

# Material Safety Data Sheet

## Tert-Butyldimethylsilyl Trifluoromethane Sulfonate, 98%

ACC# 57427

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Tert-Butyldimethylsilyl Trifluoromethane Sulfonate, 98%  
**Catalog Numbers:** AC209860000, AC209860050, AC9619953, XXAC209861.2  
**Synonyms:** Trifluoromethanesulfonic Acid Tert-Butyldimethylsilyl Ester  
**Company Identification:**  
Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410  
**For information, call:** 201-796-7100  
**Emergency Number:** 201-796-7100  
**For CHEMTREC assistance, call:** 800-424-9300  
**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
69739-34-0	tert-Butyldimethylsilyl trifluoromethanesulfonate	98%	274-102-0

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: Clear liquid. Flash Point: 36 deg C.

**Danger!** Corrosive. Causes eye and skin burns. **Flammable liquid and vapor.** May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns. Moisture sensitive.

**Target Organs:** None.

#### Potential Health Effects

**Eye:** Causes eye burns.

**Skin:** Causes skin burns.

**Ingestion:** May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns.

**Inhalation:** May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Vapors may cause dizziness or suffocation.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

**Flash Point:** 36 deg C ( 96.80 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**N/A

**Upper:** N/A

**NFPA Rating:** (estimated) Health: 3; Flammability: 3; Instability: 0

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

## Section 7 - Handling and Storage

**Handling:** Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not get on skin or in eyes. Do not ingest or inhale. Use with adequate ventilation. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
tert-Butyldimethylsilyl trifluoromethanesulfonate	none listed	6 mg/m <sup>3</sup> TWA (listed under Silica, amorphous).3000 mg/m <sup>3</sup> IDLH (listed under Silica, amorphous).	none listed

**OSHA Vacated PELs:** tert-Butyldimethylsilyl trifluoromethanesulfonate: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Clear

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** 9.1

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** 65 - 67 deg C @ 12.00mm Hg

**Freezing/Melting Point:**Not available.

**Decomposition Temperature:**Not available.

**Solubility:** decomposes

**Specific Gravity/Density:**1.1510g/cm<sup>3</sup>

**Molecular Formula:**C<sub>7</sub>H<sub>15</sub>F<sub>3</sub>O<sub>3</sub>SSi

**Molecular Weight:**264.33

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat, exposure to moist air or water.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of sulfur, carbon dioxide, hydrogen fluoride gas, silicon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 69739-34-0 unlisted.

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 69739-34-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.

**Mutagenicity:** No information available.  
**Neurotoxicity:** No information available.  
**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	DOT regulated - small quantity provisions apply (see 49CFR173.4)	CORROSIVE LIQUID FLAMMABLE NOS (BUTYLDIMETHYLSILYLTRIFLUORMETH)
<b>Hazard Class:</b>		8(3)
<b>UN Number:</b>		UN2920
<b>Packing Group:</b>		II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 69739-34-0 is not listed on the TSCA inventory. It is for research and development use only.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 69739-34-0 can be found on the following state right to know lists: California, (listed as Silica, amorphous), New Jersey, (listed as Silica, amorphous), Pennsylvania, (listed as Silica, amorphous), Minnesota, (listed as Silica, amorphous), Massachusetts, (listed as Silica, amorphous).

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

C

#### Risk Phrases:

R 10 Flammable.

R 34 Causes burns.

#### Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 25 Avoid contact with eyes.

S 33 Take precautionary measures against static discharges.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice

immediately (show the label where possible).  
S 9 Keep container in a well-ventilated place.

**WGK (Water Danger/Protection)**

CAS# 69739-34-0: No information available.

**Canada - DSL/NDSL**

None of the chemicals in this product are listed on the DSL or NDSL list.

**Canada - WHMIS**

not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 69739-34-0 (listed as Silica, amorphous) is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Additional Information**

**MSDS Creation Date:** 6/29/1998

**Revision #3 Date:** 10/03/2005

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