

Common Name: **METHYL CHLOROSILANE**

Synonym: Chloromethylsilane

CAS No: 993-00-0

 Molecular Formula: CH<sub>3</sub>ClSi

RTK Substance No: 1240

Description: Colorless gas with a distinctive odor

## HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<b>3 - Health</b> <b>4 - Fire</b> <b>2-W - Reactivity</b> DOT#: UN 2534 ERG Guide #: 119 Hazard Class: 2.3 (Toxic gas)	<b>FLAMMABLE AND REACTIVE GAS</b> Extinguish fire only if flow can be stopped. Use dry chemical, CO <sub>2</sub> , alcohol-resistant foam or other foam extinguishing agents, as water may not be effective in fighting fires. Water may form flammable and toxic gases. <b>POISONOUS GASES ARE PRODUCED IN FIRE, including Hydrogen Chloride and Phosgene.</b> <b>CONTAINERS MAY EXPLODE IN FIRE.</b> Vapors may travel to a source of ignition and flash back.	<b>Methyl Chlorosilane</b> may react violently with WATER; MOIST AIR; OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); and ORGANIC ACIDS (such as ACETIC ACID) to form flammable and toxic <i>Hydrogen Chloride</i> and <i>Hydrogen gases</i> . <b>Methyl Chlorosilane</b> attacks many METALS in the presence of WATER and MOISTURE.

## SPILL/LEAKS

**Isolation Distance:**

Small Spill: 30 meters (100 feet)

Large Spill: 300 meters (1,000 feet)

Fire: 1,600 meters (1 mile)

Stop flow of gas. If source of leak is a cylinder and the leak cannot be stopped in place, remove the leaking cylinder to a safe place in the open air, and repair leak or allow cylinder to empty.

 Use only non-sparking tools and equipment, especially when opening and closing containers of **Methyl Chlorosilane**.

 Keep **Methyl Chlorosilane** out of confined spaces, such as sewers, because of the possibility of an explosion.

DO NOT wash into sewer.

## PHYSICAL PROPERTIES

**Odor Threshold:** Distinctive odor

**Flash Point:** 16° to 55°F (-9° to 13°C)

**Vapor Pressure:** 137 mm Hg at 68°F (20°C)

**Water Solubility:** Insoluble/Reactive

**Molecular Weight:** 80.6

## EXPOSURE LIMITS

The Protective Action Criteria values are:

PAC-1 = 1.8 ppm

PAC-2 = 22 ppm

PAC-3 = 100 ppm

## PROTECTIVE EQUIPMENT

**Gloves:** Silver Shield®/4H®, Viton and Barrier® (>4-hr breakthrough for *Organo-Silicon compounds*)

**Coveralls:** Tychem® BR, LV, Responder®, and TK (>8-hr breakthrough for *Organo-Silicon compounds*)

**Respirator:** >1.8 ppm - SCBA

## HEALTH EFFECTS

**Eyes:** Irritation and burns

**Skin:** Irritation and burns

**Inhalation:** Nose, throat and lung irritation, with coughing, wheezing and shortness of breath

## FIRST AID AND DECONTAMINATION

**Remove** the person from exposure.

**Flush** eyes with large amounts of water for at least 30 minutes. Remove contact lenses if worn. Seek medical attention immediately

**Quickly** remove contaminated clothing and wash contaminated skin with large amounts of soap and water. Seek medical attention.

**Begin** artificial respiration if breathing has stopped and CPR if necessary.

**Transfer** promptly to a medical facility.