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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Substance name</td>
<td>n-OCTADECYLDIMETHYLCHLOROSILANE, 97%</td>
</tr>
<tr>
<td>REACH registration No</td>
<td>01-2120764368-43-0003</td>
</tr>
<tr>
<td>Product code</td>
<td>SIO6615.1</td>
</tr>
<tr>
<td>Formula</td>
<td>C20H43ClSi</td>
</tr>
<tr>
<td>Synonyms</td>
<td>CHLORODIMETHYLOCTADECYLISILANE DIMETHYL-n-OCTADECYLCYCLOROSILANE</td>
</tr>
<tr>
<td>Chemical family</td>
<td>CHLOROSILANE</td>
</tr>
</tbody>
</table>

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
n-OCTADECYLDIMETHYLCHLOROSILANE, 97%
Safety Data Sheet

Hazard statements (CLP): H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP): P280 - Wear protective gloves/protective clothing/eye protection/face protection. P260 - Do not breathe dust. P264 - Wash hands thoroughly after handling. 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

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Substance type: Multi-constituent
Name: n-OCTADECYLDIMETHYLCHLOROSILANE, 97%
CAS-No.: 18643-08-8
EC-No.: 242-472-2

<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>Octadecyldimethylchlorosilane</td>
<td>(CAS-No.) 18643-08-8 (EC-No.) 242-472-2</td>
<td>&gt; 95 Skin Corr. 1B, H314 Eye Dam. 1, H318</td>
<td></td>
</tr>
<tr>
<td>Other Octadecyldimethylchlorosilane isomers</td>
<td>(CAS-No.) not found</td>
<td>&lt; 6 Skin Corr. 1B, H314 Eye Dam. 1, H318</td>
<td></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. Get medical advice/attention.
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 immediate medical advice/attention.

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. Overexposure may cause: Cough. 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. 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 of hydrogen chloride and organic acid vapors may develop when material is exposed to water or open flame.
## 5.3. Advice for firefighters

**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.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Precautions for safe handling**: Avoid contact with skin and eyes. Do not breathe. 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.

### 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**: 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**: Solid
n-OCTADECYLDIMETHYLCHLOROSILANE, 97%
Safety Data Sheet

**Appearance**: Waxy. Solid.

**Molecular mass**: 347.1 g/mol

**Colour**: Off-white.

**Odour**: Acrid. Similar to hydrogen chloride.

**Odour threshold**: No data available

**Refractive index**: 1.4998

**pH**: No data available

**Relative evaporation rate (butylacetate=1)**: No data available

**Melting point**: 28 - 30 °C

**Freezing point**: No data available

**Boiling point**: 159 °C @ 0.1 mm Hg

**Flash point**: 201 °C

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

**Decomposition temperature**: No data available

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

**Vapour pressure**: < 0.01 mm Hg @ 25°C

**Relative vapour density at 20 °C**: No data available

**Relative density**: 0.856

**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

**Oxidising properties**: No data available

**Explosive 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.


**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 sensitisation**: Not classified

**Germ cell mutagenicity**: Not classified

**Carcinogenicity**: Not classified

None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

**Reproductive toxicity**: Not classified

**STOT-single exposure**: Not classified
n-OCTADECYLDIMETHYLCHLOROSILANE, 97%
Safety Data Sheet

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Overexposure may cause: Cough. 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
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
Product/Packaging disposal recommendations : May be incinerated. 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

14.1. UN number
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. (n-OCTADECYLDIMETHYLCHLOROSILANE), 8, II, (E)
Transport document description (IMDG) : UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. (n-OCTADECYLDIMETHYLCHLOROSILANE), 8, II
Transport document description (IATA) : UN 2987 Chlorosilanes, corrosive, n.o.s. (n-OCTADECYLDIMETHYLCHLOROSILANE), 8, II
Transport document description (ADN) : UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. (n-OCTADECYLDIMETHYLCHLOROSILANE), 8, II
Transport document description (RID) : UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. (n-OCTADECYLDIMETHYLCHLOROSILANE), 8, II

14.3. Transport hazard class(es)
ADR
n-OCTADECYLDIMETHYLCHLOROSILANE, 97%
Safety Data Sheet

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
  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
  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

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

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

n-OCTADECYLDIMETHYLCHLOROSILANE, 97% is not on the REACH Candidate List
n-OCTADECYLDIMETHYLCHLOROSILANE, 97% is not on the REACH Annex XIV List
15.1.2. National regulations

Germany
Reference to AwSV : Water hazard class (WGK) 1, low hazard to water (Classification according to VwVwS, Annex 1 or 2; ID No. 557)
12th Ordinance Implementing the Federal Immission Control Act - 12.BlmSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-lijst van kankerverwekkende stoffen : The substance is not listed
SZW-lijst van mutagene stoffen : The substance is not listed
NIET-limiatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed
NIET-limiatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed
NIET-limiatieve 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:

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

Other information : Prepared by safety and environmental affairs.
Full text of H- and EUH-statements:

| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1B |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |

SDS EU (REACH Annex II) - Custom

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