SECTION 1: Identification

1.1. Identification

Product name: (2-METHYL-2-PHENYLETHYL)METHYLDICHLOROSILANE
Product code: SIM6512.5
Product form: Substance
Physical state: Liquid
Formula: C10H14Cl2Si
Synonyms: METHYL(α-METHYLPHENETHYL)DICHLOROSILANE; (2-PHENYLPROPYL)METHYLDICHLOROSILANE; DICHLOROMETHYL(2-PHENYLPROPYL)SILANE
Chemical family: ORGANOCHLOROSILANE

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 - 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
Skin corrosion/irritation: H314 - Causes severe skin burns and eye damage
Category 1B
Serious eye damage/eye irritation Category 1
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): H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
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
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Hazards not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable
# 2-METHYL-2-PHENYLETHYL)METHYLDICHLOROSILANE

**Safety Data Sheet**

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

<table>
<thead>
<tr>
<th>Substances</th>
<th>Substance type</th>
<th>Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2-Methyl-2-phenethyl)methyldichlorosilane</td>
<td>Mono-constituent</td>
<td>(2-METHYL-2-PHENYLETHYL)METHYLDICHLOROSILANE</td>
<td>13617-28-2</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td></td>
<td>(CAS-No.) 13617-28-2</td>
<td>&gt; 95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1B, H314 Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(CAS-No.) 7647-01-0</td>
<td>Skin Corr. 1A, H314 Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

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. Get medical advice/attention.
- **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.

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

- **Symptoms/effects**:
  - Causes (severe) skin burns.
  - Causes serious eye damage.
  - 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**: Irritating fumes of hydrogen chloride 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**: Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.
- **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

**6.1.1. For non-emergency personnel**

- **Emergency procedures**: Evacuate unnecessary personnel.

**6.1.2. For emergency responders**

- **Protective equipment**: Equip cleanup crew with proper 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

- **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.
(2-METHYL-2-PHENYLETHYL)METHYLDICHLOROSILANE
Safety Data Sheet

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 vapor and mist. Provide good ventilation in process area to prevent accumulation of vapors.
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.
Incompatible materials: Alkalis, Metal salts, Oxidizing agent, Precious metals.
Storage area: Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Hydrochloric acid (7647-01-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH Ceiling (ppm)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (Ceiling) (mg/m³)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (Ceiling) (ppm)</td>
</tr>
<tr>
<td>IDLH</td>
<td>US IDLH (ppm)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (ceiling) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (ceiling) (ppm)</td>
</tr>
</tbody>
</table>

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:
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>233.21 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>Acrid. Similar to hydrogen chloride.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>1.5152</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt; 0 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>104 - 105 °C @ 9 mm Hg</td>
</tr>
</tbody>
</table>
**Flash point**: > 110 °C

**Auto-ignition temperature**: No data available

** Decomposition temperature**: No data available

** Flammability (solid, gas)**: No data available

** Vapor pressure**: < 1 mm Hg @ 25°C

** Relative vapor density at 20 °C**: > 1

** Relative density**: 1.1165

** 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


#### 10.6. Hazardous decomposition products


### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

** Acute toxicity**: Not classified

** Hydrochloric acid (7647-01-0)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>238 - 277 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 5010 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>1.68 mg/l (Exposure time: 1 h)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>238 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>1.68 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>1.68 mg/l/4h</td>
</tr>
</tbody>
</table>

** 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

** Hydrochloric acid (7647-01-0)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
<td>3 - Not classifiable</td>
</tr>
</tbody>
</table>

** Reproductive toxicity**: Not classified

** Specific target organ toxicity – single exposure**: Not classified

** Specific target organ toxicity – repeated exposure**: Not classified

** Aspiration hazard**: Not classified
Symptoms/effects after inhalation: May cause irritation to the respiratory tract. Overexposure may cause: Coughing. Headache. Nausea.
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

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
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. ((2-METHYL-2-PHENYLETHYL)METHYLDICHLOROSILANE), 8, II
Proper Shipping Name (DOT): Chlorosilanes, corrosive, n.o.s. ((2-METHYL-2-PHENYLETHYL)METHYLDICHLOROSILANE)
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
(2-METHYL-2-PHENYLETHYL)METHYLDICHLOROSILANE
Safety Data Sheet

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

SECTION 15: Regulatory information

15.1. US Federal regulations

Hydrochloric acid (7647-01-0)

| Listed on the United States TSCA (Toxic Substances Control Act) inventory |
| Listed on the United States SARA Section 302 |
| Subject to reporting requirements of United States SARA Section 313 |

| SARA Section 302 Threshold Planning Quantity (TPQ) | 500 (gas only) |
| SARA Section 313 - Emission Reporting | 1 % (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size) |

(2-Methyl-2-phenylethyl)methyldichlorosilane (13617-28-2)

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

15.2. International regulations

CANADA

Hydrochloric acid (7647-01-0)

| Listed on the Canadian DSL (Domestic Substances List) |

| WHMIS Classification | Class A - Compressed Gas |
| | Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects |
| | Class E - Corrosive Material |

(2-Methyl-2-phenylethyl)methyldichlorosilane (13617-28-2)

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

EU-Regulations

Hydrochloric acid (7647-01-0)

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

(2-Methyl-2-phenylethyl)methyldichlorosilane (13617-28-2)

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

National regulations

Hydrochloric acid (7647-01-0)

| 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 the Korean ECL (Existing Chemicals List) |
| Listed on NZIoC (New Zealand Inventory of Chemicals) |
| Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) |
| Japanese Poisonous and Deleterious Substances Control Law |
| Listed on the Canadian IDL (Ingredient Disclosure List) |
| Listed on INSQ (Mexican National Inventory of Chemical Substances) |
| Listed on CICR (Turkish Inventory and Control of Chemicals) |

(2-Methyl-2-phenylethyl)methyldichlorosilane (13617-28-2)

| Listed on the AICS (Australian Inventory of Chemical Substances) |
| Listed on the Japanese ISHL (Industrial Safety and Health Law) |
| Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) |

15.3. US State regulations

Hydrochloric acid (7647-01-0)

| U.S. - Massachusetts - Right To Know List |
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |
| U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

Full text of H-phrases:

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: °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 | 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB) |
| 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: 01/30/2015  Version: 1.0

SDS US (GHS HazCom 2012) - Custom

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

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.

© 2018 Gelest Inc. Morrisville, PA 19067