SPECTRUM®

GARDENA, CA
NEW BRUNSWICK, NJ

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment
	Health Hazard 3 Fire Hazard 3 Reactivity 2	 See Section 15.

Section 1. Chemical Product and Company Identification

Common Name/ Trade Name	**Vinyltrichlorosilane**
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248
Commercial Name(s)	Not available.
Synonym	Silane, trichlorovinyl-; Trichloro(vinyl)silane; Vinylsilicon trichloride; VTC; Trichlorovinylsilane; (Trichlorosilyl)ethylene
Chemical Name	Silane, trichloroethenyl-
Chemical Family	Not available.
Chemical Formula	C2-H3-Cl3-Si
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248

Catalog Number(s).	V2016
CAS#	75-94-5
RTECS	VV6125000
TSCA	TSCA 8(b) inventory: Vinyltrichlorosilane
CI#	Not available.

IN CASE OF EMERGENCY
CHEMTREC (24hr) 800-424-9300

CALL (310) 516-8000

Section 2.Composition and Information on Ingredients

		Exposure Limits			
Name	**CAS #**	**TWA (mg/m^3)**	**STEL (mg/m^3)**	**CEIL (mg/m^3)**	**% by Weight**
1) Vinyltrichlorosilane	75-94-5				100

Toxicological Data on Ingredients

Vinyltrichlorosilane:
ORAL (LD50): Acute: 1280 mg/kg [Rat].

Section 3. Hazards Identification

Potential Acute Health Effects

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive), of inhalation. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects

CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

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Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Flammable.
Auto-Ignition Temperature	263℃ (505.4℉) - 270 C.
Flash Points	CLOSED CUP: 10℃ (50℉). OPEN CUP: 21℃ (69.8℉).
Flammable Limits	LOWER: 3%
Products of Combustion	These products are carbon oxides (CO, CO2), halogenated compounds.
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames and sparks, of heat. Slightly flammable to flammable in presence of metals.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks, of heat, of moisture.
Fire Fighting Media and Instructions	Flammable liquid. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.
Special Remarks on Fire Hazards	Vapor may travel considerable distance to source of ignition and flash back. Contact with metals may evolve flammable hydrogen gas.
Special Remarks on Explosion Hazards	Containers may explode when heated or if contaminated with water.

Section 6. Accidental Release Measures

Small Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill	Flammable liquid. Corrosive liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

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Section 7. Handling and Storage

Precautions	Keep under inert atmosphere. Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from direct sunlight or strong incandescent light. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. Avoid shock and friction. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, metals, acids, alkalis, moisture.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Keep from any possible contact with water. Do not allow water to get into container because of violent reaction. Moisture sensitive.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	CEIL: 1 from AIHA [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.
Molecular Weight	161.49 g/mole
pH (1% soln/water)	Not available.

Odor	Sharp odor. Hydrochloric odor
Taste	Not available.
Color	Colorless to light yellow

Boiling Point	88℃ (190.4℉) - 92 C.
Melting Point	-95℃ (-139℉)
Critical Temperature	Not available.
Specific Gravity	1.2426 - 1.27 (Water = 1)
Vapor Pressure	8.8kPa (@ 25℃)
Vapor Density	5.61 (Air = 1)
Volatility	Not available.
Odor Threshold	Not available.
Water/Oil Dist. Coeff.	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	Not available.
Solubility	Soluble in most organic solvents. Very soluble in chloroform. Reacts violently with water with liberation of Hydrochloric acid. Reacts with alcohol

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Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Heat, ignition sources (flames, sparks, static), incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, metals, acids, alkalis, moisture. The product reacts violently with water to emit flammable but non toxic gases.
Corrosivity	Not available.
Special Remarks on Reactivity	Reacts violently with water to produce toxic and corrosive fumes. Also incompatible with alcohols, amines, peroxides
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation.
Toxicity to Animals	Acute oral toxicity (LD50): 1280 mg/kg [Rat].
Chronic Effects on Humans	Not available.
Other Toxic Effects on Humans	Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive), of inhalation (lung corrosive).
Special Remarks on Toxicity to Animals	Lethal Dose/Conc 50% Kill: LD50[Rabbit] - Route: Skin; Dose: 680 ul/kg
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Corrosive! Causes severe irritation and burns. Harmful if absorbed through skin. Eyes: Corrosive!. Causes severe irritation burns. Inhalation: Inhalation of mist or vapor causes respiratory tract and mucous membrane irritation. May cause chemical burns to the upper respiratory tract (nose, throat). Inhalation may result in spasm, inflammation, and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.] Ingestion: Corrosive! Harmful if swallowed. Causes gastrointestinal/digestive tract burns. May cause perforation of the digestive tract. May cause severe and permanent damage to the digestive tract.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are as toxic as the product itself.
Special Remarks on the Products of Biodegradation	Not available.

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Section 13. Disposal Considerations

Waste Disposal Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification CLASS 3: Flammable liquid.
Class 8: Corrosive material

Identification UNNA: 1305 : Vinyltrichlorosilane, stabilized PG: I

Special Provisions for Transport Not available.

DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations Connecticut hazardous material survey.: Vinyltrichlorosilane
Pennsylvania RTK: Vinyltrichlorosilane
Massachusetts RTK: Vinyltrichlorosilane
Massachusetts spill list: Vinyltrichlorosilane
New Jersey: Vinyltrichlorosilane
New Jersey toxic catastrophe prevention act: Vinyltrichlorosilane
TSCA 8(b) inventory: Vinyltrichlorosilane

California Proposition 65 Warnings California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 200-917-8).
Canada: Listed on Canadian Non-Domestic Substance List (NDSL).
China: Listed on National Inventory.
Japan: Listed on National Inventory (ENCS).
Korea: Not listed on National Inventory (KECI).
Philippines: Listed on National Inventory (PICCS).
Australia: Lsted on AICS.

Other Classifications

WHMIS (Canada) CLASS B-2: Flammable liquid with a flash point lower than 37.8℃ (100℉).
CLASS E: Corrosive liquid.
CLASS F: Dangerously reactive material.

DSCL (EEC)

R11- Highly flammable.
R14- Reacts violently with water.
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R34- Causes burns.

S8- Keep container dry.
S16- Keep away from sources of ignition - No smoking.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S29- Do not empty into drains.
S30- Never add water to this product.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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HMIS (U.S.A.)

Health Hazard	3
Fire Hazard	3
Reactivity	2
Personal Protection	

National Fire Protection Association (U.S.A.)

Health

Flammability

Reactivity

Specific hazard

WHMIS (Canada) (Pictograms)

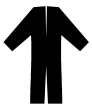
DSCL (Europe) (Pictograms)

TDG (Canada) (Pictograms)

ADR (Europe) (Pictograms)

Protective Equipment

Gloves.



Full suit.

Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Face shield.

Section 16. Other Information

MSDS Code	**5140T**
References	Not available.
Other Special Considerations	Major Uses: Monomer for copolymers in water repellants, electrifal insulating resins, and high temperature resins for paints; Intermediate for silicones; coupling agent in adhesives and bonds

Validated by Sonia Owen on 6/1/2010.

Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.