# SECTION 1: Identification

### 1.1. Identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>DIISOPROPYLAMMONIUM 3-PHENYLAMINOPROPYL BIS(CATECHOLATO)SILICATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>SID3533.7</td>
</tr>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Formula</td>
<td>C27H36N2O4Si</td>
</tr>
<tr>
<td>Chemical family</td>
<td>SILICATE</td>
</tr>
</tbody>
</table>

### 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**

<table>
<thead>
<tr>
<th>Skin corrosion/irritation Category 2</th>
<th>H315 - Causes skin irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation Category 2</td>
<td>H319 - Causes serious eye irritation</td>
</tr>
<tr>
<td>Carcinogenicity Category 2</td>
<td>H351 - Suspected of causing cancer</td>
</tr>
</tbody>
</table>

Full text of H statements: see section 16

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

**GHS US labeling**

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

**Precautionary statements (GHS US):**

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P264 - Wash hands thoroughly after handling.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P332 - IF SKIN IRRITATION occurs: Get medical attention.
- P337+P313 - If eye irritation persists: Get medical advice/attention.
- P362+P364 - Take off contaminated clothing and wash it before reuse.
- P405 - Store locked up.
- 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
DIISOPROPYLAMMONIUM 3-PHENYLAMINOPROPYL BIS(CATECHOLATO)SILICATE
Safety Data Sheet

SECTION 3: Composition/Information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIISOPROPYLAMMONIUM 3-PHENYLAMINOPROPYL BIS(CATECHOLATO)SILICATE (CAS-No.) 1844886-91-4</td>
<td>95 - 100</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2A, H319</td>
<td></td>
</tr>
<tr>
<td>1,4-dioxane (CAS-No.) 123-91-1</td>
<td>0 - 5</td>
<td>Flam. Liq. 2, H225 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335</td>
<td></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

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 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 (acute and delayed)

Symptoms/effects: Suspected of causing cancer.
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. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


Unsuitable extinguishing media: Do not use straight streams.

5.2. Specific hazards arising from the chemical

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

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 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.

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.

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. Store locked up.

Incompatible materials: Oxidizing agent.

Storage area: Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>1,4-dioxane (123-91-1)</th>
<th>ACGIH</th>
<th>ACGIH TWA (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20 ppm (skin)</td>
<td></td>
</tr>
</tbody>
</table>

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 dust and mist (orange cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>480.68 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>Off-white.</td>
</tr>
<tr>
<td>Odor</td>
<td>Ammonia.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>137 - 142 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
</tbody>
</table>
DIISOPROPYLAMMONIUM 3-PHENYLAMINO PROPYL BIS(CATECHOLATO) SILICATE
Safety Data Sheet

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
Vapor pressure: No data available
Relative vapor density at 20 °C: No data available
Relative density: No data available
Solubility: 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
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.

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
Acute toxicity: Not classified
Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Suspected of causing cancer.
This product contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH classification.

1,4-dioxane (123-91-1)

<table>
<thead>
<tr>
<th>IARC group</th>
<th>National Toxicology Program (NTP) Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2B - Possibly carcinogenic to humans</td>
<td>3 - Reasonably anticipated to be Human Carcinogen</td>
</tr>
</tbody>
</table>

Reproductive toxicity: Not classified
STOT-single exposure: Not classified

STOT-repeated exposure: Not classified
Aspiration hazard: Not classified
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.
DIISOPROPYLAMMONIUM 3-PHENYLAMINOPROPYL BIS(CATECHOLATO)SILICATE
Safety Data Sheet

Symptoms/effects after ingestion : May be harmful if swallowed.

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 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
Not regulated for transport.

14.2. UN proper shipping name
Not applicable

14.3. Additional information
Other information : No supplementary information available.

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information
15.1. US Federal regulations

DIISOPROPYLAMMONIUM 3-PHENYLAMINOPROPYL BIS(CATECHOLATO)SILICATE (1844886-91-4)

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.

Diisopropylammonium 3-phenylaminopropyl bis(catecholato)silicate (1844886-91-4)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

1,4-dioxane (123-91-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313
CERCLA RQ 100 lb
SARA Section 313 - Emission Reporting 1 %

15.2. International regulations
CANADA
No additional information available
DIISOPROPYLAMMONIUM 3-PHENYLAMINOPROPYL BIS(CATECHOLATO)SILICATE
Safety Data Sheet

1,4-dioxane (123-91-1)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

1,4-dioxane (123-91-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

1,4-dioxane (123-91-1)
Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on EPA Hazardous Air Pollutant (HAPS)
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 INSO (Mexican National Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PCCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

WARNING: This product can expose you to 1,4-dioxane, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

1,4-dioxane (123-91-1)

<table>
<thead>
<tr>
<th>U.S.</th>
<th>U.S.</th>
<th>U.S.</th>
<th>No significant risk level (NSRL)</th>
<th>Maximum allowable dose level (MADL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>California - Proposition 65 - Carcinogens List</td>
<td>California - Proposition 65 - Developmental Toxicity</td>
<td>California - Proposition 65 - Reproductive Toxicity - Female</td>
<td>California - Proposition 65 - Reproductive Toxicity - Male</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>30 µg/day</td>
</tr>
</tbody>
</table>

1,4-dioxane (123-91-1)

<table>
<thead>
<tr>
<th>U.S.</th>
<th>Right To Know List</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - Massachusetts</td>
<td>Right To Know List</td>
</tr>
<tr>
<td>U.S. - New Jersey</td>
<td>Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania</td>
<td>RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

SECTION 16: Other information

Full text of H-phrases:

| H225 | Causes skin irritation |
| H315 | Caused by skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H351 | Suspected of causing cancer |

Abbreviations and acronyms:

| 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: 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: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical: 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.
DIISOPROPYLAMMONIUM 3-PHENYLAMINOPROPYL BIS(CATECHOLATO)SILICATE
Safety Data Sheet

Prepared by safety and environmental affairs.
Date of issue: 05/17/2019       Revision date: 08/28/2019       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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