

**MATERIAL SAFETY  
DATA SHEET**

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NAME USED ON LABEL: 3-MERCAPTOPROPYLTRIETHOXYSILANE  
CHEMICAL NAME: 3-MERCAPTOPROPYLTRIETHOXYSILANE  
SYNONYMS: 3-TRIETHOXYSILYL)PROPYLMERCAPTAN  
CHEMICAL FAMILY: ORGANOSILANE  
FORMULA: C<sub>9</sub>H<sub>22</sub>O<sub>3</sub>SSi  
HMIS CODES HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 1

**INGREDIENTS**

**IDENTITY**

3-MERCAPTOPROPYLTRIETHOXYSILANE

CAS NO.	%	TLV
14814-09-6	>95	not determined

**PHYSICAL DATA**

Boiling Point: 210°C	Freezing Point: <0°C
Specific Gravity: 0.93	Vapor Pressure: <2mm
Vapor Density (air=1): >1	Solubility in water: insoluble, reacts
% volatiles: <5	Evaporation rate: NA
Molecular Weight: 238.42	Other: NA

Appearance & Color: Clear to straw liquid with unpleasant odor of sulfide.

**FIRE & EXPLOSION DATA**

Flash Point, COC: 88°C (190°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 and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

**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**

On contact with water this compound liberates ethanol which is known to have a chronic effect on the central nervous system.

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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.: Chemical Abstract Service Registration Number  
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Eye Contact: Will cause immediate or delayed severe 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- rat, LD50: >2000mg/kg  
Chronic Toxicity: There are no known chronic effects related to this compound.  
Primary irritation index: 0.19  
Note: The hydrolysis product of this product is ethanol. Overexposure to ethanol by skin absorption, inhalation or ingestion may have a narcotic effect (headache, nausea, drowsiness). Ethanol is metabolized to acetaldehyde and acetic acid which in large quantities result in metabolic acidosis, CNS depression and death due to respiratory arrest.

### **SUGGESTED FIRST AID**

**EYES:** In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention, preferably from an ophthalmologist.  
**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.  
Conditions to avoid: Combustible; avoid contact with heat, sparks or open flame.  
Incompatibility (materials to avoid): Reacts with water and moisture in air liberating ethanol.  
Hazardous decomposition products: Organic Acid Vapors.

### **SPECIAL PROTECTION INFORMATION**

Ventilation: Local exhaust is required. Mechanical is recommended.  
Respiratory Protection: If exposure exceeds TLV air-supplied or combination organic vapor acid 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 and industrial use only.  
Storage and Handling: Store in sealed containers.  
Manage all transfers with minimum fugitive emissions to manage odor issues.

### **TRANSPORTATION**

DOT SHIPPING NAME: COMBUSTIBLE LIQUID  
DOT HAZARD CLASS: NOT REGULATED  
DOT LABEL: NOT REQUIRED  
DOT ID No: NOT REQUIRED

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