product residues. Do not re-use empty containers for food, clothing, or products for human or animal consumption, or where skin contact can occur. Dispose of container and unused contents in accordance with federal, state, and local regulations.

XIV. Transportation Information

US Department of Transportation Shipping Name:

| | | |
|---------------------------------|----------------------|---------------|
| US Department of Transportation | Proper Shipping Name | Not Regulated |
| | Hazard Class | Not Regulated |
| | ID Number | Not Regulated |
| | Packaging Group | Not Regulated |
| | Label Statement | Not Regulated |



Material Safety Data Sheet

Product: Syntho-Steel

XV. Regulatory Information

Federal Regulations:

SARA Title III Hazard Classes:

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

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 |
|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Glycidyl ether of bisphenol A resins | | | | | | |
| Tri (dimethylaminomethyl) phenol | | | | | | |

California Prop. 65: None of the chemicals in this product are listed.

XVI. Other Information

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

Health Hazard: 1
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

TLV – Threshold Limit Value

PEL – Permissible Exposure Limit

TWA – Time Weighted Average

STEL – Short Term Exposure Limit



Material Safety Data Sheet

Product: Syntho-Steel

NTP – National Toxicology Program

IARC – International Agency for Research on Cancer

The information contained herein is based on the data available to us and is believed to be correct. However Neptune Research, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.