



TRIMETHYL CHLOROSILANE

SECTION-1. PRODUCT AND COMPANY IDENTIFICATION

Identification of Substances or Preparation

Product Trade Name : TRIMETHYL CHLOROSILANE (TMCS)
Synonyms : Trimethylchlorosilane

Company Undertaking

Identification Chemcon Speciality Chemicals Pvt. Ltd. Block No-355, Manjusar-Kunpad Road, Village-Manjusar, Taluka: Savli Distt. Vadodara-391 775 INDIA

For information call: 91 2667 264103/4/5

SECTION-2. COMPOSITION, INFORMATION ON INGREDIENTS

Substance Name	CAS #	SARA 313
CHLOROTRIMETHYLSILANE	75-77-4	No
Formula :	C ₃ H ₉ ClSi	
Synonyms :	Chlorotrimethylsilane/Silane, trimethylchloro/Silicane, chlorotrimethyl Trimethyl chlorosilane/Trimethylsilyl chloride	
RTECS Number :	VV2710000	

SECTION-3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Flammable (USA) Highly Flammable (EU). Corrosive. Reacts violently with water. Causes severe burns.

Irritating to respiratory system. Harmful by inhalation and in contact with skin. Target organ(s): Lungs. Nerves.

HMIS RATING

HEALTH	: 3*
FLAMMABILITY	: 3
REACTIVITY	: 2
SPECIAL HAZARD(S)	: Water reactive

NFPA RATING

HEALTH	: 3
FLAMMABILITY	: 3
REACTIVITY	: 2
SPECIAL HAZARD(S)	: Water reactive

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.



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SECTION-4. FIRST AID MEASURES

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Do not induce vomiting.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION-5. FIRE FIGHTING MEASURES

FLAMMABLE HAZARDS

Flammable Hazards: Yes

EXPLOSION HAZARDS

Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

CONDITIONS OF FLAMMABILITY

Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas.

FLASH POINT : - 0.4 °F - 18.0 °F

EXPLOSION LIMITS : Lower: 2 % Upper: 6.4 %

AUTOIGNITION TEMP : 400 °C

FLAMMABILITY : N/A

EXTINGUISHING MEDIA : Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

: Unsuitable: Do not use water.

FIREFIGHTING: Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions.



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SECTION-6. ACCIDENTAL RELEASE MEASURES

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

SECTION-7. HANDLING AND STORAGE

HANDLING: User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE: Suitable: Store under inert gas. Keep tightly closed. Keep away from heat, sparks, and open flame.

SPECIAL REQUIREMENTS: Store under inert gas.

SECTION-8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Safety shower and eye bath. Use nonsparking tools. Use only in a chemical fume hood.

PERSONAL PROTECTIVE EQUIPMENT: Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES: Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

SECTION-9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Physical State: Clear liquid

Color: Colorless

Molecular Weight : 108.64 gm/mol

pH : N/A



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SECTION-9. PHYSICAL AND CHEMICAL PROPERTIES

BP/BP Range	: 56.0 - 57.0 °C
MP/MP Range	: - 40.0 °C
Freezing Point	: N/A
Vapor Pressure	: N/A
Vapor Density	: 3.7 g/l
Saturated Vapor Conc	: N/A
SG/Density	: 0.856 g/cm ³
Bulk Density	: N/A
Odor Threshold	: N/A V
olatile%	: N/A
VOC Content	: N/A
Water Content	: N/A
Solvent Content	: N/A
Evaporation Rate	: N/A
Viscosity	: N/A
Surface Tension	: N/A
Partition Coefficient	: N/A
Decomposition Temp.	: N/A
Flash Point	: - 0.4 °F - 18.0 °F
Explosion Limits	: Lower: 2 % Upper: 6.4 %
Flammability	: N/A
Autoignition Temp	: 400 °C
Refractive Index	: 1.388
Optical Rotation	: N/A
Miscellaneous Data	: N/A
Solubility	: N/A

SECTION-10. STABILITY AND REACTIVITY

STABILITY

Stable: Stable.

Reactions to Avoid: Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas.

Conditions to Avoid: Do not allow water to enter container because of violent reaction.

Materials to Avoid: Strong acids, Strong bases, Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Silicon oxide, Formaldehyde, Silicon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur



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SECTION-11. TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE

Skin Contact: Causes burns.

Skin Absorption: Harmful if absorbed through skin.

Eye Contact: Causes burns.

Inhalation: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Harmful if inhaled.

Ingestion: May be harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Nerves. Lungs.

SIGNS AND SYMPTOMS OF EXPOSURE

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Inhalation

Rat : 12,900 mg/m³ : LC50

Oral

Rat : 5660 UL/KG : LD50

Remarks: Gastrointestinal: Other changes. Lungs, Thorax, or Respiration: Dyspnea. Behavioral: Somnolence (general depressed activity).

Skin

Rabbit : 1780 UL/KG : LD50

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

IRRITATION DATA

Skin

Rabbit

Remarks: Severe irritation effect

Skin

Rabbit

0.5 ml

Remarks: Moderate irritation effect

Eyes

Rabbit

0.005 ml

Remarks: Moderate irritation effect



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SECTION-11. TOXICOLOGICAL INFORMATION

CHRONIC EXPOSURE - CARCINOGEN

Result: This material has not been classified by IARC, OSHA, ACGIH, EPA, or NTP as to its carcinogenicity, however, some studies have shown that this material may induce certain types of cancers.

Species: Mouse

Route of Application: Intraperitoneal

Dose: 1000 mg/Kg

Exposure Time: 1

Result: Tumorigenic:Neoplastic by RTECS criteria. Lungs, Thorax, or Respiration:Tumors.

SECTION-12. ECOLOGICAL INFORMATION

No data available.

SECTION-13. DISPOSAL INFORMATION

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

SECTION-14. DEPARTMENT OF TRANSPORTATION (DOT)/TRANSPORT INFORMATION

DOT

Proper Shipping Name: Trimethylchlorosilane

UN#: 1298

Class: 3

Packing Group:

Hazard Label: Flammable liquid

Hazard Label: Corrosive

IATA

Proper Shipping Name: Trimethylchlorosilane

IATA UN Number: 1298

Hazard Class: 3



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SECTION-15. REGULATORY INFORMATION

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: F-C

Indication of Danger: Highly Flammable. Corrosive.

R: 11-14-20/21-35-37

Risk Statements: Highly flammable. Reacts violently with water. Harmful by inhalation and in contact with skin. Causes severe burns. Irritating to respiratory system.

S: 16-26-36/37/39-45

Safety Statements: Keep away from sources of ignition – no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Flammable (USA) Highly Flammable (EU). Corrosive.

Risk Statements: Reacts violently with water. Causes severe burns. Irritating to respiratory system. Harmful by inhalation and in contact with skin.

Safety Statements: Keep container tightly closed and in well-ventilated place. Keep away from sources of ignition – no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Statements: Target organ(s): Lungs. Nerves.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

SECTION-16. OTHER INFORMATION

The following sections have been revised since the last issue of this MSDS : Not applicable
Additional Information For additional information on the use of this product, contact CHEMCON representative.



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SECTION-16. OTHER 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. Chemcon Speciality Chemicals Pvt. Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

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