

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **HEXAMETHYLDISILAZANE - SIH6110.0**
CHEMICAL NAME: HEXAMETHYLDISILAZANE
SYNONYMS: BIS(TRIMETHYLSILYL)AMINE; HMDS; HMDZ
CHEMICAL FAMILY: ORGANOSILANE
FORMULA: C₆H₁₉NSi₂

HMIS CODES HEALTH: 3 FLAMMABILITY: 4 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
HEXAMETHYLDISILAZANE	999-97-3	>95		not established (OSHA PEL for ammonia: TWA 35ppm)

PHYSICAL DATA

Boiling Point: 126-7°C	Freezing Point: <(-76°C)
Specific Gravity: 0.774	Vapor Pressure, 20°: 22.9mm
Vapor Density (air=1): >1	Solubility in water: insoluble, reacts slowly
% volatiles: 100	Evaporation rate (butyl acetate = 1): ~1
Molecular Weight: 161.39	Viscosity: 0.9 cSt
Appearance & Color: Clear liquid with ammonia odor.	

FIRE & EXPLOSION DATA

Flash Point, COC: 14°C (57°F) Autoignition Temp.: 325°C
Flammability Limits- LEL: 0.3% UEL: 41%

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.

-1-(SIH6110.0)

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

Hexamethyldisilazane reacts with moisture in living tissue to generate ammonia.

Eye Contact: Vapors may cause immediate or delayed 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.

Oral Toxicity - rat, LD50: 850mg/kg

Dermal Toxicity, rabbit: 547mg/kg

Inhalation Toxicity - rat, LC50: 8700mg/m³/4H

Chronic Toxicity: There are no known chronic effects related to this compound. Bacterial reverse mutation test (Ames) is negative (non-mutagenic).

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.

Hazardous decomposition products: Organic vapors, ammonia.

-2-(SIH6110.0)

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV air-supplied or NIOSH approved 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

Hexamethyldisilazane 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. **Human fatality has been reported from fires ignited by static discharge of hexamethyldisilazane.**

For research and industrial use only.

Storage and Handling: Store in sealed containers.

The Gelest logo is a large, light blue triangle pointing to the right. The word "Gelest" is written in a white, serif font across the middle of the triangle.

TRANSPORTATION

DOT SHIPPING NAME: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.
(HEXAMETHYLDISILAZANE)

DOT HAZARD CLASS: 3 SUB: 6.1, 8

DOT LABELS: Flammable Liquid Toxic Corrosive

DOT ID No: UN3286 PG II

Prepared by safety and environmental affairs ISSUE DATE SIH6110.0: 10/12/11
SUPERSEDES: 6/20/05

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