

## **MATERIAL SAFETY DATA SHEET (MSDS)**

### **TRI METHYL CHLOROSILANE (TMCS)**

**Product name : TRI METHYL CHLORO SILANE- TMCS**

**MSDS Code TMCS**

#### **1. Identification of the substance & the company**

**Chemical Name :** Trimethyl Chlorosilane – TMCS

**Synonyms :** Trichloromethyl silane, Chlorotrimethylsilane, Methyltrichlorosilane, Chloromethyltrimethylsilane, Trimethylmonochlorosilane

**Chemical Formula :** C<sub>3</sub>H<sub>9</sub>ClSi

**CAS No. : 75-77-4**

#### **2. Composition/Information on Ingredients**

##### **Hazardous components**

<b>Chemical Name</b>	<b>CAS N°</b>	<b>Symbol(s)</b>	<b>R-phrases(s)</b>
Trimethylmonochlorosilane	75-77-4	C, F	R11,R14,R35,R37

**Concentration** 98- 100%

#### **3. Hazards Identification**

**Risk advice to man and the environment :** Highly flammable

Reacts violently with water Causes burns Irritating to respiratory system

#### **4. First –aid measures**

**General advice :** Take care of self protection and call immediately for a doctor. Move out Of dangerous area. Take off all contaminated clothing Immediately.

**Inhalation :** Move person into the fresh air, keep warm, keep rest. If breathing stops, initiate artificial resuscitation immediately. If heart stops, initiate heart massage immediately.

**Skin contact :** Wash off immediately with plenty of water.

**Eye contact :** Immediately flush eye(s) with plenty of water.

**Ingestion :** Rinse mouth. Do not induce vomiting.

#### **5. Fire – fighting measures**

**Suitable extinguishing media :** dry powder alcohol – resistant foam Carbon dioxide (CO<sub>2</sub>)

**Extinguishing media :** Water, which must not be used ,Reacts violently with water

**Specific hazards during fire fighting :** In case of fire, formation of hydrochloric acid, Highly dispersed silicic acid.

**Special protective Equipment for fire fighters :** Wear self-contained breathing apparatus and protective suit.

#### **6. Accidental Release Measures**

**Personnal precautions :** Use personal protective equipment.

**Methods for cleaning up :** Take up with absorbent for chemicals or, if necessary with dry sand

## **7. Handling and storage**

### **Handling**

**Advice on safe handling:** Open container under local exhaust. Handle and open container with care. Take measures to prevent the build up of electrostatics charge.

***Explosion protection necessary***

### **Storage**

**Requirement for storage Area and containers :** Keep containers tightly closed in a cool, well ventilated place.

## **8. Procedures controls for workers exposure and characteristics regarding equipment for personal protection**

### **Personal protective equipment**

**Respiratory protection :** Respirator with type ABEK filter if product vapour is formed.

**Hand protection :** Gloves made of Viton

**Eye protection :** Tightly fitting safety goggles

**Protective measures :** Avoid inhaling vapours.

Avoid contact with skin and eyes. If not feeling well, consult a physician (When possible show MSDS)

## **9. Physical and chemical properties**

### **Appearance**

<b>Form</b>	<b>Colour</b>	<b>Odour</b>
Liquid	brown	stringing

### **Safety relevant data**

**Melting point/range :** -58, 7° C [Method : No information available]

**Boiling point /range :** 58° C [Method : No information available]

**Flash point :** -18°C [Method: DIN 51755]

**Ignition temperature :** 460°C [Method : DIN 51794]

**Lower explosion limit :** 1,2% (V) [Method : No information available]

**Upper explosion limit :** 39% (V) [Method : No information available]

**Vapour pressure :** 247 hPa at 50°C [Method : EU A4]

**Vapour pressure :** 921 hPa at 55°C [Method : No information available]

**Density :** 0,87 g/cm<sup>3</sup> at 20°C [Method DIN 51757]

**Density :** 0,865 g/cm<sup>3</sup> at 15°C [Method DIN 51757]

**Density :** 0,823 g/cm<sup>3</sup> at 50°C [Method DIN 51757]

## **10. Stability and reactivity**

**Hazardous decomposition products :** Hydrogen chloride gas

**Hazardous reactions :** Reacts violently with water, alkalines, acids, alcohols, esters, ketones, aldehydes and amino compounds.

## **11. Toxicological information**

**Acute inhalation toxicity :** LCL0 mousse

Dose : 0,5 mg/1

**Skin irritation :** Rabbit

Result : Corrosive

## **12. Ecological information**

### **Ecotoxicity effects**

**Toxicity to fish :** Species : Brachydanio rerio

Dose : 1.000 mg/l

Exposure time : 96 h

Remarks : No harmful influence

**Toxicity to bacteria :** EC50

Species : activated sludge

Dose : >10.000 mg/l

### **13. Disposal considerations**

**Product :** According to local regulations, can be taken to an appropriate incinerator Equipped with exhaust gas cleaning. Contact supplier for return shipment.

### **14. Transport information**

ADR

UN-N° 1298

Class 3

Item 21

Letter b

Description of the goods Trimethylchlorosilane

IMDG

UN-N° 1298

Class 3.1

Ems 3-04

MFAG 700

IMDG Page 3145

Packaging group II

Marine pollutant

Description of the goods Trimethylchlorosilane

IATA

UN-N° 1298

Class 3

Packaging group II

Description of the goods Trimethylchlorosilane

### **15. Other information**

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