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

### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Substance name</td>
<td>BIS(DIMETHYLAMINO)VINYLMETHYLSILANE</td>
</tr>
<tr>
<td>Product code</td>
<td>SIB1080.0</td>
</tr>
<tr>
<td>Formula</td>
<td>C(<em>7)H(</em>{18})N(_2)Si</td>
</tr>
<tr>
<td>Synonyms</td>
<td>BIS(DIMETHYLAMINO)METHYLVINYLSILANE</td>
</tr>
<tr>
<td></td>
<td>METHYLVINYLBI(DIMETHYLAMINO)SILANE</td>
</tr>
<tr>
<td></td>
<td>VINYL(METHYLBI(DIMETHYLAMINO)SILANE</td>
</tr>
<tr>
<td></td>
<td>ETHENYLMETHYLBI(DIMETHYLAMINO)SILANE</td>
</tr>
<tr>
<td></td>
<td>SILANEDIAMINE, N,N',N',1-PENTAMETHYL-1-VINYL</td>
</tr>
<tr>
<td></td>
<td>1-ETHENYL-N,N,N',N',1-PENTAMETHYLISILANEDIAMINE</td>
</tr>
<tr>
<td>Chemical family</td>
<td>ORGANOAMINOSILANE</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@gelesteurope.com - www.gelest.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 1, Sub-Category 1B: H314
- Serious eye damage/eye irritation, Category 1: H318

Full text of H- and EUH-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available
BIS(DIMETHYLAMINO)VINYLMETHYL SILANE
Safety Data Sheet

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms (CLP):

<table>
<thead>
<tr>
<th>Signal word (CLP)</th>
<th>Hazard pictograms (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danger</td>
<td>GHS02</td>
</tr>
<tr>
<td></td>
<td>GHS05</td>
</tr>
</tbody>
</table>

Hazard statements (CLP):
- H225 - Highly flammable liquid and vapour.
- 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 vapours.
- P264 - Wash hands thoroughly after handling.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240 - Ground/bond container and receiving equipment.
- P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Other hazards
Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances
Substance type: Mono-constituent
Name: BIS(DIMETHYLAMINO)VINYLMETHYL SILANE
CAS-No.: 13368-45-1
EC-No.: 236-437-0

<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>Bis(dimethylamino)vinylnethylsilane</td>
<td>(CAS-No.) 13368-45-1</td>
<td>97 – 100</td>
<td>Flam. Liq. 2, H225, Skin Corr. 1A, H314, 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. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects:
- Causes severe skin burns and eye damage.
Symptoms/effects after inhalation:
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. Hydrogen gas can form in the presence of alkalis and metal salts. Irritating fumes of diethylamine 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: Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.
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: Eliminate every possible source of ignition. Use special care to avoid static electric charges.

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. Use only non-sparking tools.

6.4. Reference to other sections
See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Additional hazards when processed: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapour and mist. Ground/bond container and receiving equipment. Provide good ventilation in process area to prevent formation of vapour. Take precautionary measures against static discharge. Use only non-sparking tools.
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
Technical measures: Ground/bond container and receiving equipment. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.
Storage conditions: Keep container tightly closed. Keep in a cool place. 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
Bis(dimethylamino)vinylmethyrsilane (13368-45-1)
Italy - Portugal - USA ACGIH | ACGIH OEL TWA [ppm]
10 ppm (Dimethylamine)
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>158.32 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>1.4332</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>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt; 0 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>146 – 147 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>-4 °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</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.82</td>
</tr>
<tr>
<td>Solubility</td>
<td>Reacts with water.</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Pow)</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (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 dimethylamine. Hazardous polymerization may occur.
10.4. Conditions to avoid
Heat. Open flame. Sparks.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Dimethylamine. Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes severe skin burns.</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>

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

11.2. Reproductive toxicity
Not classified

11.3. STOT—single exposure
Not classified

11.4. STOT—repeated exposure
Not classified

11.5. Aspiration hazard
Not classified

11.6. Symptoms/effects after inhalation
May cause irritation to the respiratory tract. Overexposure may cause: Cough. Headache. Nausea.

11.7. Symptoms/effects after skin contact
Causes (severe) skin burns.

11.8. Symptoms/effects after eye contact
Causes serious eye damage.

11.9. Symptoms/effects after ingestion
May be harmful if swallowed.

11.10. Reason for classification
Expert judgment

SECTION 12: Ecological information

12.1. Toxicity

| Hazardous to the aquatic environment, short-term (acute) | Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | 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
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. |
| 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 / IMDG / IATA / ADN / RID

| UN-No. (ADR) | 2924 |
| UN-No. (IMDG) | 2924 |
| UN-No. (IATA) | 2924 |
| UN-No. (ADN) | 2924 |
| UN-No. (RID) | 2924 |

14.2. UN proper shipping name

| Proper Shipping Name (ADR) | FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Proper Shipping Name (IMDG) | FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Proper Shipping Name (IATA) | Flammable liquid, corrosive, n.o.s. |
| Proper Shipping Name (ADN) | FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Proper Shipping Name (RID) | FLAMMABLE LIQUID, CORROSIVE, N.O.S. |

| Transport document description (ADR) | UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (BIS(DIMETHYLAMINO)VINYLMETHYLSILANE), 3 (8), II, (D/E) |
| Transport document description (IMDG) | UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (BIS(DIMETHYLAMINO)VINYLMETHYLSILANE), 3 (8), II |
| Transport document description (IATA) | UN 2924 Flammable liquid, corrosive, n.o.s. (BIS(DIMETHYLAMINO)VINYLMETHYLSILANE), 3 (8), II |
| Transport document description (ADN) | UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (BIS(DIMETHYLAMINO)VINYLMETHYLSILANE), 3 (8), II |
| Transport document description (RID) | UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (BIS(DIMETHYLAMINO)VINYLMETHYLSILANE), 3 (8), II |

14.3. Transport hazard class(es)

**ADR**

| Transport hazard class(es) (ADR) | 3 (8) |
| Danger labels (ADR) | 3, 8 |

**IMDG**

| Transport hazard class(es) (IMDG) | 3 (8) |
| Danger labels (IMDG) | 3, 8 |

**IATA**

| Transport hazard class(es) (IATA) | 3 (8) |
| Danger labels (IATA) | 3, 8 |

**ADN**

| Transport hazard class(es) (ADN) | 3 (8) |
| Danger labels (ADN) | 3, 8 |
BIS(DIMETHYLAMINO)VINYLMETHYLSILANE
Safety Data Sheet

RID
Transport hazard class(es) (RID) : 3 (8)
Danger labels (RID) : 3, 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) : FC
Special provisions (ADR) : 274
Limited quantities (ADR) : 1L
Excepted quantities (ADR) : E2
Packaging 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) : TP2, 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 : 338
Tunnel restriction code (ADR) : D/E
EAC code : •3WE
APP code : A(fl)

- Transport by sea
Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packaging instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
BIS(DIMETHYLAMINO)VINYLMETHYLSILANE
Safety Data Sheet

Tank instructions (IMDG) : T11
Tank special provisions (IMDG) : TP2, TP27
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-C
Stowage category (IMDG) : B
Stowage and handling (IMDG) : SW2
Properties and observations (IMDG) : Causes 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) : 0.5L
PCA packing instructions (IATA) : 352
PCA max net quantity (IATA) : 1L
CAO packing instructions (IATA) : 363
CAO max net quantity (IATA) : 5L
Special provisions (IATA) : A3, A803
ERG code (IATA) : 3CH

- Inland waterway transport
Classification code (ADN) : FC
Special provisions (ADN) : 274
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 1

- Rail transport
Classification code (RID) : FC
Special provisions (RID) : 274
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T11
Portable tank and bulk container special provisions (RID) : TP2, TP27
Tank codes for RID tanks (RID) : L4BH
Transport category (RID) : 2
Colis express (express parcels) (RID) : CE7
Hazard identification number (RID) : 338

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

BIS(DIMETHYLAMINO)VINYLMETHYLSILANE is not on the REACH Candidate List
BIS(DIMETHYLAMINO)VINYLMETHYLSILANE is not on the REACH Annex XIV List
BIS(DIMETHYLAMINO)VINYLMETHYLSILANE 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
Regulatory reference : Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV)
Hazardous Incident Ordinance (12. BlmSchV) : Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

Netherlands
SZW-lijt van kankerverwekkende stoffen : The substance is not listed
SZW-lijt van mutagene stoffen : The substance is not listed
SZW-lijt van reprotoxische stoffen – Borstvoeding : The substance is not listed
SZW-lijt van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed
SZW-lijt van reprotoxische 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

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
Flam. Liq. 2 Flammable liquids, Category 2
H225 Highly flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
Skin Corr. 1A Skin corrosion/irritation, Category 1, Sub-Ccategory 1A
Skin Corr. 1B Skin corrosion/irritation, Category 1, Sub-Category 1B

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