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

### 1.1. Product identifier

- **Product form:** Substance
- **Physical state:** Liquid
- **Substance name:** 1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90%
- **Product code:** SIB1857.9
- **Formula:** C₈H₂₀Si₂
- **Chemical family:** ORGANOSILANE

### 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. 3 H226

**Full text of H-phrases:** see section 16

### 2.2. Label elements

**GHS-US labeling**

- **Hazard pictograms (GHS-US):**
  - [Image of hazard symbol]
  - GHS02

**Signal word (GHS-US):** Warning

**Hazard statements (GHS-US):**

- H226 - Flammable liquid and vapor

**Precautionary statements (GHS-US):**

- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- 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
- P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- 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

- No additional information available

### 2.4. Unknown acute toxicity (GHS US)

- No data available

**SECTION 3: Composition/information on ingredients**

### 3.1. Substance

- **Substance type:** Mono-constituent
1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90%
Safety Data Sheet

Name: 1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90%
CAS No: 1473-61-6/18178-60-4

<table>
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<th>Classification (GHS-US)</th>
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<td>(CAS No) 1473-61-6/18178-60-4</td>
<td>90 - 100</td>
<td>Flam. Liq. 3, H226</td>
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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: May cause skin irritation.
Symptoms/injuries after eye contact: May cause eye irritation.
Symptoms/injuries after ingestion: No information available.

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 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.
1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90%
Safety Data Sheet

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. Take precautionary measures against static discharge. 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

Technical measures: Use explosion-proof electrical equipment.

Storage conditions: Keep container tightly closed. Keep in a cool place.

Incompatible materials: 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. 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 organic vapor (black 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: 172.42 g/mol

Color: No data available

Odor: No data available

Odor threshold: No data available

Refractive index: 1.4374

pH: No data available

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

Melting point: No data available

Freezing point: < 0 °C

Boiling point: 156 - 158 °C

Flash point: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Flammability (solid, gas): Flammable liquid and vapor

Vapor pressure: No data available

Relative vapor density at 20 °C: > 1

Relative density: 0.759

Solubility: Insoluble in 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
1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90%
Safety Data Sheet

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 a dry inert atmosphere.

10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid
Heat. Open flame. Sparks.

10.5. Incompatible materials
Oxidizing agent.

10.6. Hazardous decomposition products
Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| Acute toxicity   : Not classified |
| Skin corrosion/irritation : Not classified |
| Serious eye damage/irritation : Not classified |
| Respiratory or skin sensitization : Not classified |
| Germ cell mutagenicity : Not classified |
| Carcinogenicity : Not classified |
| Reproductive toxicity : Not classified |
| Specific target organ toxicity (single exposure) : Not classified |
| Specific target organ toxicity (repeated exposure) : Not classified |
| Aspiration hazard : Not classified |

Symptoms/injuries after inhalation : May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : May cause eye irritation.

Symptoms/injuries after ingestion : No information available.

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.
1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90%
Safety Data Sheet

SECTION 14: Transport information

14.1. UN number
UN-No.(DOT) : 1993
DOT NA no. : UN1993

14.2. UN proper shipping name
Proper Shipping Name (DOT) : Flammable liquids, n.o.s.
(1,2-BIS(TRIMETHYLSILYL)ETHYLENE)
Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT) : 3 - Flammable liquid

DOT Symbols : 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) : 242

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
1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90% (1473-61-6/18178-60-4)
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.

1,2-Bis(trimethylsilyl)ethylene (1473-61-6/18178-60-4)
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
1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90% (1473-61-6/18178-60-4)

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1,2-Bis(trimethylsilyl)ethylene (1473-61-6/18178-60-4)

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1,2-BIS(TRIMETHYLSILYL)ETHYLENE, 90%
Safety Data Sheet

1,2-Bis(trimethylsilyl)ethylene (1473-61-6/18178-60-4)

No
No
No
No

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:

---
Flam. Liq. 3 Flammable liquids Category 3
H226 Flammable liquid and vapor

HMIS III Rating
Health 2 Moderate Hazard - Temporary or minor injury may occur
Flammability 3 Serious Hazard
Physical 0 Minimal Hazard

Prepared by safety and environmental affairs.

Date of issue: 09/03/2015  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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