

**Safety Data Sheet**  
**Titan-Saturant™ Curing Agent - Part B**

**I. Product and Company Identification**

Product Name: Titan-Saturant Curing Agent – Part B  
 Supplier: NRI 3875 Fiscal Court, Ste #100 Riviera Beach, FL 33404 (561) 683-6992  
 Emergency Phone Number: 800-535-5053  
 Product Description: Hardener solution  
 Product Use: Pipe coating repair and reinforcement.  
 Chemical Name or Synonym: N/A

**II. Hazards Identification**

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



GHS07

**Hazard Statements:**

H311 Toxic in contact with skin  
 H315 Causes skin irritation.  
 H320 Causes eye irritation.

**Signal Word:** Warning

**Precautionary Statement:**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P262 Do not get in eyes, on skin, or on clothing.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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

Health Hazard: 3  
 Flammability: 1  
 Reactivity: 2

**III. Composition/Information on Ingredients**

Component	CAS#	%Composition
Tetraethylenepentamine	112-57-2	4-20
Methyleneoxide, polymer with benzenamine, hydrogenated	135108-88-2	5-20
Methylenebiscyclohexanamine, 4,4'	1761-71-3	50-80
Benzyl dimethylamine	103-83-3	1-10
Gamma-aminopropyltriethoxysilane	919-30-2	0.1-2
Polyoxyethylene (20) sorbitan monolaurate	9005-64-5	0.2-1

**IV. First Aid Measures**

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**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:** Call a physician or poison control center immediately. If swallowed do not induce vomiting unless directed to do so by medical personnel. In general, no treatment is necessary unless large quantities of product have been ingested. Get medical advice.

**Eye contact:** 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 contact:** Remove contaminated clothing and shoes. Wipe excess product from skin. Wash affected skin with soap and plenty of water. Get prompt medical attention if irritation occurs. Do not reuse contaminated clothing until cleaned. If contact with hot product occurs, immediately flush with cool water for 15 minutes. Carefully remove clothing. If clothing is stuck to burn area, do not pull off, but cut around it. Cover burn area with clean material. Get immediate medical attention.

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

**Eye contact:** Eye contact may cause moderate irritation.

**Skin contact:** Skin contact may cause moderate irritation.

**Inhalation:** Product vapor or mist may possibly be harmful if inhaled.

**Ingestion:** Ingestion is unlikely. Substance may possibly be harmful if ingested.

**Overexposure Effects:** Can cause skin irritation, eye irritation and allergic skin reaction. Maybe harmful if absorbed through skin or if swallowed.

**Notes to Physician:** Allergic dermatitis or respiratory response in susceptible individuals may be delayed. It may appear after weeks or even months of frequent and prolonged contact

**V. Fire Fighting Measures**

**Extinguishing Media:** Carbon dioxide, dry chemical, or water spray may be released upon combustion. Do not use a solid stream of water. A solid stream of water can spread fire.

**Special Fire Fighting Procedures:** Water can be used to cool and protect exposed material and keep containers from rupturing.

**Special Protective Equipment for Fire-fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Unusual Fire and Explosion Hazards:** Keep fire-exposed containers cool with water. Do not use a solid stream of water. A solid stream of water can spread fire.

**Hazardous Decomposition Materials (Under Fire Conditions):** Carbon oxides and other potentially hazardous compounds may be released upon combustion.

**VI. Accidental Release Measures**

**Personal Precautions, Protective Equipment and Emergency Procedures:** Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear respirator and personal protective equipment as appropriate to prevent skin and eye contact. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

**Cleanup and Disposal of Spill:** Clean up all traces of spill as much as possible. Shovel material into clean, dry containers. On hard surfaces use absorbent material to pickup remainder and on loose surfaces shovel-up contaminated layer. Dispose of materials according to the applicable Federal, State, or Local regulations.

**VII. Handling and Storage**

**Precautions for safe handling:** Put on appropriate personal protective equipment (see Section 8). May cause irritation. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not ingest. Keep in the original container or an approved alternative made from a

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compatible material, kept tightly closed when not in use. 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.

**Conditions for safe storage including any incompatibilities:** Do not store above 95°F. Keep away from open flames. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers retain product residue and can be hazardous. Do not reuse container.

### VIII. Exposure Controls / Personal Protection

**Exposure Guidelines:** The exposure limits for all the ingredients according to ACHIG, NIOSH and OSHA-PELs have not been evaluated.

**Appropriate Engineering Controls:** Explosion-proof local exhaust ventilation at point of contaminant release.

**Personal Protective Equipment:**

**Respiratory Protection:** Wear respirator (MSHA/NIOSH or approved equivalent) suitable for concentrations and type of air contaminants encountered.

**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.

### IX. Physical and Chemical Properties

Physical Appearance:	Red liquid	
Odor:	Mild	
pH:	ND	
Flash Point:	>230°F (>110°C)	
Melting Point Range:	NA	
Boiling point:	ND	
Evaporation Rate:	<1 (Butyl Acetate = 1)	
Method Used:	Estimated	
Flammability Limits (vol/vol%):	Lower: ND	Upper: ND
Specific Gravity:	0.97	
Viscosity:	120 cP	
Water Solubility:	Negligible	
Vapor Pressure:	Not evaluated	
Vapor Density:	>1 (Air = 1)	
Relative Density:	ND	
Partition coefficient (n-octanol/water):	ND.	
Auto-ignition Temperature:	ND	
Decomposition Temperature:	ND	
VOC content:	0 g/L	

### X. Stability and Reactivity

**Reactivity:** Not determined

**Hazardous Polymerization:** Will not occur.

**Chemical Stability:** Stable under standard use and storage conditions.

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**Possibility of Hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to Avoid:** Elevated temperatures.

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

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**XI. Toxicological Information**

**Information on the likely routes of exposure:** Not Available

**Potential Acute Health Effects**

**Acute Dermal Toxicity:** Not Determined

**Acute Respiratory Irritation:** Not Determined

**Acute Ingestion Toxicity:** Not available

**Acute Inhalation Toxicity:** Not Determined

**Acute Oral Toxicity:** Not Determined

**Symptoms:**

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

**Skin:** Skin contact may cause irritation or sensitization which may result in rash or hives. Contact with hot product may cause burns.

**Chronic Health Effects:**

**General:** Repeated overexposure may cause kidney damage and may cause reproductive effects.

**Carcinogenicity:** The chemicals listed in Section 2 are not considered to be carcinogenic by NTP, IARC, or OSHA

**Numerical measures of toxicity:** No specific data

**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

**XII. Ecological Information**

**Ecotoxicity:** No determined

**Persistence and degradability:** No determined

**Bioaccumulative potential:** No determined

**Mobility in soil:** No determined

**Other adverse effects:** No determined

**XIII. Disposal Considerations**

**Waste treatment methods:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:** 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. Transport Information**

**UN Number (DOT):** Non-Bulk. Not Regulated

**UN Proper Shipping Name:** Not Regulated

**Transport Hazard Class:** Not Regulated

**Packing Group:** Not Regulated

**Environmental Hazard:** Not Regulated

**IATA:** Non-Bulk. Not Regulated

**XV. Regulatory Information**

**International Regulations:**

**Canadian Inventory Status:** This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

**Canadian WHMIS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the controlled Products Regulations, D2B

**Australian Inventory Status:** This product contains only chemicals that are currently listed on the Australian Inventory of Chemical Substances.

**European Inventory Status (EINECS):** This product contains only chemicals that are currently listed on the European Inventory of Existing Chemical Substances (EINECS).

**Japanese Inventory Status:** This product contains only chemicals that are currently listed on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

**State Regulations**

**California Proposition 65:** This product does not contain any chemicals currently on the California list of known carcinogens and reproductive toxins.

**XVI. 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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