

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** SILQUEST\* A-1891 SILANE

**Other means of identification**

**Synonyms:** Gamma-Mercaptopropyltriethoxysilane

**Recommended use and restriction on use**

**Recommended use:** For industrial use only.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information** : Momentive Performance Materials - Sistersville  
10851 Energy Highway  
FRIENDLY WV 26146

**Contact person** : commercial.services@momentive.com

**Telephone** : General information  
+1-800-295-2392

**Emergency telephone number**  
**Supplier** : CHEMTREC  
1-800-424-9300

## 2. Hazard(s) identification

**Hazard Classification**

**Physical Hazards**

Flammable liquids Category 4

**Label Elements**

**Hazard Symbol:** No symbol  
**Signal Word:** Warning  
**Hazard Statement:** Combustible liquid.

**Precautionary Statement**

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**Prevention:** Wear protective gloves. Wear eye protection/face protection. Keep away from open flames/hot surfaces. - No smoking.

**Response:** not applicable

**Storage:** Store in a well-ventilated place. Keep cool.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

**Substance(s) formed under the conditions of use:** Reacts with water forming ethanol.

**3. Composition/information on ingredients**

**Substance**

**Composition Comments:** The components are not hazardous or are below required disclosure limits.

**4. First-aid measures**

**Ingestion:** If conscious, drink plenty of water. Do not induce vomiting. Call a physician or poison control center immediately.

**Inhalation:** Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen. Call a physician or poison control center immediately.

**Skin Contact:** Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Wash contaminated clothing before reuse. Get medical attention.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** Treatment is symptomatic and supportive.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** No data available.

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**5. Fire-fighting measures**

**General Fire Hazards:** No data available.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** All standard extinguishing agents are suitable.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** No data available.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Avoid contact with skin and eyes. Keep out of reach of children. Attention: Not for injection into humans.

**Methods and material for containment and cleaning up:** Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

**7. Handling and storage**

**Precautions for safe handling:** Sensitivity to static discharge is expected; material has a flash point below 200 F.

**Conditions for safe storage, including any incompatibilities:** Keep container closed. Store in original container.

**8. Exposure controls/personal protection**

**Control Parameters**

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**Occupational Exposure Limits**

None of the components have assigned exposure limits.

**Appropriate Engineering Controls**

Provide eyewash station and safety shower. General (mechanical) room ventilation is expected to be satisfactory if handled at low temperatures or in covered equipment. Provide adequate ventilation if fumes or vapors are generated.

**Individual protection measures, such as personal protective equipment**

**General information:**

General (mechanical) room ventilation is expected to be satisfactory if handled at low temperatures or in covered equipment.

**Eye/face protection:**

Safety glasses with side shields

**Skin Protection**

**Hand Protection:**

Chemical resistant gloves

**Other:**

Safety shoes Wear suitable protective clothing.

**Respiratory Protection:**

If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

**Hygiene measures:**

Avoid contact with eyes. When using do not smoke. Wash thoroughly after handling.

**9. Physical and chemical properties**

**Appearance**

**Physical state:**

liquid

**Form:**

liquid

**Color:**

Colorless

**Odor:**

ester like

**Odor threshold:**

No data available.

**pH:**

No data available.

**Melting point/freezing point:**

< 0 °C

**Initial boiling point and boiling range:**

240 °C (1,013 hPa) Mixture

**Flash Point:**

88 °C (Tagliabue Closed Cup)

**Evaporation rate:**

< 1

**Flammability (solid, gas):**

No data available.

**Upper/lower limit on flammability or explosive limits**

**Flammability limit - upper (%):**

No data available.

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<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	< 1.33 hPa (20 °C)
<b>Vapor density:</b>	> 1
<b>Density:</b>	0.9900 g/cm <sup>3</sup> (25 °C) (DIN 51757)
<b>Relative density:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Reactive.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water) Log Pow:</b>	No data available.
<b>Auto-ignition temperature:</b>	200 °C
<b>Decomposition temperature:</b>	No data available.
<b>SADT:</b>	No data available.
<b>Viscosity, dynamic:</b>	2 mPa-s
<b>Viscosity, kinematic:</b>	No data available.
<b>VOC:</b>	987.1 g/l

**10. Stability and reactivity**

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	No data available.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerisation does not occur.
<b>Conditions to avoid:</b>	None known.
<b>Incompatible Materials:</b>	Reacts with water or moisture to form: Ethanol.
<b>Hazardous Decomposition Products:</b>	In case of fire, gives off (emits): Carbon oxides Oxides of silicon. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

**11. Toxicological information**
**Information on likely routes of exposure**

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.

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**Eye contact:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Ingestion:** No data available.

**Inhalation:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)****Oral**

**Product:** LC50 (Rat): 6,108 mg/kg

**Dermal**

**Product:** ATEmix: 66,666.67 mg/kg

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** OECD-Guideline 404 (Acute Dermal Irritation/Corrosion) (Rabbit): Non irritating No test data are available for the complete formulated material. The potential health hazards described were based upon a comparison with similar materials.

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Respiratory or Skin Sensitization**

**Product:** Sensitisation, skin, OECD-Guideline 406 (Skin Sensitisation) (Guinea Pig): Non sensitizing.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**SILQUEST\* A-1891 SILANE****US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity****In vitro****Product:** Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic)**In vivo****Product:** No data available.**Reproductive toxicity****Product:** No data available.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:** No data available.**Ingestion:** No data available.**Inhalation:** No data available.**Skin Contact:** No data available.**Eye contact:** No data available.**Oral**  
No data available.**Dermal**  
No data available.**Inhalation**  
No data available.

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**Repeated dose toxicity**  
No data available.

**Skin Corrosion/Irritation**  
No data available.

**Serious Eye Damage/Eye Irritation**  
No data available.

**Respiratory or Skin Sensitization**  
No data available.

**Carcinogenicity**  
No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No data available.

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No data available.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**  
No data available.

**Germ Cell Mutagenicity  
In vitro**  
No data available.

**Germ Cell Mutagenicity  
In vivo**  
No data available.

**Reproductive toxicity**  
No data available.

**Specific Target Organ Toxicity - Single Exposure**  
No data available.

**Specific Target Organ Toxicity - Single Exposure**  
No data available.

**Target Organs**  
No data available.



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**Aspiration Hazard** No data available.

**Other effects** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**  
**Product:** LC50 (Brachydanio rerio, 96 h): 439 mg/l The health hazard evaluation is based on the toxicological properties of a similar material.

**Aquatic Invertebrates**  
**Product:** EC50 (Daphnia magna, 48 h): 6.7 mg/l The health hazard evaluation is based on the toxicological properties of a similar material.

**Chronic hazards to the aquatic environment:**

**Fish**  
**Product:** No data available.

**Aquatic Invertebrates**  
**Product:** No data available.

**Toxicity to Aquatic Plants**  
**Product:** EC50 (Alga, 72 h): 931 mg/l  
NOEC (Alga, 72 h): 40 mg/l

**Persistence and Degradability**

**Biodegradation**  
**Product:** hydrolyses

**BOD/COD Ratio**  
**Product:** No data available.

**Bioaccumulative Potential**

**Bioconcentration Factor (BCF)**  
**Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)**  
**Product:** No data available.

**Mobility in Soil:** No data available.

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**Known or predicted distribution to environmental compartments**

Gamma-Mercaptopropyltriethoxysilane No data available.

**Other Adverse Effects:** No data available.

**13. Disposal considerations**

**Disposal instructions:** Disposal should be made in accordance with federal, state and local regulations. The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Contaminated Packaging:** No data available.

**14. Transport information**

**DOT**

UN Number: NA 1993  
 UN Proper Shipping Name: Combustible liquid, n.o.s.(Organoalkoxysilane)  
 Transport Hazard Class(es) Class: CBL  
 Label(s): NONE  
 Packing Group: III  
 Marine Pollutant: No

**IMDG**

UN Number: UN 3082  
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Gamma-Mercaptopropyltriethoxysilane)  
 Transport Hazard Class(es) Class: 9  
 Label(s): 9  
 EmS No.: F-A, S-F  
 Packing Group: III  
 Marine Pollutant: Yes  
 Limited quantity 5.00L  
 Excepted quantity E1

**IATA**

UN Number: UN 3082  
 Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.(Gamma-Mercaptopropyltriethoxysilane)  
 Transport Hazard Class(es) Class: 9

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Label(s):	9MI
Packing Group:	III
Cargo aircraft only Packing	964
Instructions:	
Passenger and cargo aircraft	964
Packing Instructions:	
Limited quantity:	30.00KG
Packing Instructions:	Y964
Excepted quantity	E1
Environmental Hazards:	Environmentally hazardous
Marine Pollutant:	Yes

**Special precautions for user:** This substance/preparation meets the criteria of a Marine Pollutant (see IMDG paragraph 2.9.3.3) but is not identified in the IMDG Code (Marpol list). As such, substance/preparation shall be transported as a marine pollutant in accordance with the IMDG code.

This product must be classified as a Combustible liquid, n.o.s. only when shipped in containers > 450 L (119 gallons) for both import and domestic shipment. Non-bulk containers are classified as shown in the IMDG and IATA classification for both domestic and international shipment.

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Fire Hazard

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

None present or none present in regulated quantities.

**SILQUEST\* A-1891 SILANE****SARA 311/312 Hazardous Chemical**

None present or none present in regulated quantities.

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations****US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Ethanol	Developmental toxin.
Ethanol	Carcinogenic.
Ethanol	Carcinogenic.

**US. New Jersey Worker and Community Right-to-Know Act****Chemical Identity**

Gamma-Mercaptopropyltriethoxysilane  
Chloropropyltriethoxysilane  
Related Siloxanes  
Ethanol

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

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**Inventory Status:**

Australia AICS:	y (positive listing)	Remarks: None.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	y (positive listing)	Remarks: None.
China Inventory of Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	y (positive listing)	Remarks: None.
Canada DSL Inventory List:	q (quantity restricted)	Remarks: None.
Canada NDSL Inventory:	y (positive listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: None.
Taiwan. Taiwan inventory (CSNN):	y (positive listing)	Remarks: None.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	1
<b>Flammability</b>	2
<b>Physical Hazards</b>	1
<b>PERSONAL PROTECTION</b>	

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**Issue Date:** 08/04/2016  
**Revision Date:** No data available.  
**Version #:** 1.3  
**Further Information:** No data available.

**Disclaimer:****Notice to reader**

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives. Keep out of the reach of children.

**Further Information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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