

# TRIMETHYLSILYL METHYLTRIFLUOROMETHANESULFONATE, 96%

## Safety Data Sheet SIT8595.0

Date of issue: 05/12/2016

Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form	: Substance
Physical state	: Liquid
Substance name	: TRIMETHYLSILYL METHYLTRIFLUOROMETHANESULFONATE, 96%
Product code	: SIT8595.0
Formula	: C5H11F3O3SSi
Synonyms	: TRIMETHYLSILYL METHYLTRIFLUOROMETHANESULFONATE
Chemical family	: ORGANOSILANE

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture	: Chemical intermediate For research use only
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#### 1.3. Details of the supplier of the safety data sheet

**GELEST, INC.**  
11 East Steel Road  
Morrisville, PA 19067  
**USA**

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

[info@gelest.com](mailto:info@gelest.com) - [www.gelest.com](http://www.gelest.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTRIC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flam. Liq. 3 H226  
Skin Corr. 1B H314  
Eye Dam. 1 H318

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H226 - Flammable liquid and vapor  
H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS-US)

: P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P310 - Immediately call a doctor  
P210 - Keep away from heat, open flames, sparks. - No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof electrical equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P260 - Do not breathe vapors  
P264 - Wash hands thoroughly after handling  
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting  
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P321 - Specific treatment (see first aid instructions on this label)  
P363 - Wash contaminated clothing before reuse  
P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish

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P403+P235 - Keep in a cool place  
P405 - Store locked up  
P501 - Dispose of contents/container to licensed waste disposal facility

### 2.3. Other hazards

Other hazards not contributing to the classification

: Material will generate trifluoromethanesulfonic acid on contact with moisture on skin eyes or mucous membranes. (TLV is not established; Gelest Recommendation- TWA: <3 ppm).

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance

Substance type

: Mono-constituent

Name

: TRIMETHYLSILYL METHYLTRIFLUOROMETHANESULFONATE, 96%

CAS No

: 64035-64-9

Name	Product identifier	%	GHS-US classification
Trimethylsilylmethyltrifluoromethanesulfonate	(CAS No) 64035-64-9	97 - 100	Flam. Liq. 3, H226 Skin Corr. 1B, H314 Eye Dam. 1, H318

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general

: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact

: Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact

: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion

: Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries

: Causes severe skin burns and eye damage.

Symptoms/injuries after inhalation

: May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact

: Causes (severe) skin burns.

Symptoms/injuries after eye contact

: Causes serious eye damage.

Symptoms/injuries after ingestion

: May be harmful if swallowed.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media

: Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media

: Do not use straight streams.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard

: Flammable liquid and vapor. Irritating fumes of methanesulfonic acid and organic acid vapors may develop when material is exposed to water or open flame.

### 5.3. Advice for firefighters

Firefighting instructions

: Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures

: Eliminate ignition sources. Use special care to avoid static electric charges.

#### 6.1.1. For non-emergency personnel

Protective equipment

: Wear protective equipment as described in Section 8.

Emergency procedures

: Evacuate unnecessary personnel.

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### 6.1.2. For emergency responders

#### Protective equipment

: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

#### For containment

: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

#### Methods for cleaning up

: Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Additional hazards when processed

: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

#### Precautions for safe handling

: Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Provide good ventilation in process area to prevent accumulation of vapors. Use only non-sparking tools.

#### Hygiene measures

: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures

: Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.

#### Storage conditions

: Keep container tightly closed. Keep in a cool place. Store locked up.

#### Incompatible materials

: Acids. Alcohols. Oxidizing agent. Moisture. Water.

#### Storage area

: Store in a well-ventilated place. Store away from heat.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls

: Provide local exhaust or general room ventilation.

#### Personal protective equipment

: Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Hand protection

: Neoprene or nitrile rubber gloves.

#### Eye protection

: Chemical goggles or face shield. Contact lenses should not be worn.

#### Skin and body protection

: Wear suitable protective clothing.

#### Respiratory protection

: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Physical state

: Liquid

#### Appearance

: Clear liquid.

#### Molecular mass

: 236.29 g/mol

#### Color

: Straw.

#### Odor

: Acrid.

#### Odor threshold

: No data available

#### Refractive index

: 1.376

#### pH

: No data available

#### Relative evaporation rate (butyl acetate=1)

: No data available

#### Melting point

: No data available

#### Freezing point

: < 0 °C

#### Boiling point

: 49 - 51 °C @ 9 mm Hg

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Flash point	: 48 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapor
Vapor pressure	: < 5 mm Hg @ 25°C
Relative vapor density at 20 °C	: > 1
Relative density	: 1.182
Solubility	: Reacts with water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable in sealed containers stored under a dry inert atmosphere.

### 10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating trifluoromethanesulfonic acid.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Acids. Alcohols. Oxidizing agent. Moisture. Water.

### 10.6. Hazardous decomposition products

Hydrogen fluoride. Organic acid vapors. Trifluoromethanesulfonic acid.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause irritation to the respiratory tract.
Symptoms/injuries after skin contact	: Causes (severe) skin burns.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: May be harmful if swallowed.
Reason for classification	: Expert judgment

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

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### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.  
Effect on ozone layer : No additional information available  
Effect on the global warming : No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.  
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.  
Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### 14.1. UN number

UN-No.(DOT) : 2924  
DOT NA no. : UN2924

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Flammable liquids, corrosive, n.o.s.  
(TRIMETHYLSILYL METHYLTRIFLUOROMETHANE SULFONATE)  
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  
Hazard labels (DOT) : 3 - Flammable liquid  
8 - Corrosive



DOT Symbols : G - Identifies PSN requiring a technical name  
Packing group (DOT) : III - Minor Danger  
DOT Packaging Exceptions (49 CFR 173.xxx) : 150  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203  
DOT Packaging Bulk (49 CFR 173.xxx) : 242

### 14.3. Additional information

Emergency Response Guide (ERG) Number : 132  
Other information : No supplementary information available.

### Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel  
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

### Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L  
(49 CFR 173.27)  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### TRIMETHYLSILYL METHYLTRIFLUOROMETHANE SULFONATE, 96% (64035-64-9)

TSCA Exemption/Exclusion	CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States
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### Trimethylsilylmethyltrifluoromethanesulfonate (64035-64-9)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

No additional information available

### 15.3. US State regulations

#### TRIMETHYLSIYL METHYLTRIFLUOROMETHANE SULFONATE, 96% (64035-64-9)

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

### Trimethylsilylmethyltrifluoromethanesulfonate (64035-64-9)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

## SECTION 16: Other information

### Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development.

### Full text of H-phrases::

H226	Flammable liquid and vapor
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

### HMIS III Rating

#### Health

: 4 Severe Hazard - Life-threatening, major or permanent damage may result from single or repeated overexposures

#### Flammability

: 2 Moderate Hazard

#### Physical

: 1 Slight Hazard

Prepared by safety and environmental affairs.

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SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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