

## SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION

Product Name: Trichlorosilane 98%

Product Code: T20375

Supplier: Pfaltz & Bauer, Inc.  
172 E. Aurora Street  
Waterbury, CT 06708 USA

Phone: 203-574-0075

FAX: 203-574-3181

Emergency Phone: INFOTRAC, US: 1-800-535-5053  
INFOTRAC, INTERNATIONAL: +1-352-323-3500

## SECTION 2: HAZARDS IDENTIFICATION

Statement of Hazard: Contact with water liberates toxic gas, Corrosive, Dangerous when wet, Flammable liquid, Irritant, Pyrophoric, Reacts violently with water, Respiratory irritant, Toxic

Acute Health Hazard: Irritant to eyes, skin, mucous membranes and respiratory system. May be harmful by ingestion and skin absorption, fatal by inhalation.

Chronic Health Hazard: Not Available

HMIS Rating: H: 4 F: 4 P: 2

NFPA Rating: H: 4 F: 4 R: 2

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

GHS Classification in accordance with Regulation (EC) No 1272/2008:

Acute toxicity, dermal (Category 4), H312  
Acute toxicity, inhalation (Category 1), H330  
Acute toxicity, oral (Category 4), H302  
Flammable liquids (Category 1), H224  
Pyrophoric liquids ; Pyrophoric solids (Category 1), H250  
Serious eye damage/eye irritation (Category 1), H318  
Skin corrosion/irritation (Category 1A), H314  
Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3), H335  
Substances and mixtures which, in contact with water, emit flammable gases (Category 1), H260

Pictogram:



Signal Word:

Danger

Hazard Statement(s):

H224 Extremely flammable liquid and vapor.  
H250 Catches fire spontaneously if exposed to air.  
H260 In contact with water releases flammable gases which may ignite spontaneously.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H330 Fatal if inhaled.  
H335 May cause respiratory irritation.

Precautionary Statement(s):

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P222 Do not allow contact with air.  
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.  
P231+P232 Handle under inert gas. Protect from moisture.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P284 Wear respiratory protection.  
P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302+P334 IF ON SKIN: Immerse in cool water/wrap in wet bandages.  
P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Statement(s):

EUH014 Reacts violently with water  
EUH029 Contact with water liberates toxic gas

### **SECTION 3: COMPOSITION/INFORMATION on INGREDIENTS**

Chemical Name:

Trichlorosilane 98%

CAS Number: 10025-78-2  
MDL Number: MFCD00011518  
EINECS Number: 233-042-5  
Beilstein Registry Number: Not Available  
Molecular Formula: HSiCl<sub>3</sub>  
Molecular Weight: 134.45  
Content: As specified in product name.

#### **SECTION 4: FIRST AID MEASURES**

Eye Contact: Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.

Skin Contact: Wash skin with soap and water. If irritation persists, seek medical attention.

Ingestion: Do not induce vomiting. Seek medical attention.

Inhalation: Move to a fresh air environment. Contact a physician if breathing becomes difficult.

#### **SECTION 5: FIRE FIGHTING MEASURES**

Flash Point (°C): -13

Explosion Limits: Lower, % by volume: Not Available  
Upper, % by volume: 70.

Auto Ignition Temperature (°C): Not Available

Extinguishing Media: Carbon dioxide, dry chemical powder or alcohol-resistant foam. Do not use water spray.

Protective Equipment: Wear self-contained respirator and fully protective impervious suit.

Specific Hazards: May emit hazardous fumes under fire conditions. Reacts violently with water.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

Personal Protection: Wear a self-contained breathing apparatus, rubber boots and gloves, and disposable coveralls. Dispose of coveralls after use. Remove from ignition sources if safe to do so. Follow emergency response plan and contact proper authorities if needed.  
Keep unprotected persons away.

Environmental Protection: Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite. Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete.

## **SECTION 7: HANDLING and STORAGE**

Handling and Storage: Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.  
Store in a tightly closed container in a dry, well-ventilated place. Store under inert gas. Store under nitrogen.

Sensitivities: Air, Moisture

Storage Temperature (°C): 2 to 8

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

Engineering Controls: Use product in a well ventilated area or under a fume hood. Use proper lab equipment while handling this product. Keep away from incompatible materials for possible risk of hazardous reaction.

Eye Protection: Wear appropriate protective eyeglass or chemical safety goggles. Make sure that there is an eyewash station in your vicinity.

Skin Protection: Wear impervious gloves and protective clothing.

Respiratory Protection: Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.

<u>Exposure Limits:</u>	<u>Country</u>	<u>Source</u>	<u>Type</u>	<u>Value</u>
	USA	ACGIH	TWA	Not Available
	USA	OSHA	STEL	Not Available
	USA	OSHA	PEL	Not Available

## **SECTION 9: PHYSICAL and CHEMICAL PROPERTIES**

Appearance: Liquid

Odor: Not Available

<u>Odor Threshold:</u>	Not Available
<u>Flash Point (°C):</u>	-13
<u>Auto Ignition Temperature (°C):</u>	Not Available
<u>UEL % by Volume:</u>	70.
<u>LEL % by Volume:</u>	Not Available
<u>Melting Point (°C):</u>	-127
<u>Boiling Point (°C):</u>	31-34
<u>Evaporation Rate:</u>	Not Available
<u>pH Value:</u>	Not Available
<u>Density (g/cm<sup>3</sup>):</u>	1.342
<u>Refractive Index (n<sup>20D</sup>):</u>	1.4020
<u>Viscosity:</u>	Not Available
<u>Solubility in Water:</u>	PRODUCES HCL GAS WHEN IN CONTACT WITH WATER
<u>Solubility in Other:</u>	Soluble in Benzene, Carbon disulfide, Chloroform, Carbon tetrachloride
<u>Vapor Pressure (mmHg):</u>	Not Available
<u>Vapor Density (Air=1):</u>	Not Available

## **SECTION 10: STABILITY and REACTIVITY**

<u>Stability:</u>	Stable under normal temperatures and pressures.
<u>Incompatibility:</u>	Strong acids, Strong bases, Strong oxidizing agents, Alcohols, Amines, Water
<u>Reactivity:</u>	Product may react with incompatible materials to release other hazardous substances.
<u>Conditions to Avoid:</u>	Heat, flame, sparks, other ignition sources.
<u>Hazardous Decomposition Products:</u>	Hydrogen chloride gas, Silicon oxides

## SECTION 11: TOXICOLOGICAL INFORMATION

<u>RTECS Reference:</u>	VV5950000
<u>Target Organs:</u>	Not Available
<u>Toxicity Data:</u>	Oral Rat LD <sub>50</sub> mg/kg: 1030.00 Inhalation Mouse LC <sub>50</sub> , mg/m <sup>3</sup> - h: 1500.00 - 2
<u>Carcinogenicity:</u>	National Toxicology Program (NTP) listed: Not Available  International Agency for Research on Cancer (IARC) listed: Not Available
<u>Potential Symptoms:</u>	Not Available

## SECTION 12: ECOLOGICAL INFORMATION

Toxicity: Not Available

## SECTION 13: DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service. Dispose in a manner consistent with federal, state and local environmental regulations.

## SECTION 14: TRANSPORT INFORMATION

<u>DOT Shipping Name:</u>	Trichlorosilane
<u>DOT UN Number:</u>	UN1295
<u>DOT Hazard Class:</u>	Class 4.3, 3, 8
<u>DOT Packing Group:</u>	PGI
<u>IMDG Shipping Name:</u>	Trichlorosilane
<u>IMDG UN Number:</u>	UN1295
<u>IMDG Hazard Class:</u>	Class 4.3, 3, 8
<u>IMDG Packing Group:</u>	PGI
<u>Marine Pollutant:</u>	No
<u>IATA Shipping Name:</u>	Trichlorosilane
<u>IATA UN Number:</u>	UN1295

IATA Hazard Class: Class 4.3, 3, 8

IATA Packing Group: PGI

## **SECTION 15: REGULATORY INFORMATION**

### United States

Toxic Substance Control Act (TSCA) listed: Yes

Superfund Amendments and Reauthorization Act (SARA 302) listed: No

Superfund Amendments and Reauthorization Act (SARA 311/312) listed: Yes

Superfund Amendments and Reauthorization Act (SARA 313) listed: No

### European Union

European Inventory of Existing Chemical Substances (EINECS): 233-042-5

GHS Classification in accordance with Regulation (EC) No 1272/2008: Yes

### Canada

Canadian Domestic Substances List (DSL) listed: Yes

Canadian Non-Domestic Substances List (NDSL) listed: No

## **SECTION 16: OTHER INFORMATION**

Date Prepared: 2/22/2023

The information above is presented in good faith. It is believed to be accurate and represents the best information currently available to us. However, we make no warranty with respect to such information and we assume no liability resulting from its use. The user should consider this information as a supplement to other information that may be available and make independent judgement to ensure proper use to protect the health and safety of employees and the environment. Pfaltz and Bauer shall not be held liable for any damage resulting from handling or from contact with the above product.