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

1.1. Product identifier

Product form: Substance
Physical state: Liquid
Substance name: (DIPHENYL)METHYL(DIMETHYLAMINO)SILANE
Product code: SID4552.5
Formula: C15H19NSi
Synonyms: SILANAMINE, N,N,1-TRIMETHYL-1,1-DIPHENYL
Chemical family: ORGANOAMINOSILANE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: Chemical intermediate
For research use only

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

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 (GHS-US)
Flam. Liq. 4 H227
Skin Irrit. 2 H315
Eye Irrit. 2A H319
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling
Hazard pictograms (GHS-US):

Signal word (GHS-US): Warning
Hazard statements (GHS-US): H227 - Combustible liquid
H315 - Causes skin irritation
H319 - Causes serious eye irritation
Precautionary statements (GHS-US): P280 - Wear protective gloves/protective clothing/eye protection/face protection
P210 - Keep away from heat, open flames, sparks. - No smoking
P264 - Wash hands thoroughly after handling
P302+P352 - If on skin: Wash with plenty of water
P332+P313 - If skin irritation occurs: Get medical advice/attention
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention
P321 - Specific treatment (see first aid instructions on this label)
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish
P403+P235 - Keep in a cool place
P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Other hazards

Other hazards not contributing to the classification: Additional dimethylamine may be formed by reaction with moisture and water. The US OSHA PEL (TWA) for dimethylamine is 10 ppm.
2.4. Unknown acute toxicity (GHS US)
No data available

SECTION 3: Composition/information on ingredients

3.1. Substance
Substance type : Mono-constituent
Name : (DIPHENYL) METHYL(DIMETHYLAMINO) SILANE
CAS No : 68733-63-1

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Diphenyl)methyl(dimethylamino)silane</td>
<td>(CAS No) 68733-63-1</td>
<td>95 - 100</td>
<td>Flam. Liq. 4, H227, Skin Irrit. 2, H315, Eye Irrit. 2A, H319</td>
</tr>
</tbody>
</table>

3.2. Mixture
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. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact : Wash with plenty of soap and water. Get 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 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/injuries after inhalation : May cause irritation to the respiratory tract.
Symptoms/injuries after skin contact : Causes skin irritation.
Symptoms/injuries after eye contact : Causes serious eye irritation.
Symptoms/injuries 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 : Do not use straight streams.

5.2. Special hazards arising from the substance or mixture
Fire hazard : Combustible liquid. Irritating fumes of dimethylamine 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 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
General measures : Remove ignition sources. 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. 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

Additional hazards when processed: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapor and mist. All transfers should be maintained under a dry inert atmosphere of nitrogen or argon. Provide good ventilation in process area to prevent accumulation of vapors. Ground/bond container and receiving equipment. 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

Storage conditions: Keep container tightly closed. Store in sealed containers under a dry inert atmosphere of nitrogen or argon. Keep in a cool place.


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. Contact lenses should not be worn.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. 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

Physical state: Liquid

Appearance: Clear liquid.

Molecular mass: 241.41 g/mol

Color: Straw.

Odor: Acrid. Amine.

Odor threshold: No data available

Refractive index: No data available

pH: No data available

Relative evaporation rate (butyl acetate=1): No data available

Melting point: No data available

Freezing point: < 0 °C

Boiling point: 98 - 99 °C @ 0.25 mm Hg

Flash point: 75 °C

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Flammability (solid, gas): Combustible liquid

Vapor pressure: < 0.1 mm Hg @ 25°C

Relative vapor density at 20 °C: > 1
### 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.

#### 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>Effect</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</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>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
<tr>
<td>Symptoms/injuries after inhalation</td>
<td>May cause irritation to the respiratory tract.</td>
</tr>
<tr>
<td>Symptoms/injuries after skin contact</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>Symptoms/injuries after eye contact</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>Symptoms/injuries after ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
<tr>
<td>Reason for classification</td>
<td>Expert judgment</td>
</tr>
</tbody>
</table>

### 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 ozone layer: No additional information available
Effect on the global warming: No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations: Do not dispose of waste into sewer.
Waste 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

DOT NA no.: NA1993

14.2. UN proper shipping name

Proper Shipping Name (DOT): Combustible liquid, n.o.s. ((DIPHENYL)METHYL(DIMETHYLAMINO)SILANE)
Department of Transportation (DOT) Hazard Classes: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
DOT Symbols: D - Proper shipping name for domestic use only, or to and from Canada,G - Identifies PSN requiring a technical name
Packing group (DOT): III - Minor Danger
DOT Packaging Exceptions (49 CFR 173.xxx): 150
DOT Packaging Non Bulk (49 CFR 173.xxx): 203
DOT Packaging Bulk (49 CFR 173.xxx): 241

14.3. Additional information

Other information: No supplementary information available.

Transport by sea

DOT Vessel Stowage Location: A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 220 L

SECTION 15: Regulatory information

15.1. US Federal regulations

(DIPHENYL)METHYL(DIMETHYLAMINO)SILANE (68733-63-1)

TSCA Exemption/Exclusion: CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States.

(Diphenyl)methyl(dimethylamino)silane (68733-63-1)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

No additional information available

15.3. US State regulations

(DIPHENYL)METHYL(DIMETHYLAMINO)SILANE (68733-63-1)

<table>
<thead>
<tr>
<th>State</th>
<th>Proposition 65</th>
<th>Carcinogens List</th>
<th>Developmental Toxicity</th>
<th>Reproductive Toxicity - Female</th>
<th>Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

SOS ID: SID4552.5
(DIPHENYL)METHYL(DIMETHYLAMINO)SILANE
Safety Data Sheet

(DIPHENYL)METHYL(DIMETHYLAMINO)SILANE

<table>
<thead>
<tr>
<th>Toxicity - Male</th>
<th>Toxicity - Female</th>
<th>Reproductive Toxicity - Male</th>
<th>Reproductive Toxicity - Female</th>
<th>No significance risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California - Proposition 65 - Carcinogens List</td>
<td>U.S. - California - Proposition 65 - Developmental Toxicity</td>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</td>
<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</td>
<td>No significance risk level (NSRL)</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

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.

Full text of H-phrases:

- **Eye Irrit. 2A**: Serious eye damage/eye irritation Category 2A
- **Flam. Liq. 4**: Flammable liquids Category 4
- **Skin Irrit. 2**: Skin corrosion/irritation Category 2
- **H227**: Combustible liquid
- **H315**: Causes skin irritation
- **H319**: Causes serious eye irritation

HMIS III Rating

- **Health**: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
- **Flammability**: 2 Moderate Hazard
- **Physical**: 1 Slight Hazard

Prepared by safety and environmental affairs.

Date of issue: 09/10/2015  Version: 1.0

SDS US (GHS HazCom 2012) - Custom

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

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