

# CYCLOHEXENYLTRICHLOROSILANE

CHT

CAUTIONARY RESPONSE INFORMATION			
Common Synonyms Sentry	Liquid	Colorless	Sharp, irritating odor  Reacts with water. Poisonous gas is produced on contact with water.
Evacuate. Keep people away. Avoid contact with liquid and vapor. Call fire department. Notify local health and pollution control agencies. Protect water intakes.			
Fire	Combustible. POISONOUS GASES MAY BE PRODUCED IN FIRE. Wear goggles and self-contained breathing apparatus. Extinguish with dry chemicals or carbon dioxide. DO NOT USE WATER OR FOAM ON FIRE.		
Exposure  CALL FOR MEDICAL AID. GAS PRODUCED IN REACTION WITH WATER. POISONOUS IF INHALED. Irritating to eyes, nose and throat. Move victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.  LIQUID Will burn skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk. DO NOT INDUCE VOMITING.			
Water Pollution	Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

1. CORRECTIVE RESPONSE ACTIONS Dilute and disperse Stop discharge Chemical and Physical Treatment: Neutralize Do not add water to undissolved material Do not burn	2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: Not listed. 2.2 Formula: C <sub>6</sub> H <sub>5</sub> SiCl <sub>3</sub> 2.3 IMO/UN Designation: 8/1762 2.4 DOT ID No.: 1762 2.5 CAS Registry No.: Currently not available 2.6 NAERG Guide No.: 156 2.7 Standard Industrial Trade Classification: 51550	3. HEALTH HAZARDS 3.1 Personal Protective Equipment: Acid-vapor type air respirator; rubber gloves; chemical worker's goggles; other protective equipment as necessary to protect skin and eyes. 3.2 Symptoms Following Exposure: Inhalation causes irritation of mucous membrane. Contact with eyes or skin causes severe burns. Ingestion causes severe burns of mouth and stomach. 3.3 Treatment of Exposure: Get medical attention immediately following all exposures to this compound. INHALATION: remove from exposure; support respiration. EYES: flush with water for 15 min. SKIN: flush with water. INGESTION: give large amounts of water. 3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 2; oral LD <sub>50</sub> = 2,830 mg/kg (rat) 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritancy Characteristics: Currently not available 3.11 Liquid or Solid Characteristics: Currently not available 3.12 Odor Threshold: Currently not available 3.13 IDLH Value: Not listed. 3.14 OSHA PEL-TWA: Not listed. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed	4. FIRE HAZARDS 4.1 Flash Point: > 150°F O.C. 4.2 Flammable Limits in Air: Not pertinent 4.3 Fire Extinguishing Agents: Dry chemical, carbon dioxide 4.4 Fire Extinguishing Agents Not to Be Used: Water or foam 4.5 Special Hazards of Combustion Products: Irritating, toxic hydrogen chloride and phosgene may be generated in a fire. 4.6 Behavior in Fire: Difficult to extinguish. Re-ignition may occur. Water applied to adjacent fires will produce hydrogen chloride upon contact with this material. 4.7 Auto Ignition Temperature: Currently not available 4.8 Electrical Hazards: Currently not available 4.9 Burning Rate: Currently not available 4.10 Adiabatic Flame Temperature: Currently not available 4.11 Stoichiometric Air to Fuel Ratio: 40.5 (calc.) 4.12 Flame Temperature: Currently not available 4.13 Combustion Molar Ratio (Reactant to Product): 13.0 (calc.) 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed	5. CHEMICAL REACTIVITY 5.1 Reactivity with Water: Reacts to generate hydrogen chloride (hydrochloric acid). 5.2 Reactivity with Common Materials: Corrodes metals by reacting with surface moisture and generating hydrogen chloride. 5.3 Stability During Transport: Stable 5.4 Neutralizing Agents for Acids and Caustics: Flush with water, rinse with sodium bicarbonate or lime solution. 5.5 Polymerization: Not pertinent 5.6 Inhibitor of Polymerization: Not pertinent	6. WATER POLLUTION 6.1 Aquatic Toxicity: Currently not available 6.2 Waterfowl Toxicity: Currently not available 6.3 Biological Oxygen Demand (BOD): Currently not available 6.4 Food Chain Concentration Potential: None 6.5 GESAMP Hazard Profile: Not listed	7. SHIPPING INFORMATION 7.1 Grades of Purity: Commercial 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement 7.4 Venting: Pressure-vacuum 7.5 IMO Pollution Category: Currently not available 7.6 Ship Type: Currently not available 7.7 Barge Hull Type: Currently not available	8. HAZARD CLASSIFICATIONS 8.1 49 CFR Category: Corrosive material 8.2 49 CFR Class: 8 8.3 49 CFR Package Group: II 8.4 Marine Pollutant: No 8.5 NFPA Hazard Classification: Not listed 8.6 EPA Reportable Quantity: Not listed. 8.7 EPA Pollution Category: Not listed. 8.8 RCRA Waste Number: Not listed 8.9 EPA FWPCA List: Not listed	9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Physical State at 15°C and 1 atm: Liquid 9.2 Molecular Weight: 215.6 9.3 Boiling Point at 1 atm: > 300°F = > 149°C = > 422°K 9.4 Freezing Point: (est.) < 77°F = < 25°C = < 248°K 9.5 Critical Temperature: Not pertinent 9.6 Critical Pressure: Not pertinent 9.7 Specific Gravity: 1.23 at 20°C (liquid) 9.8 Liquid Surface Tension: (est.) 30 dynes/cm = 0.030 N/m at 20°C 9.9 Liquid Water Interfacial Tension: Not pertinent 9.10 Vapor (Gas) Specific Gravity: Not pertinent 9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent 9.12 Latent Heat of Vaporization: Not pertinent 9.13 Heat of Combustion: (est.) -78 Btu/lb = -43 cal/g = -1.8 X 10 <sup>5</sup> J/kg 9.14 Heat of Decomposition: Not pertinent 9.15 Heat of Solution: Currently not available 9.16 Heat of Polymerization: Not pertinent 9.17 Heat of Fusion: Currently not available 9.18 Limiting Value: Currently not available 9.19 Reid Vapor Pressure: Currently not available
NOTES								

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
60	77.059	60	0.350	60	0.728	60	3.575
61	77.020	61	0.350	62	0.728	61	3.525
62	76.990	62	0.350	64	0.728	62	3.476
63	76.950	63	0.350	66	0.728	63	3.428
64	76.919	64	0.350	68	0.728	64	3.381
65	76.879	65	0.350	70	0.728	65	3.335
66	76.849	66	0.350	72	0.728	66	3.290
67	76.809	67	0.350	74	0.728	67	3.245
68	76.780	68	0.350	76	0.728	68	3.201
69	76.740	69	0.350	78	0.728	69	3.158
70	76.709	70	0.350	80	0.728	70	3.116
71	76.679	71	0.350	82	0.728	71	3.074
72	76.639	72	0.350	84	0.728	72	3.033
73	76.610	73	0.350	86	0.728	73	2.993
74	76.570	74	0.350	88	0.728	74	2.954
75	76.540	75	0.350			75	2.915
76	76.500	76	0.350			76	2.877
77	76.469	77	0.350			77	2.839
78	76.429						
79	76.400						
80	76.360						
81	76.330						
82	76.290						
83	76.259						
84	76.219						
85	76.190						

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	R E A C T S		N O T  P E R T I N E T		N O T  P E R T I N E T		N O T  P E R T I N E T