



A MITSUBISHI CHEMICAL GROUP company

**METHYLTRICHLOROSILANE, 98%**

## Safety Data Sheet SIM6520.0

Issue date: 11/25/2014

Revision date: 04/02/2024

Version: 1.3

**SECTION 1: Identification****1.1. Identification**

Product name	: METHYLTRICHLOROSILANE, 98%
Product code	: SIM6520.0
Product form	: Substance
Physical state	: Liquid
Formula	: CH <sub>3</sub> Cl <sub>3</sub> Si
Synonyms	: TRICHLOROMETHYLSILANE
Chemical family	: ORGANOCHLOROSILANE

**1.2. Recommended use and restrictions on use**

Recommended use	: Chemical intermediate
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**1.3. Supplier****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	: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)
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**SECTION 2: Hazard(s) identification****2.1. Classification of the substance or mixture****GHS US classification**

Flammable liquids Category 2	H225	Highly flammable liquid and vapor
Skin corrosion/irritation Category 1B	H314	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure
Full text of H statements : see section 16		

**2.2. GHS Label elements, including precautionary statements****GHS US labeling**

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H225 - Highly flammable liquid and vapor  
 H314 - Causes severe skin burns and eye damage  
 H318 - Causes serious eye damage  
 H335 - May cause respiratory irritation  
 H373 - May cause damage to organs through prolonged or repeated exposure

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Precautionary statements (GHS US)	: 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. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P264 - Wash hands thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection. 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 P310 - Immediately call a doctor. P312 - Call a poison center or doctor if you feel unwell. P314 - Get medical advice/attention if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P363 - Wash contaminated clothing before reuse. P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide, dry chemical to extinguish. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P403+P235 - Keep in a cool place P405 - Store locked up. P501 - Dispose of contents/container to licensed waste disposal facility..
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### 2.3. Hazards not otherwise classified (HNOC)

Other hazards which do not result in classification : NOTE: Material may form a siloxane polymer on the skin, eyes or in the lungs.

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

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Substance type	: Mono-constituent
Name	: METHYLTRICHLOROSILANE, 98%
CAS-No.	: 75-79-6

Name	Product identifier	%	GHS US classification
Methyltrichlorosilane	CAS-No.: 75-79-6	98 – 100	Flam. Liq. 2, H225 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

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### 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. Get medical advice/attention.
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.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes (severe) skin burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: May be harmful if swallowed.

#### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Alcohol-resistant foam. Carbon dioxide. Dry chemical. Use of high expansion foam (100:1) is recommended to cover flames.
Unsuitable extinguishing media	: Water.

#### 5.2. Specific hazards arising from the chemical

Fire hazard	: Highly flammable liquid and vapor. Irritating fumes of hydrogen chloride and organic acid vapors may develop when material is exposed to water or open flame.
Explosion hazard	: May form flammable/explosive vapor-air mixture.

#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Use only dry media to extinguish flames. Water spray or fog should only be used to knock down hydrogen chloride vapors in areas downwind from the fire. Exercise caution when fighting any chemical fire.
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 every possible source of ignition. Use special care to avoid static electric charges.
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##### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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##### 6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
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#### 6.2. Environmental precautions

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

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

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 : Handle empty containers with care because residual vapors are flammable.  
Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapor and mist. Provide good ventilation in process area to prevent accumulation of vapors. Containers must be properly grounded before beginning transfer. Use only outdoors or in a well-ventilated area. Take precautionary measures against static discharge. Use only non-sparking tools.  
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

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

Technical measures : Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.  
Storage conditions : Keep container tightly closed.  
Incompatible materials : Acids. Alcohols. Oxidizing agent.  
Storage area : Store in a well-ventilated place. Store away from heat.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Methyltrichlorosilane (75-79-6)

#### USA - AIHA - Occupational Exposure Limits

WEEL Ceiling	1 ppm
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### 8.2. Appropriate engineering controls

Appropriate engineering controls : Provide local exhaust or general room ventilation.

### 8.3. Individual protection measures/Personal protective equipment

#### 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:

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

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Appearance	: Clear liquid.
Molecular mass	: 149.48 g/mol
Color	: Straw.
Odor	: Acrid. Similar to hydrogen chloride.
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: -78 °C
Freezing point	: No data available
Boiling point	: 66.4 °C
Flash point	: -15 °C
Critical temperature	: 243 °C
Auto-ignition temperature	: 395 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapor.
Vapor pressure	: 100 mm Hg @ 13.5°C
Critical pressure	: 39 atm
Relative vapor density at 20°C	: 5.16
Relative density	: 1.275
Solubility	: Reacts with water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: 0.46 cSt
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: 7.2 – 11.9 vol % (lower; upper)

### 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 hydrogen chloride.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Acids. Alcohols. Oxidizing agent.

### 10.6. Hazardous decomposition products

Hydrogen chloride. Organic acid vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

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Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

### Methyltrichlorosilane (75-79-6)

LD50 oral rat	1620 µl/kg
LC50 Inhalation - Rat [ppm]	450 ppm/4h

Skin corrosion/irritation : Causes severe skin burns.  
Skin Irritation - rabbit: 500 µL: severe irritation effect

Serious eye damage/irritation : Causes serious eye damage.  
Eye Irritation - rabbit: 5 mg: severe irritation effect

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

### Methyltrichlorosilane (75-79-6)

NOAEL (oral, rat, 90 days)	50 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:
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Aspiration hazard : Not classified

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Causes (severe) skin burns.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : May be harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Methyltrichlorosilane (75-79-6)

LC50 - Fish [1]	> 500 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	> 500 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 120 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

#### Methyltrichlorosilane (75-79-6)

BCF - Fish [1]	(rapid hydrolysis)
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### 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 the ozone layer : No additional information available

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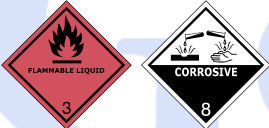


### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility..
Additional information	: Handle empty containers with care because residual vapors are flammable.
Ecological information	: Avoid release to the environment.

### SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
<b>14.1. UN number</b>			
1250	Not applicable	1250	1250
<b>14.2. Proper Shipping Name</b>			
Methyltrichlorosilane	Not applicable	METHYLTRICHLOROSILANE	Methyltrichlorosilane
<b>Transport document description</b>			
UN1250 Methyltrichlorosilane, 3 (8), II	Not applicable	UN 1250 METHYLTRICHLOROSILANE, 3 (8), II (8°C o.c.)	UN 1250 Methyltrichlorosilane, 3 (8), II
<b>14.3. Transport hazard class(es)</b>			
3 (8)	Not applicable	3 (8)	3 (8)
	Not applicable		
<b>14.4. Packing group</b>			
II	Not applicable	II	II
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

#### 14.6. Special precautions for user

**DOT**  
UN-No.(DOT) : UN1250

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DOT Special Provisions (49 CFR 172.102)	: A7 - Steel packaging must be corrosion-resistant or have protection against corrosion. B6 - Packaging shall be made of steel. B77 - Other packaging are authorized when approved by the Associate Administrator. N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material. T10 - 4 6 mm Prohibited 178.275(g)(3). TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP7 - The vapor space must be purged of air by nitrogen or other means. TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea.
DOT Packaging Exceptions (49 CFR 173.xxx)	: None
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 206
DOT Packaging Bulk (49 CFR 173.xxx)	: 243
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: Forbidden
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 5 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"
<b>TDG</b>	
Emergency Response Guide (ERG) Number	: 155
<b>IMDG</b>	
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P010
Tank instructions (IMDG)	: T10
Tank special provisions (IMDG)	: TP2, TP7, TP13
EmS-No. (Fire)	: F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	: S-C - SPILLAGE SCHEDULE Charlie - FLAMMABLE CORROSIVE LIQUIDS
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Flash point (IMDG)	: 8°C o.c.
Properties and observations (IMDG)	: Colourless liquid with a pungent odour. Flashpoint: 8°C o.c. Explosive limits: 5.1% to 20%. Immiscible with water. Readily hydrolysed by moisture evolving hydrogen chloride, an irritating and corrosive gas apparent as white fumes. In the presence of moisture, corrosive to most metals. Causes burns to skin and eyes. Irritating to mucous membranes.
<b>IATA</b>	
PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: 377
CAO max net quantity (IATA)	: 5L
ERG code (IATA)	: 3C

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### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

#### Methyltrichlorosilane (75-79-6)

RQ (Reportable quantity, section 304 of EPA's List of Lists)	500 lb
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SARA Section 302 Threshold Planning Quantity (TPQ)	500
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### 15.2. International regulations

#### CANADA

#### Methyltrichlorosilane (75-79-6)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

#### Methyltrichlorosilane (75-79-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### National regulations

#### Methyltrichlorosilane (75-79-6)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory  
Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)  
Listed on the NCI (Vietnam - National Chemical Inventory)  
Listed on Thailand Existing Chemicals Inventory (DIW)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

#### Methyltrichlorosilane (75-79-6)

U.S. - Massachusetts - Right To Know List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
U.S. - Pennsylvania - RTK (Right to Know) List

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### SECTION 16: Other information

Full text of H-phrases::

H225	Highly flammable liquid and vapor
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

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; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

Hazard Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

: 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

Physical

: 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

Prepared by safety and environmental affairs.

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Version: 1.3

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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