GELEST, INC.
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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TRISILYLAMINE - SIT8715.8**
CHEMICAL NAME: TRISILYLAMINE
SYNONYMS: HEXAMETHYLTRISILAZANE
CHEMICAL FAMILY: HYDRIDOSILANE
FORMULA: H_9NSi_3

HMIS CODES HEALTH: 4 FLAMMABILITY: 4 REACTIVITY: 3

INGREDIENTS

IDENTITY	CAS NO.	%	TLV
TRISILYLAMINE	13862-16-3	>98	not established (ammonia TLV (TWA): 25ppm)

PHYSICAL DATA

Boiling Point: 53°C
Freezing Point: -106°C
Specific Gravity: 0.895
Vapor Pressure, 0°: 109mm
Vapor Density (air=1): 4.46
Solubility in water: insoluble, reacts
% volatiles: 100
Evaporation rate (butyl acetate = 1): >1
Molecular Weight: 107.33
Other: NA
Appearance & Color: Clear liquid with ammonia odor.

FIRE & EXPLOSION DATA

Flash Point, CC: -48°C (-54°F)
Autoignition Temp.: >101°C (>214°F)
Flammability Limits: not determined

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.
Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.
Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame. Liquid generates strong static charge when poured.

ENVIRONMENTAL INFORMATION

Spill response: May be hazardous to aquatic life if released to open waters. Cover spill with absorbent material. Transfer to a suitable container for disposal.

Recommended Disposal: May be incinerated. Alternately, absorb onto clay or vermiculite and dispose of absorbent material as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Vapors may cause immediate or delayed severe eye irritation. Liquid will cause severe conjunctivitis and corneal damage

Skin contact: May produce irritation or contact dermatitis which may be delayed several hours. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of vapors or particulates will irritate the respiratory tract. Overexposure may produce coughing, headache and nausea.

Toxicity -ihl rat:, LC50): 439ppm (1H)
Chronic Toxicity: There are no known chronic effects related to this compound.

SUGGESTED FIRST AID
EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.
SKIN: Flush with water, then wash with soap and water.
INHALATION: Move exposed individual to fresh air. Call a physician.
INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

REACTIVITY DATA

Stability: Stable in sealed containers in a cool place.
Conditions to avoid: Combustible; avoid contact with heat, sparks or open flame.
Incompatibility (materials to avoid): Reacts with water and moisture in air liberating ammonia. Avoid contact with peroxides, oxidizing agents, alcohols, acids, metal salts and platinum compounds. In the presence of strong alkalis will generate flammable hydrogen gas.
Hazardous decomposition products: Silicon dioxide, ammonia, hydrogen.

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.
Respiratory Protection: If exposure exceeds TLV air-supplied or combination organic vapor amine gas respirator.
Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.
Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

OTHER PRECAUTIONS

This compound is known to have an exceptional tendency to accumulate static charge. The user must take extreme care to dissipate static charge by grounding of all equipment involved in liquid transfer.

For research and industrial use only.

Storage and Handling: Store in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: TOXIC BY INHALATION LIQUID LIQUID, WATER-REACTIVE, FLAMMABLE N.O.S. (TRISILYLAMINE)
DOT HAZARD CLASS: 6.1 SUB: 4.3, 3
DOT LABELS: Flammable Liquid
DOT ID No: UN3491 PG I

TOXIC INHALATION HAZARD ZONE B AIR TRANSPORT IS FORBIDDEN.

IMDG: 6270-5 EmS no. 6.1-107 MFAG Table No. subsection: 4.2

Prepared by safety and environmental affairs MSDS ISSUE DATE SIT8715.8: 1/10/14
SUPERSEDES: none

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose, LC: Lethal Concentration; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; HMIS: Hazardous Material information System; CAS No.: Chemcial Abstract Service Registration Number