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

1.1. Product identifier
Product form : Substance
Physical state : Solid
Substance name : TRIETHYLAMMONIUM BENZYL(BIS(CATECHOLATO))SILICATE
Product code : SIT8199.0
Formula : C25H31NO4Si
Chemical family : SILICATE

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@gelestde.com - www.gelestde.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]
Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 2
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms (CLP) : GHS07
Signal word (CLP) : Warning
Hazard statements (CLP) : H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P264 - Wash hands thoroughly after handling.
P302+P352 - IF ON SKIN: Wash with plenty of water.
TRIETHYLAMMONIUM BENZYLBIS(CATECHOLATO)SILICATE
Safety Data Sheet

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.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

<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>
</table>
| TRIETHYLAMMONIUM BENZYLBIS(CATECHOLATO)SILICATE (CAS-No.) 1843232-61-0 | 95 - 100 | Skin Irrit. 2, H315
| | | Eye Irrit. 2, H319 |

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

Symptoms/effects after skin contact: Causes skin irritation.

Symptoms/effects after eye contact: Causes serious eye irritation.

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: Do not use straight streams.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

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 contact with skin and eyes. Do not breathe dust.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Wear protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.
TRIETHYLAMMONIUM BENZYLBIS(CATECHOLATO)SILICATE
Safety Data Sheet

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 product 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: Sweep or shovel spills into appropriate container for disposal.

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
Precautions for safe handling: Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.
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
Storage conditions: Keep container tightly closed.
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 dust and mist (orange cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: Solid
Appearance: Powder.
Molecular mass: 335.07 g/mol
Colour: Light pink.
Odour: Ammonia.
Odour threshold: No data available
Refractive index: No additional information available
pH: No data available
## TRIETHYLAMMONIUM BENZYLBI(CATECHOLATO)SILICATE

### Safety Data Sheet

**Relative evaporation rate (butylacetate=1)**: No data available  
**Melting point**: 118 °C  
**Freezing point**: No data available  
**Boiling point**: No data available  
**Flash point**: No data available  
**Auto-ignition temperature**: No data available  
**Decomposition temperature**: No data available  
**Flammability (solid, gas)**: No data available  
**Vapour pressure**: No data available  
**Relative vapour density at 20 °C**: No data available  
**Relative density**: No data available  
**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  
**Oxidising properties**: No data available  
**Explosive 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.

#### 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. Silicon oxides.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td></td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td></td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
<td>None of the components in this product at concentrations &gt;0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Symptoms/effects after inhalation</td>
<td></td>
<td>May cause irritation to the respiratory tract.</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
<td></td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Symptoms/effects after eye contact</td>
<td></td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Symptoms/effects after ingestion</td>
<td></td>
<td>May be harmful if swallowed.</td>
</tr>
</tbody>
</table>

Print date: 28/08/2019  
SDS ID: SIT8199.0
SECTION 12: Ecological information

12.1. Toxicity
Acute aquatic toxicity: Not classified
Chronic aquatic toxicity: 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
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.
Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number
In accordance with ADR / RID / IMDG / IATA / ADN

14.2. UN proper shipping name
Proper Shipping Name (ADR): Not applicable
Proper Shipping Name (IMDG): Not applicable
Proper Shipping Name (IATA): Not applicable
Proper Shipping Name (ADN): Not applicable
Proper Shipping Name (RID): Not applicable

14.3. Transport hazard class(es)
ADR
Transport hazard class(es) (ADR): Not applicable

IMDG
Transport hazard class(es) (IMDG): Not applicable

IATA
Transport hazard class(es) (IATA): Not applicable

ADN
Transport hazard class(es) (ADN): Not applicable

RID
Transport hazard class(es) (RID): Not applicable

14.4. Packing group
Packing group (ADR): Not applicable
Packing group (IMDG): Not applicable
TRIETHYLAMMONIUM BENZYLIS(CATECHOLATO)SILICATE
Safety Data Sheet

<table>
<thead>
<tr>
<th>Packing group (IATA)</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group (ADN)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing group (RID)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

14.5. Environmental hazards

<table>
<thead>
<tr>
<th>Dangerous for the environment</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine pollutant</td>
<td>No</td>
</tr>
<tr>
<td>Other information</td>
<td>No supplementary information available</td>
</tr>
</tbody>
</table>

14.6. Special precautions for user

- **Overland transport**
  Not applicable

- **Transport by sea**
  Not applicable

- **Air transport**
  Not applicable

- **Inland waterway transport**
  Not applicable

- **Rail transport**
  Not applicable

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

No REACH Annex XVII restrictions
TRIETHYLAMMONIUM BENZYLIS(CATECHOLATO)SILICATE is not on the REACH Candidate List
TRIETHYLAMMONIUM BENZYLIS(CATECHOLATO)SILICATE is not on the REACH Annex XIV List
TRIETHYLAMMONIUM BENZYLIS(CATECHOLATO)SILICATE 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**
12th Ordinance Implementing the Federal Immission Control Act - 12.BlmSchV
Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

**Netherlands**
SZW-list van kankerverwekkende stoffen
The substance is not listed

SZW-list van mutagene stoffen
The substance is not listed

NIET-limitele lijst van voor de voortplanting giftige stoffen – Borstvoeding
The substance is not listed

NIET-limitele lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid
The substance is not listed

NIET-limitele lijst van voor de voortplanting giftige stoffen – Ontwikkeling
The substance is not listed

15.2. Chemical safety assessment

No additional information available

**SECTION 16: Other information**

Abbreviations and acronyms:
TRIETHYLAMMONIUM BENZYLIS(CATECHOLATO)SILICATE  
Safety Data Sheet

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 Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |

SDS EU (REACH Annex II) - Custom

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