



# HEXYLTRICHLOROSILANE

Safety Data Sheet SIH6167.0

Date of issue: 10/15/2015

Revision date: 11/21/2019

Version: 1.3

## SECTION 1: Identification

### 1.1. Identification

|                 |   |
|-----------------|---|
| Product name    | : HEXYLTRICHLOROSILANE  |
| Product code    | : SIH6167.0   |
| Product form    | : Substance   |
| Physical state  | : Liquid  |
| Formula         | : C6H13Cl3Si  |
| Synonyms        | : TRICHLOROSILYLHEXANE<br>TRICHLOROHEXYLSILANE<br>TRICHLOROSILANE, HEXYL- |
| Chemical family | : CHLOROSILANE  |

### 1.2. Recommended use and restrictions on use

|                 |                         |
|-----------------|-------------------------|
| Recommended use | : Chemical intermediate |
|-----------------|-------------------------|

### 1.3. Supplier

#### GELEST, INC.

11 East Steel Road  
Morrisville, PA 19067

#### USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

[info@gelest.com](mailto:info@gelest.com) - [www.gelest.com](http://www.gelest.com)

### 1.4. Emergency telephone number

|                  |   |
|------------------|---|
| Emergency number | : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International) |
|------------------|---|

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS US classification

|  |      |   |
|--|------|---|
| Flammable liquids Category 4                 | H227 | Combustible liquid                      |
| Skin corrosion/irritation Category 1B        | H314 | Causes severe skin burns and eye damage |
| Serious eye damage/eye irritation Category 1 | H318 | Causes serious eye damage               |

Full text of H statements : see section 16

### 2.2. GHS Label elements, including precautionary statements

#### GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H227 - Combustible liquid  
H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS US)

: P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P210 - Keep away from heat, open flames, sparks. - No smoking.  
P260 - Do not breathe vapors.  
P264 - Wash hands thoroughly after handling.  
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting  
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep 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  
P310 - Immediately call a doctor  
P321 - Specific treatment (see first aid instructions on this label)  
P363 - Wash contaminated clothing before reuse.  
P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish.  
P403+P235 - Keep in a cool place  
P405 - Store locked up.  
P501 - Dispose of contents/container to licensed waste disposal facility.

### 2.3. Hazards not otherwise classified (HNOC)

Other hazards not contributing to the

: Hydrogen chloride may be formed by reaction with water and moisture in air. The US OSHA

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classification PEL (TWA) for hydrogen chloride is 5 ppm.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Substance type : Mono-constituent  
Name : HEXYLTRICHLOROSILANE  
CAS-No. : 928-65-4

| Name                 | Product identifier | %        | GHS US classification   |
|----------------------|--------------------|----------|---|
| Hexyltrichlorosilane | (CAS-No.) 928-65-4 | 95 - 100 | Flam. Liq. 4, H227<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318 |

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Causes severe skin burns and eye damage.

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Causes (severe) skin burns.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : May be harmful if swallowed.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media : Water.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid. Irritating fumes of hydrogen bromide and organic acid vapors may develop when material is exposed to water or open flame.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

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### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and receiving equipment. Provide good ventilation in process area to prevent accumulation of vapors. Use only non-sparking tools.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed. Keep in a cool place. Store locked up.
- Incompatible materials : Acids. Alcohols. Oxidizing agent.
- Storage area : Store in a well-ventilated place. Store away from heat.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Provide local exhaust or general room ventilation.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Hand protection:

Neoprene or nitrile rubber gloves

#### Eye protection:

Chemical goggles or face shield. Contact lenses should not be worn

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear liquid.
- Molecular mass : 219.61 g/mol
- Color : Straw.
- Odor : Acrid. Similar to hydrogen chloride.
- Odor threshold : No data available
- Refractive index : 1.3473
- pH : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : No data available

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|                                 |  |
|---------------------------------|--|
| Freezing point                  | : < 0 °C                                 |
| Boiling point                   | : 191 - 192 °C                           |
| Flash point                     | : 85 °C                                  |
| Auto-ignition temperature       | : No data available                      |
| Decomposition temperature       | : No data available                      |
| Flammability (solid, gas)       | : Combustible liquid                     |
| Vapor pressure                  | : No data available                      |
| Relative vapor density at 20 °C | : > 1                                    |
| Relative density                | : 1.107                                  |
| Solubility                      | : Insoluble in water. Reacts with water. |
| Log Pow                         | : No data available                      |
| Log Kow                         | : No data available                      |
| Viscosity, kinematic            | : No data available                      |
| Viscosity, dynamic              | : No data available                      |
| Explosive properties            | : No data available                      |
| Oxidizing properties            | : No data available                      |
| Explosion limits                | : No data available                      |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable in sealed containers stored under a dry inert atmosphere.

### 10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating hydrogen chloride.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Acids. Alcohols. Oxidizing agent.

### 10.6. Hazardous decomposition products

Hydrogen chloride. Organic acid vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                                     |  |
|-------------------------------------|--|
| Acute toxicity (oral)               | : Not classified                                 |
| Acute toxicity (dermal)             | : Not classified                                 |
| Acute toxicity (inhalation)         | : Not classified                                 |
| Skin corrosion/irritation           | : Causes severe skin burns and eye damage.       |
| Serious eye damage/irritation       | : Causes serious eye damage.                     |
| Respiratory or skin sensitization   | : Not classified                                 |
| Germ cell mutagenicity              | : Not classified                                 |
| Carcinogenicity                     | : Not classified                                 |
| Reproductive toxicity               | : Not classified                                 |
| STOT-single exposure                | : Not classified                                 |
| STOT-repeated exposure              | : Not classified                                 |
| Aspiration hazard                   | : Not classified                                 |
| Symptoms/effects after inhalation   | : May cause irritation to the respiratory tract. |
| Symptoms/effects after skin contact | : Causes (severe) skin burns.                    |
| Symptoms/effects after eye contact  | : Causes serious eye damage.                     |
| Symptoms/effects after ingestion    | : May be harmful if swallowed.                   |
| Reason for classification           | : Expert judgment                                |

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### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

Effect on the ozone layer : No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.

Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

#### 14.1. UN number

UN-No.(DOT) : 2987

DOT NA No : UN2987

#### 14.2. UN proper shipping name

Transport document description : UN2987 Chlorosilanes, corrosive, n.o.s. (HEXYLTRICHLOROSILANE), 8, II

Proper Shipping Name (DOT) : Chlorosilanes, corrosive, n.o.s.  
(HEXYLTRICHLOROSILANE)

Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT) : II - Medium Danger

Hazard labels (DOT) : 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 206

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Packaging Exceptions (49 CFR 173.xxx) : None

#### 14.3. Additional information

Emergency Response Guide (ERG) Number : 156

Other information : No supplementary information available.

#### Transport by sea

DOT Vessel Stowage Location : C - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

#### Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : Forbidden

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

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### Hexyltrichlorosilane (928-65-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### CANADA

### Hexyltrichlorosilane (928-65-4)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### EU-Regulations

### Hexyltrichlorosilane (928-65-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### National regulations

### Hexyltrichlorosilane (928-65-4)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### Hexyltrichlorosilane (928-65-4)

U.S. - New Jersey - Right to Know Hazardous Substance List

## SECTION 16: Other information

Full text of H-phrases::

|      |   |
|------|---|
| H227 | Combustible liquid                      |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage               |

Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

### Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Prepared by safety and environmental affairs.

Date of issue: 10/15/2015      Revision date: 11/21/2019      Version: 1.3

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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