SECTION 1: Identification

1.1. Product identifier

Product name: N,O-BIS(TRIMETHYLSILYL)ACETAMIDE
Product code: SIB1846.0
Physical state: Liquid
Formula: C8H21NOSi2

1.2. Recommended use of the chemical and restrictions on use

Recommended use: Chemical intermediate
For research and industrial 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: Hazard(s) Identification

2.1. Classification of the substance or mixture

GHS-US classification
Flammable liquids Category 3  H226
Acute toxicity (oral) Category 4  H302
Skin corrosion/irritation Category 1B  H314
Serious eye damage/eye irritation Category 1  H318

Full text of H statements: see section 16

2.2. Label elements

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

Signal word (GHS-US): Danger
Hazard statements (GHS-US):
H226 - Flammable liquid and vapor
H302 - Harmful if swallowed
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
P310 - Immediately call a doctor
P210 - Keep away from heat, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe vapors
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P301+P330+P331 - If swallowed: Rinse mouth. Do NOT induce vomiting
P301+P312 - If swallowed: Call a doctor if you feel unwell
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing, rinse
N,O-BIS(TRIMETHYLSILYL)ACETAMIDE
Safety Data Sheet

2.3. Hazards not otherwise classified (HNOC)
No additional information available

2.4. Unknown acute toxicity (GHS US)
No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances
Substance type: Mono-constituent
Name: N,O-BIS(TRIMETHYLSILYL)ACETAMIDE
CAS No: 10416-59-8

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
</table>
| N,O-Bis(trimethylsilyl)acetamide | (CAS No) 10416-59-8 | 95 - 100 | Flam. Liq. 3, H226  
Acute Tox. 4 (Oral), H302  
Skin Corr. 1B, H314  
Eye Dam. 1, H318 |

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures
Not applicable

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. If you feel unwell, seek medical advice.

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. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries: Causes severe skin burns and eye damage.
Symptoms/injuries after inhalation: May cause irritation to the respiratory tract.
Symptoms/injuries after skin contact: Causes (severe) skin burns.
Symptoms/injuries after eye contact: Causes serious eye damage.
Symptoms/injuries after ingestion: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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: Flammable liquid and vapor. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.
Explosion hazard: May form flammable/explosive vapor-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 vapor and mist.
N,O-BIS(TRIMETHYLSILYL)ACETAMIDE
Safety Data Sheet

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Eliminate 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.

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: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and receiving equipment. Provide good ventilation in process area to prevent accumulation of vapors. 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: 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.

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: 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: 203.43 g/mol
Color: Straw.
Odor: Mild.
Odor threshold: No data available
N,O-BIS(TRIMETHYLSILYL)ACETAMIDE
Safety Data Sheet

Refractive index : 1.418
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : -24 °C
Boiling point : 71 - 73 °C @ 35 mm Hg
Flash point : 42 °C
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Flammable liquid and vapor
Vapor pressure : 12 mm Hg @ 45°C
Relative vapor density at 20 °C : > 1
Relative density : 0.832
VOC content : < 3 %
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
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 nitrogen.

10.3. Possibility of hazardous reactions
Reacts with water and moisture in air liberating hexamethyldisiloxane (flammable) and acetamide.

10.4. Conditions to avoid
Heat. Open flame. Sparks. Degrades at temperatures above 80°C.

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Oral: Harmful if swallowed.

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,O-BIS(TRIMETHYLSILYL)ACETAMIDE (10416-59-8)</td>
<td></td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1580.000 mg/kg body weight</td>
</tr>
<tr>
<td>N,O-Bis(trimethylsilyl)acetamide (10416-59-8)</td>
<td></td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>1580 mg/kg</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1580.000 mg/kg body weight</td>
</tr>
</tbody>
</table>

- 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

A related hydrolysis product, acetamide, is an experimental carcinogen, neoplasitgen and teratogen.
None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.
**N,O-BIS(TRIMETHYLSILYL)ACETAMIDE**

**Safety Data Sheet**

<table>
<thead>
<tr>
<th>Reproductive toxicity</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<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 (severe) skin burns.</td>
</tr>
<tr>
<td>Symptoms/injuries after eye contact</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>Symptoms/injuries after ingestion</td>
<td>Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.</td>
</tr>
</tbody>
</table>

**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 ozone layer: No additional information available

Effect on the global warming: No known effects from this product.

GWPmix comment: No known effects from this product.

### SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

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

Waste 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 vapors are flammable.

Ecology - waste materials: Avoid release to the environment.

### SECTION 14: Transport information

14.1. **UN number**

<table>
<thead>
<tr>
<th>UN-No.(DOT)</th>
<th>2920</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT NA no.</td>
<td>UN2920</td>
</tr>
</tbody>
</table>

14.2. **UN proper shipping name**

| Transport document description | UN2920 Corrosive liquids, flammable, n.o.s. (N,O-BIS(TRIMETHYLSILYL)ACETAMIDE), 8 (3), II |
| Proper Shipping Name (DOT) | Corrosive liquids, flammable, n.o.s. (N,O-BIS(TRIMETHYLSILYL)ACETAMIDE) |
| Class (DOT) | 8 - Class 8 - Corrosive material 49 CFR 173.136 |
| Packing group (DOT) | II - Medium Danger |
| Hazard labels (DOT) | 8 - Corrosive 3 - Flammable liquid |

DOT Packaging Non Bulk (49 CFR 173.xxx): 202

DOT Packaging Bulk (49 CFR 173.xxx): 243

DOT Packaging Exceptions (49 CFR 173.xxx): None
N,O-BIS(TRIMETHYLSILYL)ACETAMIDE
Safety Data Sheet

<table>
<thead>
<tr>
<th>DOT Symbols</th>
<th>G - Identifies PSN requiring a technical name</th>
</tr>
</thead>
</table>

### 14.3. Additional information

<table>
<thead>
<tr>
<th>Emergency Response Guide (ERG) Number</th>
<th>132</th>
</tr>
</thead>
</table>

Other information: No supplementary information available.

**Transport by sea**

<table>
<thead>
<tr>
<th>DOT Vessel Stowage Location</th>
<th>C - The material must be stowed “on deck only” on a cargo vessel and on a passenger vessel</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Vessel Stowage Other</td>
<td>25 - Shade from radiant heat, 40 - Stow “clear of living quarters”</td>
</tr>
</tbody>
</table>

**Air transport**

| DOT Quantity Limitations Passenger aircraft/rail | 1 L (49 CFR 173.27) |
| DOT Quantity Limitations Cargo aircraft only    | 30 L (49 CFR 175.75) |

**SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

**N,O-Bis(trimethylsilyl)acetamide (10416-59-8)**

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

#### 15.2. International regulations

**CANADA**

**N,O-Bis(trimethylsilyl)acetamide (10416-59-8)**

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

**EU-Regulations**

**N,O-Bis(trimethylsilyl)acetamide (10416-59-8)**

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

**National regulations**

**N,O-Bis(trimethylsilyl)acetamide (10416-59-8)**

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

#### 15.3. US State regulations

No additional information available

### SECTION 16: Other information

**Full text of H-phrases:**

<table>
<thead>
<tr>
<th>H226</th>
<th>Flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</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>

**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.

**HMIS III Rating**

Health: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given.
**N,O-BIS(TRIMETHYLSILYL)ACETAMIDE**  
Safety Data Sheet

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability</strong></td>
<td>2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II &amp; IIIA)</td>
</tr>
<tr>
<td><strong>Physical</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

Prepared by safety and environmental affairs.

Date of issue: 12/31/2014  Revision date: 02/06/2017  Version: 2.0

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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