

**ADAMANTYLETHYLTRICHLOROSILANE****Safety Data Sheet SIA0325.0**

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Version: 1.1

**SECTION 1: Identification****1.1. Identification**

|                 |                                                                                     |
|-----------------|-------------------------------------------------------------------------------------|
| Product name    | : ADAMANTYLETHYLTRICHLOROSILANE                                                     |
| Product code    | : SIA0325.0                                                                         |
| Product form    | : Substance                                                                         |
| Physical state  | : Solid                                                                             |
| Formula         | : C <sub>12</sub> H <sub>19</sub> Cl <sub>3</sub> Si                                |
| Synonyms        | : TRICHLOROSILYLETHYLADAMANTANE; TRICHLORO(2-TRICYCLO[3.3.1.1.3,7]DECYLETHYL)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](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**

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)

: H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

Precautionary statements (GHS US)

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

P260 - Do not breathe dust.

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

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### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Substance type : Mono-constituent  
Name : ADAMANTYLETHYLTRICHLOROSILANE  
CAS-No. : 37843-11-1

| Name                          | Product identifier   | %        | GHS-US classification                   |
|-------------------------------|----------------------|----------|-----------------------------------------|
| Adamantylethyltrichlorosilane | (CAS-No.) 37843-11-1 | 95 - 100 | 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. 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 and eye damage.

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.

#### 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 contact with skin and eyes. Do not breathe dust.

### 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.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.
- 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 : 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:

NIOSH-certified dust and mist (orange cartridge) respirator.

### SECTION 9: Physical and chemical properties

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

- Physical state : Solid
- Appearance : Solid.
- Molecular mass : 297.73 g/mol
- Color : Off-white.
- Odor : Acrid. Similar to hydrogen chloride.
- Odor threshold : No data available
- Refractive index : 1.5135
- pH : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : 36 - 37 °C
- Freezing point : No data available
- Boiling point : 135 °C @ 3 mm Hg
- Flash point : 155 °C
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapor pressure : < 0.1 mm Hg @ 25°C
- Relative vapor density at 20 °C : No data available
- Relative density : 1.2204
- Solubility : Insoluble in water. Reacts with water.
- Log Pow : No data available
- Log Kow : No data available

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|                      |                     |
|----------------------|---------------------|
| 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                                     | : 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                                                                                     |
| 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                 |

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### 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. (ADAMANTYLETHYLTRICHLOROSILANE), 8, II
- Proper Shipping Name (DOT) : Chlorosilanes, corrosive, n.o.s.  
(ADAMANTYLETHYLTRICHLOROSILANE)
- 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

##### Adamantylethyltrichlorosilane (37843-11-1)

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

#### 15.2. International regulations

##### CANADA

##### Adamantylethyltrichlorosilane (37843-11-1)

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

##### EU-Regulations

##### Adamantylethyltrichlorosilane (37843-11-1)

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

##### National regulations

No additional information available

#### 15.3. US State regulations

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

### 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 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.

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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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