

**CHLORO TRIMETHYL SILANE**  
**CAS No 75-77-4****MATERIAL SAFETY DATA SHEET**  
**SDS/MSDS****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Chloro Trimethyl Silane

CAS-No. : 75-77-4

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

Identified uses : Laboratory chemicals, Industrial &amp; for professional use only.

**1.3 Details of the supplier of the safety data sheet**Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
Ansari Road Daryaganj  
New Delhi -110002  
INDIA

Telephone : +91 11 49404040

Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)**1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**Flammable liquids (Category 2), H225  
Acute toxicity, Oral (Category 3), H301  
Acute toxicity, Inhalation (Category 3), H331  
Acute toxicity, Dermal (Category 4), H312  
Skin corrosion (Category 1A), H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 Label elements****Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapour.

H301 + H331

Toxic if swallowed or if inhaled

H312

Harmful in contact with skin.

H314

Causes severe skin burns and eye damage.

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
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 POISON CENTER/doctor.
Supplemental Hazard information (EU)	
EUH014	Reacts violently with water.
EUH071	Corrosive to the respiratory tract.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.  
 Reacts violently with water., Corrosive to the respiratory tract.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	:	TMCS Trimethylchlorosilane Trimethylsilyl chloride
Formula	:	C <sub>3</sub> H <sub>9</sub> ClSi
Molecular weight	:	108.64 g/mol
CAS-No.	:	75-77-4
EC-No.	:	200-900-5

### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
<b>Chlorotrimethylsilane</b>			
CAS-No.	75-77-4	Flam. Liq. 2; Acute Tox. 3;	<= 100 %
EC-No.	200-900-5	Acute Tox. 4; Skin Corr. 1A; H225, H301, H331, H312, H314	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

- 4.3 Indication of any immediate medical attention and special treatment needed**  
No data available

#### **SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**  
Dry powder

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides, Hydrogen chloride gas, silicon oxides

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

Water hydrolyzes material liberating acidic gas which in contact with meta hydrogen gas.

#### **SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
For personal protection see section 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water.

**6.4 Reference to other sections**

For disposal see section 13.

#### **SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.  
Flash back possible over considerable distance. Container explosion may occur under fire conditions. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.  
For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Store under inert gas. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Never allow product to get in contact with water during storage.  
Store under inert gas.  
Storage class (TRGS 510): Flammable liquids

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

#### **SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**8.2 Exposure controls**

**Appropriate engineering controls**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## Personal protective equipment

### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engine protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid, clear Colour: colourless
b) Odour	pungent
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: -40 °C - lit.
f) Initial boiling point and boiling range	56-58 °C - lit.
g) Flash point	-27.99 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 46 %(V) Lower explosion limit: 1.5 %(V)
k) Vapour pressure	250 hPa at 20 °C 800 hPa at 50 °C
l) Vapour density	No data available
m) Relative density	0.859-0.861 g/cm <sup>3</sup> at 20 °C
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	400.0 °C

- q) Decomposition temperature No data available
- r) Viscosity 0.4 mm<sup>2</sup>/s at 25 °C -
- s) Explosive properties No data available
- t) Oxidizing properties No data available

## 9.2 Other safety information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Reacts violently with water.

### 10.4 Conditions to avoid

Heat, flames and sparks. Exposure to moisture

### 10.5 Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents, Ketones, Aldehydes, Water

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas, silicon oxides

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - < 214

mg/kg(Chlorotrimethylsilane) (OECD Test Guideline 401)

LC50 Inhalation - Rat - 1 h - 19

mg/l(Chlorotrimethylsilane) LD50 Dermal - Rabbit - 1,527

mg/kg(Chlorotrimethylsilane)

Remarks: Behavioral: Altered sleep time (including change in righting reflex). Diarrhoea Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

#### Skin corrosion/irritation

Skin -

Rabbit(Chlorotrimethylsilane)

Result: Severe skin irritation

#### Serious eye damage/eye irritation

Eyes - Rabbit(Chlorotrimethylsilane)

Result: Irreversible effects on the eye (Draize Test)

#### Respiratory or skin sensitisation

No data available(Chlorotrimethylsilane)

#### Germ cell mutagenicity

No data available(Chlorotrimethylsilane)

#### Carcinogenicity

This material has not been classified by IARC, OSHA, ACGIH, EPA, or NTP as that this material may induce certain types of cancers.(Chlorotrimethylsilane)

(Chlorotrimethylsilane)

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available(Chlorotrimethylsilane)

**Specific target organ toxicity - single exposure**

No data available(Chlorotrimethylsilane)

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available(Chlorotrimethylsilane)

**Additional Information**

RTECS: VV2710000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Chlorotrimethylsilane)  
Nerves. - Irregularities - Based on Human Evidence(Chlorotrimethylsilane)

**SECTION 12: Ecological information**

**12.1 Toxicity**

Toxicity to fish                      semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 271 mg/l - 96 h(Chlorotrimethylsilane)  
(OECD Test Guideline 203)  
Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates                      semi-static test EC50 - Daphnia magna (Water flea) - 124 mg/l - 48 h(Chlorotrimethylsilane)  
(OECD Test Guideline 202)

Toxicity to algae                      static test EC50 - Pseudokirchneriella subcapitata (green algae) - > 750 mg/l - 72 h(Chlorotrimethylsilane)  
(OECD Test Guideline 201)

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available(Chlorotrimethylsilane)

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

No data available

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 1298

IMDG: 1298

IATA: 1298

### 14.2 UN proper shipping name

ADR/RID: TRIMETHYLCHLOROSILANE

IMDG: TRIMETHYLCHLOROSILANE

IATA: Trimethylchlorosilane

Passenger Aircraft: Not permitted for transport

### 14.3 Transport hazard class(es)

ADR/RID: 3 (8)

IMDG: 3 (8)

IATA: 3 (8)

### 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

No data available

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

EUH014 Reacts violently with water. EUH071

Corrosive to the respiratory tract. H225

Highly flammable liquid and vapour. H301

Toxic if swallowed.

H301 + H331 Toxic if swallowed or if inhaled

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.