

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**Product Identifier**

Perihal Produk: **tert-Butylchlorodiphenylsilane**  
 Product Description: **tert-Butylchlorodiphenylsilane**  
 Cat No. : 187500000; 187500100; 187500500; 187502500  
 Synonyms: tert-Butyldiphenylsilyl chloride  
 CAS No 58479-61-1  
 Molecular Formula C16 H19 Cl Si

**Relevant identified uses of the substance or mixture and uses advised against**

Recommended Use Laboratory chemicals.  
 Uses advised against No Information available

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**SECTION 2: HAZARDS IDENTIFICATION**
**Classification of the substance or mixture**

|  |                     |
|--|---------------------|
| Skin Corrosion/Irritation                          | Category 1 B (H314) |
| Serious Eye Damage/Eye Irritation                  | Category 1 (H318)   |
| Specific target organ toxicity - (single exposure) | Category 3 (H335)   |

**Label Elements**

**Signal Word**
**Danger**
**Hazard Statements**

H314 - Causes severe skin burns and eye damage

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H335 - May cause respiratory irritation

## Precautionary Statements

### Prevention

P264 - Wash face, hands and any exposed skin thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves/protective clothing/eye protection/face protection

### Response

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 or 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 POISON CENTER or doctor

P362 + P364 - Take off contaminated clothing and wash it before reuse

### Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

## Other Hazards

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Component                                  | CAS No     | Weight % |
|--|------------|----------|
| Silane, chloro(1,1-dimethylethyl)diphenyl- | 58479-61-1 | >95      |

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

#### General Advice

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

#### Ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately.

#### Inhalation

Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.

#### Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

### Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should

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be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

## Indication of any immediate medical attention and special treatment needed

### Notes to Physician

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

#### Suitable Extinguishing Media

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

#### Extinguishing media which must not be used for safety reasons

No information available.

### Special hazards arising from the substance or mixture

Corrosive material. Contact with water liberates toxic gas. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

### Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride gas.

### Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment as required. Evacuate personnel to safe areas. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

### Environmental precautions

Avoid release to the environment.

### Methods and Material for Containment and Cleaning Up

Do not expose spill to water. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Do not breathe mist/vapors/spray. Do not allow contact with water.

### Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from water or moist air. Store under an inert

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atmosphere. Corrosives area.

## Specific End Uses

Use in laboratories.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

#### Exposure Controls

##### Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

##### **Eye Protection**

Goggles

##### **Hand Protection**

Protective gloves

##### **Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

##### **Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

##### **Recommended Filter type:**

Particulates filter conforming to EN 143 Acid gases filter Type E Yellow conforming to EN14387

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

When RPE is used a face piece Fit Test should be conducted

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

#### Environmental exposure controls

No information available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### **Appearance**

Light yellow

#### **Physical State**

Liquid

#### **Odor**

pungent

#### **Odor Threshold**

No data available

#### **pH**

No information available

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|                     |                   |  |
|---------------------|-------------------|--|
| Melting Point/Range | No data available |  |
| Softening Point     | No data available |  |
| Boiling Point/Range | 135 °C / 275 °F   | @ 0.7 mmHg                               |
| Flash Point         | 149 °C / 300.2 °F | <b>Method -</b> No information available |

|                          |                   |        |
|--------------------------|-------------------|--------|
| Evaporation Rate         | No data available |        |
| Flammability (solid,gas) | Not applicable    | Liquid |
| Explosion Limits         | No data available |        |

|                              |                          |             |
|------------------------------|--------------------------|-------------|
| Vapor Pressure               | No data available        |             |
| Vapor Density                | No data available        | (Air = 1.0) |
| Specific Gravity / Density   | 1.060                    |             |
| Bulk Density                 | Not applicable           | Liquid      |
| Water Solubility             | practically insoluble    |             |
| Solubility in other solvents | No information available |             |

## Partition Coefficient (n-octanol/water)

|                           |                          |
|---------------------------|--------------------------|
| Autoignition Temperature  | 480 °C / 896 °F          |
| Decomposition Temperature | No data available        |
| Viscosity                 | 16 mPa.s at 25 °C        |
| Explosive Properties      | No information available |
| Oxidizing Properties      | No information available |

|                   |               |
|-------------------|---------------|
| Molecular Formula | C16 H19 Cl Si |
| Molecular Weight  | 274.86        |

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

Yes.

### Chemical Stability

Water reactive. Moisture sensitive.

### Possibility of Hazardous Reactions

|                          |  |
|--------------------------|--|
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions      | None under normal processing.            |

### Conditions to Avoid

Incompatible products. Excess heat. Exposure to moist air or water.

### Incompatible Materials

Strong oxidizing agents.

### Hazardous Decomposition Products

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Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen chloride gas.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

**Product Information** No acute toxicity information is available for this product

**(a) acute toxicity;**

Oral

No data available

Dermal

No data available

Inhalation

No data available

**(b) skin corrosion/irritation;**

Category 1 B

**(c) serious eye damage/irritation;**

Category 1

**(d) respiratory or skin sensitization;**

Respiratory

No data available

Skin

No data available

**(e) germ cell mutagenicity;**

No data available

**(f) carcinogenicity;**

No data available

There are no known carcinogenic chemicals in this product

**(g) reproductive toxicity;**

No data available

**(h) STOT-single exposure;**

Category 3

Results / Target organs

Respiratory system.

**(i) STOT-repeated exposure;**

No data available

Target Organs

No information available.

**(j) aspiration hazard;**

No data available

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

**Symptoms / effects, both acute and delayed**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**Endocrine Disrupting Properties**

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

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|  |  |
|--|--|
| <u>Ecotoxicity effects</u>                                 | Do not empty into drains.  |
| <u>Persistence and degradability</u><br><b>Persistence</b> | Insoluble in water, Persistence is unlikely, based on information available.   |
| <u>Bioaccumulative potential</u>                           | May have some potential to bioaccumulate   |
| <u>Mobility in soil</u>                                    | The product is insoluble and sinks in water. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Spillage unlikely to penetrate soil. Is not likely mobile in the environment due its low water solubility. Will likely be mobile in the environment due to its volatility. |
| <u>Endocrine Disruptor Information</u>                     | This product does not contain any known or suspected endocrine disruptors  |
| <u>Other adverse effects</u>                               | No information available   |

## SECTION 13: DISPOSAL CONSIDERATIONS

|  |   |
|--|---|
| <u>Waste treatment methods</u><br><b>Waste from Residues/Unused Products</b> | Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous waste Dispose of in accordance with local regulations                                       |
| <b>Contaminated Packaging</b>  | Dispose of this container to hazardous or special waste collection point.   |
| <b>Other Information</b>   | Waste codes should be assigned by the user based on the application for which the product was used Do not empty into drains Do not flush to sewer Large amounts will affect pH and harm aquatic organisms |

## SECTION 14: TRANSPORT INFORMATION

|                                |                                  |
|--------------------------------|----------------------------------|
| <u>IMDG/IMO</u>                |                                  |
| UN-No                          | UN2987                           |
| Hazard Class                   | 8                                |
| Packing Group                  | II                               |
| Proper Shipping Name           | Chlorosilanes, corrosive, n.o.s. |
| <u>Road and Rail Transport</u> |                                  |
| UN-No                          | UN2987                           |
| Hazard Class                   | 8                                |
| Packing Group                  | II                               |
| Proper Shipping Name           | Chlorosilanes, corrosive, n.o.s. |
| <u>IATA</u>                    |                                  |
| UN-No                          | UN2987                           |
| Hazard Class                   | 8                                |
| Packing Group                  | II                               |
| Proper Shipping Name           | Chlorosilanes, corrosive, n.o.s. |

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Special Precautions for User No special precautions required

## SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories X = listed

| Component                                     | EINECS    | TSCA | DSL | PICCS | ENCS | ISHL | IECSC | AICS | KECL |
|---|-----------|------|-----|-------|------|------|-------|------|------|
| Silane,<br>chloro(1,1-dimethylethyl)diphenyl- | 261-282-0 | X    | -   | X     | -    | X    | -     | X    | -    |

### National Regulations

**Persistent Organic Pollutant** This product does not contain any known or suspected substance  
**Ozone Depletion Potential** This product does not contain any known or suspected substance

## SECTION 16: OTHER INFORMATION

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**POW** - Partition coefficient Octanol:Water

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/MDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### **Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Revision Date 21-Mar-2025  
Revision Summary Not applicable.

**In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013**



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## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**