## SECTION 1: Identification

### 1.1. Identification

- **Product name**: VINYLTRIETHYLGERMANE, 95%
- **Product code**: GEV9200
- **Product form**: Substance
- **Physical state**: Liquid
- **Formula**: C₈H₁₈Ge
- **Synonyms**: TRIETHYLVINYLGERMANE, ETHENYLTRIETHYLGERMANE, TRIETHYL(ETHENYL)GERMANE
- **Chemical family**: ORGANOGERMANE

### 1.2. Recommended use and restrictions on use

- **Recommended use**: Chemical intermediate

### 1.3. Supplier

**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 - Flammable liquid and vapor

### 2.2. GHS Label elements, including precautionary statements

- **GHS US labeling**  
  - **Hazard pictograms (GHS US)**: ![Flammable](image)
  - **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. Hazards not otherwise classified (HNOC)

- No additional information available

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

- Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

- **Substance type**: Mono-constituent
**VINYLTRIETHYLGERMANE, 95%**
Safety Data Sheet

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>VINYLTRIETHYLGERMANE, 95%</td>
<td>(CAS-No.) 6207-41-6</td>
<td>95 - 100</td>
<td>Flam. Liq. 3, H226</td>
</tr>
</tbody>
</table>

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

### 3.2. Mixtures
Not applicable

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

<table>
<thead>
<tr>
<th>First-aid measures general</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-aid measures after inhalation</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.</td>
</tr>
<tr>
<td>First-aid measures after skin contact</td>
<td>Wash with plenty of soap and water. Get medical advice/attention.</td>
</tr>
<tr>
<td>First-aid measures after eye contact</td>
<td>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.</td>
</tr>
<tr>
<td>First-aid measures after ingestion</td>
<td>Never give anything by mouth to an unconscious person. Get medical advice/attention.</td>
</tr>
</tbody>
</table>

#### 4.2. Most important symptoms and effects (acute and delayed)

| Symptoms/effects after inhalation               | May cause irritation to the respiratory tract.                                                                                                           |
| Symptoms/effects after skin contact             | May cause skin irritation.                                                                                                                                |
| Symptoms/effects after eye contact              | May cause eye irritation.                                                                                                                                   |
| Symptoms/effects after ingestion                 | No information available.                                                                                                                                    |

#### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>None known.</td>
</tr>
</tbody>
</table>

#### 5.2. Specific hazards arising from the chemical

<table>
<thead>
<tr>
<th>Fire hazard</th>
<th>Flammable liquid and vapor. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion hazard</td>
<td>May form flammable/explosive vapor-air mixture.</td>
</tr>
</tbody>
</table>

#### 5.3. Special protective equipment and precautions for fire-fighters

| 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. |

### 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. 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: Handle empty containers with care because residual vapors are flammable. 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. Provide good ventilation in process area to prevent accumulation of vapors. Ground/bond container and receiving equipment. 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.


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. Appropriate engineering controls

Appropriate engineering controls: Provide local exhaust or general room ventilation.

8.3. Individual protection measures/Personal protective equipment

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: 186.82 g/mol
Color: Straw.
Odor: Mild.
Odor threshold: No data available
Refractive index: 1.4501
pH: No data available
Relative evaporation rate (butyl acetate=1): ~ 1
Melting point: No data available
Freezing point: < 0 °C
Boiling point: 152 °C
Flash point: 32 °C
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): Flammable liquid and vapor
## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable in sealed containers.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Oxidizers, Peroxides. Strong acids.

### 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

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

#### 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/effects after inhalation

May cause irritation to the respiratory tract.

#### Symptoms/effects after skin contact

May cause skin irritation.

#### Symptoms/effects after eye contact

May cause eye irritation.

#### Symptoms/effects 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 the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods
Sewage disposal recommendations : Do not dispose of waste into sewer.
Product/Packaging disposal recommendations : Dispose of 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
UN-No. (DOT) : 1993
DOT NA no. : UN1993

14.2. UN proper shipping name
Transport document description : UN1993 Flammable liquids, n.o.s. (VINYLTRIETHYLGERMANE), 3, III
Proper Shipping Name (DOT) : Flammable liquids, n.o.s. (VINYLTRIETHYLGERMANE)
Class (DOT) : 3 - Class 3: Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Symbols : G - Identifies PSN requiring a technical name

14.3. Additional information
Emergency Response Guide (ERG) Number : 128
Other information : IMO IMDG code: 3.2.

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
VINYLTRIETHYLGERMANE, 95% (6207-41-6)

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.
## 15.2. International regulations

**CANADA**
No additional information available

**EU-Regulations**
No additional information available

**National regulations**
No additional information available

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H226</th>
<th>Flammable liquid and vapor</th>
</tr>
</thead>
</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; APF: Assigned Protection Factor.

**Hazard Rating**

**Health**

2 Moderate Hazard - Temporary or minor injury may occur

**Flammability**

4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

**Physical**

0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Prepared by safety and environmental affairs.

Date of issue: 05/04/2017       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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