

# Material Safety Data Sheet

## Hexachlorodisilane, 96%

ACC# 98889

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Hexachlorodisilane, 96%

**Catalog Numbers:** AC313520000, AC313520010, AC313520050, AC9862521, AC9862522, NC9332242, XXAC31352-0.2K, XXAC31352-1., XXAC31352-2.

**Synonyms:** None known.

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
13465-77-5	Hexachlorodisilane	96	236-704-1

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear colorless liquid.

**Danger!** Corrosive. Causes eye and skin burns. Water-reactive. Reacts violently and/or explosively with water, steam or moisture. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns.

**Target Organs:** Respiratory system, eyes, skin, mucous membranes.

#### Potential Health Effects

**Eye:** Causes eye burns. May cause chemical conjunctivitis and corneal damage.

**Skin:** Causes skin burns. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

**Ingestion:** May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. May cause systemic effects.

**Inhalation:** Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Aspiration may lead to pulmonary edema. May cause systemic effects. Inhalation at high concentrations may cause CNS depression and asphyxiation.

**Chronic:** Effects may be delayed.

### Section 4 - First Aid Measures

**Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes. If water-reactive products are embedded in the skin, no water should be applied. The embedded products should be covered with a light oil.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Reacts violently with water giving off flammable gas which may explode. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May ignite or explode on contact with steam or moist air. Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. May re-ignite after fire is extinguished. Contact with water liberates highly flammable gases. Runoff from fire control or dilution water may cause pollution.

**Extinguishing Media:** Use dry sand or earth to smother fire. DO NOT USE WATER! Do NOT get water inside containers. Most foams will react with the material and release corrosive/toxic gases. Contact professional fire-fighters immediately. Cool containers with flooding quantities of water until well after fire is out. For fires involving chlorosilanes, an aqueous film forming foam (AFFF) may be used.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 1; Instability: 2; Special Hazard: -W-

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Do not expose spill to water. Do not get water inside containers.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Do not allow water to get into the container because of violent reaction. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Do not allow contact with water. Use only in a chemical fume hood. Discard contaminated shoes. Keep from contact with moist air and steam.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Corrosives area. Storage under a nitrogen blanket has been recommended. Storage for long periods is not recommended.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Hexachlorodisilane	none listed	none listed	none listed

**OSHA Vacated PELs:** Hexachlorodisilane: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear colorless

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** 12 mm Hg @ 40 deg C

**Vapor Density:** 9.2

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** 144-146 deg C

**Freezing/Melting Point:**Not available.

**Decomposition Temperature:**Not available.

**Solubility:** Reacts.

**Specific Gravity/Density:**1.562

**Molecular Formula:**Cl<sub>3</sub>SiSiCl<sub>3</sub>

**Molecular Weight:**268.89

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions. Combines vigorously or explosively with water. May be shock-sensitive.

**Conditions to Avoid:** Excess heat, exposure to moist air or water.

**Incompatibilities with Other Materials:** Alcohols, oxidizing agents, strong bases, water, acids.

**Hazardous Decomposition Products:** Hydrogen chloride, silicon dioxide.

**Hazardous Polymerization:** Has not been reported

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 13465-77-5 unlisted.

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 13465-77-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found  
**Teratogenicity:** No information found  
**Reproductive Effects:** No information found  
**Mutagenicity:** No information found  
**Neurotoxicity:** No information found  
**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.	No information available.
<b>Hazard Class:</b>	4.3	
<b>UN Number:</b>	UN3129	
<b>Packing Group:</b>	II	

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 13465-77-5 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 13465-77-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

C

#### Risk Phrases:

R 14 Reacts violently with water.

R 34 Causes burns.

#### Safety Phrases:

S 25 Avoid contact with eyes.

S 30 Never add water to this product.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face pr

otection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 8 Keep container dry.

**WGK (Water Danger/Protection)**

CAS# 13465-77-5: No information available.

**Canada - DSL/NDSL**

CAS# 13465-77-5 is listed on Canada's NDSL List.

**Canada - WHMIS**

This product has a WHMIS classification of E, F.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

Section 16 - Additional Information
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**MSDS Creation Date:** 11/13/1996

**Revision #14 Date:** 10/03/2005

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*