

Trimethylchlorosilane (TMCS/M₃)

Product Name: Trimethylchlorosilane (TMCS)

Molecular Formula: (CH₃)₃SiCl

Molecular Weight: 108.7

CAS No.: 75-77-4

UN No.: 1298

Product Standard: HG/T 5393-2018

Physical and Chemical Properties:

Flash Point: -28°C (Closed cup) **Relative Density (water=1):** 0.85

Melting Point: -58°C **Relative Vapour density (air=1):** 3.8

Boiling Point: 57°C **Water Solubility:** Reaction

Auto-ignition Temperature: 395°C **PH:** Reacts with water to produce hydrogen chloride.

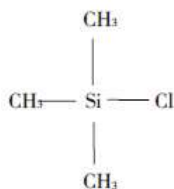
Explosion Limits Lower[%(V/V)]: 1.8

Explosion Limits Upper[%(V/V)]: 6

Vapour Pressure: 26.7 kPa (at 20°C)

Appearance: Colorless or slightly yellow transparent liquid without mechanical impurities

Structural formula:



Technological Index:

Item	Index
Content of Trimethylchlorosilane/% ≥	99.00
Content of Methyltrichlorosilane/% ≤	0.20
Content of Silicon Tetrachloride/% ≤	0.10

Properties and Uses

It is a volatile and inflammable liquid, and mainly used to manufacture and capping agent MM, silazane, protective reagent for active radical group of antibiotics and etc.

Package, Storage and Handling

Steel drum/Plastic Drum, net weight 170kg/drum or ISO TANK. Storage at ventilate and dry place and prevention from water, heat and fire; It should be kept away from oxidant, acid and alkali. Handling according to hazardous substances and prevention from exposing to sunlight and rain. Be careful when loading and unloading to avoid damages of the package.

Chemical Stability: Stable in closed containers under specified storage and handling conditions.

Conditions to Avoid: Incompatible materials, any sources of ignition or heat, exposure to moist air or water, electrical sparks.

Incompatibilities with Other Materials: Strong oxidizing agents, water, alcohols, caustics, ammonia. Attacks many metals in presence of water. (Reacts violently with water to produce hydrogen chloride. Reacts violently with alcohols, amines causing fire and explosion hazard.)

Hazardous Decomposition Products: The substance decomposes on heating producing toxic and corrosive fumes including hydrogen chloride, phosgene, and chlorine compounds. Reacts violently with water to produce hydrogen chloride.

Hazardous Polymerization: Will not occur.