

GELEST, INC.

11 East Steel Rd. Morrisville, PA 19067
Phone: (215) 547-1015

MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **BIS(MORPHOLINO)SILANE - SIB1680.0**
CHEMICAL NAME: BIS(MORPHOLINO)SILANE
SYNONYMS: BIS(MORPHOLINO)DIHYDRIDOSILANE
CHEMICAL FAMILY: ORGANOHYDRIDOSILANE
FORMULA: C₈H₁₈N₂O₂Si

HMIS CODES HEALTH: 3 FLAMMABILITY: 3 REACTIVITY: 1

INGREDIENTS

IDENTITY

CAS NO. % TLV

BIS(MORPHOLINO)SILANE

not found >95 not determined
(OSHA PEL for morpholine, TWA: 20ppm)

PHYSICAL DATA

Boiling Point: 85°C @ 1mm
Specific Gravity: 1.048
Vapor Density: NA
% volatiles: NA
Molecular Weight: 203.34
Appearance & Color: Clear to straw liquid with acrid amine odor

Freezing Point: < -40°C
Vapor Pressure, 20°: <0.5 mm
Solubility in water: reacts
Evaporation rate: NA
Other: NA

FIRE & EXPLOSION DATA

Flash Point, COC : ~30°C (~86°F) Autoignition Temp.: not determined
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 of diethylamine and organic acid vapors may develop when material is exposed to water or open flame.

-1-(SIB1680.0)

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: Hydrolyze material by mixing with water in a hood. Aqueous layer contains morpholine which should be neutralized with hydrochloric acid. Organic layer 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: Will cause immediate or delayed eye irritation.

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 of may irritate the respiratory tract. Overexposure may produce coughing, headache and nausea.

Oral Toxicity: Not determined.

Chronic Toxicity: There are no known chronic effects related to this compound.

Note: The hydrolysis products include morpholine which is toxic and flammable.

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 stored under a dry inert atmosphere.

Conditions to avoid: Combustible; avoid contact with heat, sparks or open flame.

Incompatibility (materials to avoid): Reacts with water and moisture in air liberating morpholine.

Avoid contact with alcohols, acids, oxidizers.

Hazardous decomposition products: Organic vapors, morpholine.

-2-(SIB1680.0)

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

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

For research use only.

Storage and Handling: Store in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

BIS(MORPHOLINO)SILANE

DOT HAZARD CLASS: 3 SUB: 8

DOT LABEL: FLAMMABLE LIQUID & CORROSIVE

DOT ID No: UN 2924 PG: III

Prepared by safety and environmental affairs MSDS ISSUE DATE SIB1680.0: 9/24/13
SUPERSEDES: 2/23/10

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-3-(SIB1680.0)

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