SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product form : Substance
Physical state : Liquid
Substance name : p-(t-BUTYL)PHENETHYLDIMETHYLCHLOROSILANE
Product code : SIB1972.5
Formula : C14H23ClSi
Synonyms : p-(t-BUTYL)PHENYLETHYLTRICHLOROSILANE
Chemical family : ORGANOCHLOROSILANE

1.2. Relevant identified uses of the substance or mixture and uses advised against
1.2.1. Relevant identified uses
Use of the substance/mixture : Chemical intermediate

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
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 - www.gelest.com

GELEST INC.
Fritz-Klatte-Strasse 8
65933 Frankfurt
Germany
T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM
info@gelestde.com - www.gelestde.com

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Skin corrosion/irritation, Category 1B : H314
Serious eye damage/eye irritation, Category 1 : H318
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms (CLP) : GHS05
Signal word (CLP) : Danger
Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P260 - Do not breathe vapours.
P264 - Wash hands thoroughly after handling.
p-(t-BUTYL)PHENETHYLDIMETHYLCHLOROSILANE
Safety Data Sheet

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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/physician

EUH-statements : EUH014 - Reacts violently with water.

2.3. Other hazards
Other hazards not contributing to the classification : Hydrogen chloride may be formed by reaction with water and moisture in air. The US OSHA PEL (TWA) for hydrogen chloride is 5 ppm.

SECTION 3: Composition/information on ingredients
3.1. Substances
Substance type : Multi-constituent
Name : p-(t-BUTYL)PHENETHYLDIMETHYLCHLOROSILANE
CAS-No. : 93502-75-1

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-(t-Butyl)phenethyldimethylchlorosilane (CAS-No.) 93502-75-1</td>
<td>90 - 100</td>
<td>Skin Corr. 1B, H314</td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td>m-(t-Butyl)phenethyldimethylchlorosilane (CAS-No.) Not found</td>
<td>0 - 10</td>
<td>Skin Corr. 1B, H314</td>
<td>Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

Full text of 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 person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of 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, both 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. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures
5.1. Extinguishing media
Unsuitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture
Fire hazard : Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters
Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.
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 vapour and mist.

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

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”.

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.

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

Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapour and mist. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store locked up.


Storage area: Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

**SECTION 8: Exposure controls/personal protection**

8.1. Control parameters

No additional information available

8.2. Exposure controls

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

**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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear liquid.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>254.87 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour</td>
<td>Acrid. Similar to hydrogen chloride.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>8</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>&lt; 0 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>122 - 123 °C @ 2 mm Hg</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 100 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 1 mm Hg</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.95</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water. Reacts with water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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


10.6. Hazardous decomposition products


SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
**p-({t-BUTYL}PHENETHYLDIMETHYLCHLOROSILANE**

**Safety Data Sheet**

<table>
<thead>
<tr>
<th>STOT-single exposure</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT-repeated exposure</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
<tr>
<td>Symptoms/effects after inhalation</td>
<td>May cause irritation to the respiratory tract.</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
<td>Causes (severe) skin burns.</td>
</tr>
<tr>
<td>Symptoms/effects after eye contact</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>Symptoms/effects after ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
<tr>
<td>Reason for classification</td>
<td>Expert judgment</td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

#### 12.1. Toxicity

- Acute aquatic toxicity: Not classified
- Chronic aquatic toxicity: Not classified

#### 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. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

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

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment 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

In accordance with ADR / RID / IMDG / IATA / ADN

| UN-No. (ADR) | 2987 |
| UN-No. (IMDG) | 2987 |
| UN-No. (IATA) | 2987 |
| UN-No. (ADN) | 2987 |
| UN-No. (RID) | 2987 |

#### 14.2. UN proper shipping name

| Proper Shipping Name (ADR) | CHLOROSILANES, CORROSIVE, N.O.S. |
| Proper Shipping Name (IMDG) | CHLOROSILANES, CORROSIVE, N.O.S. |
| Proper Shipping Name (IATA) | Chlorosilanes, corrosive, n.o.s. |
| Proper Shipping Name (ADN) | CHLOROSILANES, CORROSIVE, N.O.S. |
| Proper Shipping Name (RID) | CHLOROSILANES, CORROSIVE, N.O.S. |
| Transport document description (ADR) | UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. p-({t-BUTYL}PHENETHYLDIMETHYLCHLOROSILANE), 8, II, (E) |
| Transport document description (IMDG) | UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. p-({t-BUTYL}PHENETHYLDIMETHYLCHLOROSILANE), 8, II |
| Transport document description (IATA) | UN 2987 Chlorosilanes, corrosive, n.o.s. p-({t-BUTYL}PHENETHYLDIMETHYLCHLOROSILANE), 8, II |
| Transport document description (ADN) | UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. p-({t-BUTYL}PHENETHYLDIMETHYLCHLOROSILANE), 8, II |
| Transport document description (RID) | UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. p-({t-BUTYL}PHENETHYLDIMETHYLCHLOROSILANE), 8, II |
### 14.3. Transport hazard class(es)

**ADR**
- Transport hazard class(es) (ADR): 8
- Danger labels (ADR): 8

**IMDG**
- Transport hazard class(es) (IMDG): 8
- Danger labels (IMDG): 8

**IATA**
- Transport hazard class(es) (IATA): 8
- Hazard labels (IATA): 8

**ADN**
- Transport hazard class(es) (ADN): 8
- Danger labels (ADN): 8

**RID**
- Transport hazard class(es) (RID): 8
- Danger labels (RID): 8

### 14.4. Packing group

- Packing group (ADR): II
- Packing group (IMDG): II
- Packing group (IATA): II
- Packing group (ADN): II
- Packing group (RID): II

### 14.5. Environmental hazards

- Dangerous for the environment: No
- Marine pollutant: No
- Other information: No supplementary information available
14.6. Special precautions for user

- Overland transport
  Classification code (ADR) : C3
  Special provisions (ADR) : 548
  Limited quantities (ADR) : 0
  Excepted quantities (ADR) : E0
  Packing instructions (ADR) : P010
  Special packing provisions (ADR) : RR7
  Mixed packing provisions (ADR) : MP15
  Portable tank and bulk container instructions (ADR) : T14
  Portable tank and bulk container special provisions (ADR) : TP2, TP7, TP27
  Tank code (ADR) : L4BN
  Vehicle for tank carriage : AT
  Transport category (ADR) : 2
  Hazard identification number (Kemler No.) : X80
  Orange plates : X80
  Tunnel restriction code (ADR) : E
  EAC code : 4W

- Transport by sea
  Limited quantities (IMDG) : 0
  Excepted quantities (IMDG) : E0
  Packing instructions (IMDG) : P010
  Tank instructions (IMDG) : T14
  Tank special provisions (IMDG) : TP2, TP7, TP13, TP27
  EmS-No. (Fire) : F-A
  EmS-No. (Spillage) : S-B
  Stowage category (IMDG) : C
  Stowage and handling (IMDG) : SW2
  Properties and observations (IMDG) : Colourless liquids with a pungent odour. Immiscible with water. React violently with water or steam, evolving hydrogen chloride, an irritating and corrosive gas apparent as white fumes. When involved in a fire, evolve toxic gases. In the presence of moisture, highly corrosive to most metals. Cause burns to skin, eyes and mucous membranes.

- Air transport
  PCA Excepted quantities (IATA) : E0
  PCA Limited quantities (IATA) : Forbidden
  PCA limited quantity max net quantity (IATA) : Forbidden
  PCA packing instructions (IATA) : Forbidden
  PCA max net quantity (IATA) : Forbidden
  CAO packing instructions (IATA) : 876
  CAO max net quantity (IATA) : 30L
  Special provisions (IATA) : A1
  ERG code (IATA) : 8L

- Inland waterway transport
  Classification code (ADN) : C3
  Special provisions (ADN) : 548
  Limited quantities (ADN) : 0
  Excepted quantities (ADN) : E0
  Equipment required (ADN) : PP, EP
  Number of blue cones/lights (ADN) : 0

- Rail transport
  Classification code (RID) : C3
**p-(t-BUTYL)PHENETHYLDIMETHYLCHLOROSILANE**

Safety Data Sheet

<table>
<thead>
<tr>
<th>Special provisions (RID)</th>
<th>548</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantities (RID)</td>
<td>0</td>
</tr>
<tr>
<td>Excepted quantities (RID)</td>
<td>E0</td>
</tr>
<tr>
<td>Packing instructions (RID)</td>
<td>P010</td>
</tr>
<tr>
<td>Mixed packing provisions (RID)</td>
<td>MP15</td>
</tr>
<tr>
<td>Portable tank and bulk container instructions (RID)</td>
<td>T14</td>
</tr>
<tr>
<td>Portable tank and bulk container special provisions (RID)</td>
<td>TP2, TP7, TP27</td>
</tr>
<tr>
<td>Tank codes for RID tanks (RID)</td>
<td>L4BN</td>
</tr>
<tr>
<td>Transport category (RID)</td>
<td>2</td>
</tr>
<tr>
<td>Collis express (express parcels) (RID)</td>
<td>CE6</td>
</tr>
<tr>
<td>Hazard identification number (RID)</td>
<td>X80</td>
</tr>
</tbody>
</table>

**SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

p-(t-BUTYL)PHENETHYLDIMETHYLCHLOROSILANE is not on the REACH Candidate List

p-(t-BUTYL)PHENETHYLDIMETHYLCHLOROSILANE is not on the REACH Annex XIV List

p-(t-BUTYL)PHENETHYLDIMETHYLCHLOROSILANE is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.


#### 15.1.2. National regulations

**Germany**


**Netherlands**

SZW-list of cancercarcinogenic substances: The substance is not listed

SZW-list van mutagene stoffen: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling: The substance is not listed

**Denmark**

Danish National Regulations: Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

**SECTION 16: Other information**

Abbreviations and acronyms:

- ND: Not Determined, No Data
- NA: Not Applicable
- LD: Lethal Dose
- LC: Lethal Concentration
- ATE: Acute Toxicity Estimates
- H: hour
- °C: °C unless otherwise stated
- mmHg: millimeters Hg, torr
- PEL: permissible exposure level
- TWA: time weighted average
- TLV: threshold limit value
- T: 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

Other information: Prepared by safety and environmental affairs.

**Eye Dam. 1**

Serious eye damage/eye irritation, Category 1

**Skin Corr. 1B**

Skin corrosion/irritation, Category 1B
### p-(t-BUTYL)PHENETHYLDIMETHYLCHLOROSILANE

**Safety Data Sheet**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>EUH014</td>
<td>Reacts violently with water.</td>
</tr>
</tbody>
</table>

**SDS EU (REACH Annex II) - Custom**

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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