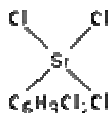


Dichlorophenyltrichlorosilane - CAS # 27137-85-5



Chemical Name: Dichlorophenyltrichlorosilane

Chemical Formula: C₆H₄Cl₂SiCl₃

CAS Number: 27137-85-5

Molecular Weight: 280.4370

DICHLOROPHENYLTRICHLOROSILANE

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Chemical Identifiers

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UN/NA Number	CAS Number	CHRIS Code	DOT Hazard Label
1766	27137-85-5	none	CORROSIVE

NFPA 704: data unavailable

General Description

Dichlorophenyltrichlorosilane is a straw colored liquid with a pungent odor. Material will burn though it may require some effort to ignite. It is decomposed by moisture or water to hydrochloric acid with evolution of heat. It is corrosive to metals and tissue. It is used as an intermediate for silicones.

Hazards

[What is this information?](#) ►

Reactivity Alerts

Water-Reactive

Air & Water Reactions

Based on the properties of similar materials, there is the possibility that the reaction of this compound with water may be vigorous or violent. Products of the reaction include hydrogen chloride. The reaction generates heat and this heat may be sufficient to ignite the product.

Dichlorophenyltrichlorosilane reacts vigorously with water to generate gaseous HCl. In experiments at Argonne National Laboratory, in which it was mixed with water and stirred at room conditions, about 44 percent of the theoretical yield of HCl evolved as a gas in the first 1 minutes [Brown, D. F., et al. (2000) Development of the Table of Initial Isolation and Protective Action Distances for the 2000 Emergency Response Guidebook, ANL-DIS-00-1, Argonne National Laboratory, Argonne IL].

Fire Hazard

This material may burn but does not ignite readily. Flammable/poisonous gases may accumulate in tanks and hopper cars. This material may ignite combustibles (wood, paper, oil, etc.). The compound is a slight fire hazard when exposed to heat or flame. It is decomposed by moisture or water to hydrochloric acid with the evolution of heat. (EPA, 1998)

Health Hazard

Contact causes burns to skin and eyes. If inhaled, it may be harmful. Fire may produce irritating or poisonous gases. The compound is highly toxic by inhalation and is a strong irritant to the skin and eyes. (EPA, 1998)

Reactivity Profile

Chlorosilanes, such as DICHLOROPHENYLTRICHLOROSILANE, are compounds in which silicon is bonded to from one to four chlorine atoms with other bonds to hydrogen and/or alkyl groups. Chlorosilanes react with water, moist air, or steam to produce heat and toxic, corrosive fumes of hydrogen chloride. They may also produce flammable gaseous H₂. They can serve as chlorination agents. Chlorosilanes react vigorously with both organic and inorganic acids and with bases to generate toxic or flammable gases.

Belongs to the Following Reactive Group(s)

[Chlorosilanes](#)

Response Recommendations

[What is this information?](#) ►

Firefighting

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Wear self-contained (positive pressure if available) breathing apparatus and full protective clothing. Move container from fire area if you can do so without risk. Spray cooling water on

containers that are exposed to flames until well after fire is out. Do not use water on material itself. Use spray to absorb vapors.

This material may react violently with water. Extinguish with dry chemical, carbon dioxide, water spray, fog, or foam. Also dry sand may be used. (EPA, 1998)

Non-Fire Response

Keep sparks, flames, and other sources of ignition away. Keep material out of water sources and sewers. Build dikes to contain flow as necessary. Use water spray to knock-down vapors. Do not use water on material itself. Neutralize spilled material with crushed limestone, soda ash, or lime. (AAR, 2003)

Protective Clothing

For emergency situations, wear a positive pressure, pressure-demand, full facepiece self-contained breathing apparatus (SCBA) or pressure-demand supplied air respirator with escape SCBA and a fully-encapsulating, chemical resistant suit. (EPA, 1998)

First Aid

Inhalation and skin are routes of entry. Move victim to fresh air; call emergency medical care. Remove and isolate contaminated clothing and shoes at the site. In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. Keep victim quiet and maintain normal body temperature. (EPA, 1998)

Physical Properties

[What is this information?](#) ►

Molecular Formula: C₆H₃Cl₅Si

Flash Point: 286.0 ° F (EPA, 1998)

Lower Explosive Limit: Material will burn but requires some effort to ignite. (EPA, 1998)

Upper Explosive Limit: Material will burn but requires some effort to ignite. (EPA, 1998)

Autoignition Temperature: data unavailable

Melting Point: data unavailable

Vapor Pressure: data unavailable

Vapor Density: data unavailable

Specific Gravity: 1.562 (EPA, 1998)

Boiling Point: 500.0 ° F at 760 mm Hg (EPA, 1998)

Molecular Weight: 280.43 (EPA, 1998)

Water Solubility: data unavailable

AEGL: data unavailable

ERPG: data unavailable

TEEL-1

0.6 ppm

TEEL-2

7.3 ppm

TEEL-3

33.0 ppm

(SCAPA, 2008)

IDLH: data unavailable

Regulatory Information

[What is this information?](#) ►

Regulatory Names: TRICHLORO(DICHLOROPHENYL)SILANE

CAA RMP: Not a regulated chemical.

CERCLA: Not a regulated chemical.

EHS (EPCRA 302): Regulated chemical with a Reportable Quantity of 500 pounds and a Threshold Planning Quantity of 500 pounds.

TRI (EPCRA 313): Not a regulated chemical.

RCRA Chemical Code: none

Alternate Chemical Names

[What is this information?](#) ►

(DICHLOROPHENYL)TRICHLOROSILANE

DICHLORO PHENYL TRICHLORO SILANE

DICHLOROPHÉNYLTRICHLOROSILANE (DOT FRENCH)

DICLOROFENILTRICLOROSILANO (DOT SPANISH)

SILANE,(DICHLOROPHENYL)TRICHLORO-

TRICHLORO(DICHLOROPHENYL)SILANE