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

1.1. Product identifier

Product form: Substance
Physical state: Liquid
Substance name: (N,N-DIMETHYLAMINO)TRIMETHYLSILANE
Product code: SID3605.0
Formula: C₅H₁₅NS
Synonyms: TMSDMA; PENTAMETHYLSILANAMINE; TRIMETHYLSILYLDIMETHYLAMINE
Chemical family: ORGANOAMINOSILANE

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]
Flammable liquids, Category 2 H225
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):

Signal word (CLP): Danger
Hazard statements (CLP): H225 - Highly flammable liquid and vapour.
H314 - Causes severe skin burns and eye damage.

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Substance type</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N,N-dimethylamino)trimethylsilane</td>
<td>Mono-constituent</td>
<td>(CAS-No.) 2083-91-2</td>
<td>95 - 100</td>
<td>Flam. Liq. 2, H225 Skin Corr. 1B, H314 Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(EC-No.) 218-222-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other hazards: No additional information available

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 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: Highly flammable liquid and vapour. Irritating fumes of dimethylamine and organic acid vapors may develop when material is exposed to water or open flame.

Explosion hazard: May form flammable/explosive vapour-air mixture.

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 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**

**General measures**

Remove ignition sources. Use special care to avoid static electric charges.

**6.1.1. For non-emergency personnel**

Evacuate unnecessary personnel.

**6.1.2. For emergency responders**

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**

Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools.

**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**

Handle empty containers with care because residual vapours are flammable.

Avoid all eye and skin contact and do not breathe vapour and mist. Provide good ventilation in process area to prevent formation of vapour. Containers must be properly grounded before beginning transfer. Take precautionary measures against static discharge. Use only non-sparking tools.

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**

Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.

Keep container tightly closed.

Acids, alcohols, oxidizing agent.

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 - amine gas (brown 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>117.27 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>Straw</td>
</tr>
<tr>
<td>Odour</td>
<td>Acrid. Amine.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>1.397</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>&gt; 1</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>85 - 86 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>-19 °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>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
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<tr>
<td>Relative vapour density at 20 °C</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.741</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>100 %</td>
</tr>
<tr>
<td>Solubility</td>
<td>Reacts with water.</td>
</tr>
<tr>
<td>Log Pow</td>
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<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
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<tr>
<td>Viscosity, dynamic</td>
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<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

React with water and moisture in air, liberating dimethylamine.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Acids. alcohols. Oxidizing agent.

### 10.6. Hazardous decomposition products

Dimethylamine. Organic acid vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
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<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
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<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>
</tbody>
</table>
(N,N-DIMETHYLAMINO)TRIMETHYLSILANE
Safety Data Sheet

Reproductive toxicity: Not classified
STOT-single exposure: Not classified
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.
Additional information: Handle empty containers with care because residual vapours are flammable.
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) : 2733
UN-No. (IMDG) : 2733
UN-No. (IATA) : 2733
UN-No. (ADN) : 2733
UN-No. (RID) : 2733

14.2. UN proper shipping name
Proper Shipping Name (ADR) : AMINES, FLAMMABLE, CORROSIVE, N.O.S.
Proper Shipping Name (IMDG) : AMINES, FLAMMABLE, CORROSIVE, N.O.S.
Proper Shipping Name (IATA) : Amines, flammable, corrosive, n.o.s.
Proper Shipping Name (ADN) : AMINES, FLAMMABLE, CORROSIVE, N.O.S.
Proper Shipping Name (RID) : AMINES, FLAMMABLE, CORROSIVE, N.O.S.
Transport document description (ADR) : UN 2733 AMINES, FLAMMABLE, CORROSIVE, N.O.S. ((N,N-DIMETHYLAMINO)TRIMETHYLSILANE), 3 (8), II, (DIE)
Transport document description (IMDG) : UN 2733 AMINES, FLAMMABLE, CORROSIVE, N.O.S. ((N,N-DIMETHYLAMINO)TRIMETHYLSILANE), 3 (8), II
Transport document description (IATA) : UN 2733 Amines, flammable, corrosive, n.o.s. ((N,N-DIMETHYLAMINO)TRIMETHYLSILANE), 3 (8), II
Transport document description (ADN) : UN 2733 AMINES, FLAMMABLE, CORROSIVE, N.O.S. ((N,N-DIMETHYLAMINO)TRIMETHYLSILANE), 3 (8), II
# (N,N-DIMETHYLAMINO)TRIMETHYLSILANE

**Safety Data Sheet**

<table>
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<tr>
<th>Transport document description (RID)</th>
<th>UN 2733 AMINES, FLAMMABLE, CORROSIVE, N.O.S. ((N,N-DIMETHYLAMINO)TRIMETHYLSILANE), 3 (8), II</th>
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</table>

## 14.3. Transport hazard class(es)

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<th>Transport hazard class(es) (ADR)</th>
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<td>Danger labels (ADR)</td>
<td>3, 8</td>
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</table>

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</table>

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<th>IATA</th>
<th>Transport hazard class(es) (IATA)</th>
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<td>Hazard labels (IATA)</td>
<td>3, 8</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ADN</th>
<th>Transport hazard class(es) (ADN)</th>
<th>3 (8)</th>
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<tbody>
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<td></td>
<td>Danger labels (ADN)</td>
<td>3, 8</td>
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</tbody>
</table>

<table>
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<th>RID</th>
<th>Transport hazard class(es) (RID)</th>
<th>3 (8)</th>
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</thead>
<tbody>
<tr>
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<td>Danger labels (RID)</td>
<td>3, 8</td>
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</tbody>
</table>

## 14.4. Packing group

<table>
<thead>
<tr>
<th>Packing group (ADR)</th>
<th>II</th>
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<tbody>
<tr>
<td>Packing group (IMDG)</td>
<td>II</td>
</tr>
<tr>
<td>Packing group (IATA)</td>
<td>II</td>
</tr>
<tr>
<td>Packing group (ADN)</td>
<td>II</td>
</tr>
<tr>
<td>Packing group (RID)</td>
<td>II</td>
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</tbody>
</table>

## 14.5. Environmental hazards

<table>
<thead>
<tr>
<th>Dangerous for the environment</th>
<th>No</th>
</tr>
</thead>
</table>

---

Print date: 11/04/2019  EN (English)  SDS ID: SID3605.0
Marine pollutant: No
Other information: No supplementary information available

14.6. Special precautions for user

- Overland transport
  Classification code (ADR): FC
  Special provisions (ADR): 274, 544
  Limited quantities (ADR): 1 L
  Excepted quantities (ADR): E2
  Packing instructions (ADR): P001, IBC02
  Mixed packing provisions (ADR): MP19
  Portable tank and bulk container instructions (ADR): T11
  Portable tank and bulk container special provisions (ADR): TP1, TP27
  Tank code (ADR): L4BH
  Vehicle for tank carriage: FL
  Transport category (ADR): 2
  Special provisions for carriage - Operation (ADR): S2, S20
  Hazard identification number (Kemler No.): 338
  Orange plates:

  - Transport by sea
    Special provisions (IMDG): 274
    Limited quantities (IMDG): 1 L
    Excepted quantities (IMDG): E2
    Packing instructions (IMDG): P001
    IBC packing instructions (IMDG): IBC02
    Tank instructions (IMDG): T11
    Tank special provisions (IMDG): TP1, TP27
    EmS-No. (Fire): F-E
    EmS-No. (Spillage): S-C
    Stowage category (IMDG): B
    Stowage and handling (IMDG): SW2
    Segregation (IMDG): SG35
    Properties and observations (IMDG): Colourless to yellowish liquids with an unpleasant odour. Some are very volatile. Miscible with water. Corrosive to most metals, especially to copper and its alloys. When involved in a fire, evolve toxic gases. Reacts violently with acids. Harmful by inhalation. Cause burns to skin, eyes and mucous membranes.

- Air transport
  PCA Excepted quantities (IATA): E2
  PCA Limited quantities (IATA): Y340
  PCA limited quantity max net quantity (IATA): 0.5 L
  PCA packing instructions (IATA): 352
  PCA max net quantity (IATA): 1 L
  CAO packing instructions (IATA): 363
  CAO max net quantity (IATA): 5 L
  Special provisions (IATA): A3
  ERG code (IATA): 3C

- Inland waterway transport
  Classification code (ADN): FC
  Special provisions (ADN): 274, 544
  Limited quantities (ADN): 1 L
(N,N-DIMETHYLAMINO)TRIMETHYLSILANE
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**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,N-DIMETHYLAMINO)TRIMETHYLSILANE is not on the REACH Candidate List

(N,N-DIMETHYLAMINO)TRIMETHYLSILANE is not on the REACH Annex XIV List

(N,N-DIMETHYLAMINO)TRIMETHYLSILANE 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.


% Volatiles : 100 %

15.1.2. National regulations

**Germany**

12th Ordinance Implementing the Federal Immission Control Act - 12. BImSchV : 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-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**

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

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

**Section 16: Other information**
Abbreviations and acronyms:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>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</td>
</tr>
</tbody>
</table>

Other information:

Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Flam. Liq. 2</td>
<td>Flammable liquids, Category 2</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation, Category 1B</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<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>
</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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