MATERIAL SAFETY DATA SHEET

PolySpec Corporation, 6614 Gant Rd., Houston, TX 77066
Emergency Number: CHEMTREC: 800-424-9300 (Outside the USA: 202-483-7616)

POLYSPEC 701 CURING AGENT

1. **Product Name:** PolySpec 701 Curing Agent
Chemical Family: Aliphatic Amine
Date Revised: August 11, 1999

2. **Hazardous Ingredients:**

	CAS NO.	TLV	STEL	PEL	CONTENT
Triethylenetetramine (TETA)	112-24-3	None	None	None	100%

Reference Section 7, Health Hazard Data for LD 50

3. **Physical Data:**

Boiling Point:	277°C. (TETA)	Water/Oil Distribution Coefficient:	Not det.
Percent Volatile:	100%	Solubility in Water:	100%
Freezing Point:	Not determined	Specific Gravity:	0.99
Vapor Pressure:	0.01mm Hg @20°C.	pH:	Not determined
Vapor Density:	Heavier than air	Evaporation Rate:	Not determined
Odor Threshold:	Not determined	Odor:	Ammoniacal
Appearance:	Straw-clear liq.		

4. **Fire and Explosion Hazard Data:** HMIS Hazard Rating #1 (Slight Hazard)
Flash Point: 118°C., 245°F. Method Used: Pensky Martin Closed Cup
Auto-Ignition Temperature: 294°C.
Limits of Flammability: LEL: 1.0% @ 180°C. UEL: 3.6% @ 180°C.
Extinguishing Media: Carbon dioxide, foam, dry chemical and water fog
Special Fire Fighting Procedures & Unusual Hazards: Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated. Electrical grounding is not recommended.

5. **Reactivity Data:** HMIS Hazard Rating #1 (Slight Hazard)
Stability: Stable, this product must be mixed and used according to directions for safety. Not sensitive to mechanical impact.

Incompatibility: Strong oxidizing agents, acids, isocyanates and organic peroxides may result in violent explosive reaction.

Hazardous Decomposition Products: Carbon monoxide and dioxide, nitrogen oxides, aldehydes, and various nitrogen and hydrocarbons from incomplete combustion.

Hazardous Polymerization: Will not occur.

6. **Environmental and Disposal Information:**
Action to Take for Spills/Leaks: Ventilate area, eliminate all sources of ignition. Wear appropriate protective gear, contain leak or spill, salvage, clean up residue with absorbent material. Wash down area with water and diluted acetic acid.

Waste Disposal Method: Handle disposal of waste material in manner which complies with local, state, province and federal regulations. Landfill or incineration at agency approved waste-disposal facilities.

7. **Health Hazard Data:** HMIS Hazard Rating #2 (Moderate Hazard)
Primary Route of Entry: Dermal, ingestion

Effects of Overexposure:

Skin Contact: Short single exposure may cause moderate irritation to mild burn. Prolonged or repeated exposure may cause a severe burn. This material may result in an allergic type reaction or sensitization response in some individuals.

Eyes: Contact can cause severe burn. At higher temperature vapors can cause severe irritation, redness, tearing and blurred vision.

Skin Absorption: TETA may be absorbed through skin in moderately toxic amount. Dermal LD 50 (rabbit) 800 mg/kg.

Ingestion: Can result in burns of mouth, esophagus and stomach. TETA LD 50 (rat) 4340 mg/kg.

Inhalation: Low degree of volatility, at higher temperatures it is possible for vapors to be generated; vapors are very disagreeable. This material may result in irritation of throat, lungs and allergic type reaction or sensitization response in some individuals.

Chronic: Repeated over-exposure may result in liver and kidney side effects. TETA has produced cell mutation in vitro laboratory testing.

8. **First Aid:**
Inhalation: Remove victim from exposure. If difficulty with breathing, administer oxygen and seek medical assistance.

Eyes: Flush eyes with water and/or 1% boric acid, lifting upper and lower lids occasionally for 30 minutes. Seek prompt medical attention.

Skin: Wash with soap and water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Destroy contaminated leather, including shoes. Seek medical attention if irritation persists.

Ingestion: Do not induce vomiting; give large quantities of water or diluted water with acetic acid; get immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquids into lungs. Do not give anything by mouth to an unconscious person.

9. **Special Protection Information:**
Ventilation: Ventilation at normal room temperature is a means of controlling vapor properly. If material is above 140°F., a positive pressure breathing apparatus is recommended.

Personal Protective Equipment: Use chemical goggles and gloves. Selection of specific items such as boots, respirator and apron will depend on operation. Wear respirator protection whenever airborne concentrations exceed TLV ceilings or TWA; use NIOSH approved respirators for listed hazard. Confined spaces, rooms or tanks are areas where concern for TLV's is especially important. Reference OSHA Regulation CFR 29 1910.134 for recommended respiratory protection.

10. **Additional Information:**

Shipping Classification:	Triethylene Tetramine 8, UN 2259, Packaging Group II
Hazard Classification:	Corrosive
Transportation of Dangerous Goods:	Class B
Average Shelf Life:	Indefinite under optinum storage conditions in unopened containers.
Storage Recommendation:	Store at room temperature in unopened containers.
Title III Section 313 Reporting:	None
WHMIS Classification:	Class D, Div II, Sub A: Class E

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