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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Product name</td>
<td>N-(TRIMETHOXYSLYLPROPYL)ETHYLENEDIAMINETRIACETATE, TRISODIUM SALT, 35% in water</td>
</tr>
<tr>
<td>Product code</td>
<td>SIT8402.0</td>
</tr>
<tr>
<td>Formula</td>
<td>C14H25N2Na3O9Si</td>
</tr>
<tr>
<td>Synonyms</td>
<td>TRIHYDROXYSILYLPROPYL EDTA, SODIUM SALT, N-(TRIMETHOXYSLYLPROPYL)ETHYLENEDIAMINETRIACETATE, TRISODIUM SALT, GLYCINE, N-[2-[BIS(CARBOXYMETHYL)-AMINOETHYL]-N-[3-(TRIHYDROXYSILYL)PROPYL]-, SODIUM SALT</td>
</tr>
</tbody>
</table>

Chemical family: SILICATE SOLUTION

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 - 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]

<table>
<thead>
<tr>
<th>Classification</th>
<th>H315</th>
<th>H319</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation, Category 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/eye irritation, Category 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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]

<table>
<thead>
<tr>
<th>Hazard pictograms (CLP)</th>
<th>!</th>
<th>GHS07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word (CLP)</td>
<td>Warning</td>
<td></td>
</tr>
</tbody>
</table>
N-(TRIMETHOXYSILYLPROPYL)ETHYLENEDIAMINETRIACETATE, TRISODIUM SALT, 35% in water
Safety Data Sheet

Hazard statements (CLP) : H315 - Causes skin irritation. H319 - Causes serious eye irritation.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<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>
<tbody>
<tr>
<td>Water</td>
<td>(CAS-No.) 7732-18-5 (EC-No.) 231-791-2</td>
<td>50 - 60</td>
<td>Not classified</td>
</tr>
<tr>
<td>N-(Trimethoxysilylpropyl)ethylenediaminetriacetate, trisodium salt</td>
<td>(CAS-No.) 128850-89-5/1138444-28-6</td>
<td>32 - 38</td>
<td>Not classified</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>(CAS-No.) 7647-14-5 (EC-No.) 231-598-3</td>
<td>8 - 12</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

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. Overexposure may cause: Cough. Headache. Nausea.
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
Suitable extinguishing media : Not combustible.
Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture
Fire hazard : None known.
Explosion hazard : None known.
N-(TRIMETHOXYSILYLPROPYL)ETHYLENEDIAMINETRIACETATE, TRISODIUM SALT, 35% in water
Safety Data Sheet

5.3. Advice for firefighters
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 vapour and mist.

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 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
No additional information available

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapour and mist. Provide good ventilation in process area to prevent formation of vapour.
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: None known.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
<table>
<thead>
<tr>
<th>Sodium chloride (7647-14-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latvia</td>
</tr>
<tr>
<td>Lithuania</td>
</tr>
</tbody>
</table>

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

Personal protective equipment:
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 combination organic vapor - amine gas (brown cartridge) respirator.

SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear solution</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>462.42 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No additional information available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt; 0 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100 °C - initial (water)</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 1 mm Hg @ 20°C</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.26</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Carbon dioxide. Silicon dioxide. Sodium hydroxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water (7732-18-5)</td>
<td>LD50 oral rat &gt; 90 ml/kg</td>
</tr>
</tbody>
</table>

Water (7732-18-5)
N-(TRIMETHOXYSILYLPROPYL)ETHYLENEDIAMINETRIACETATE, TRISODIUM SALT, 35% in water
Safety Data Sheet

**Sodium chloride (7647-14-5)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>3 g/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 42 g/m³ (Exposure time: 1 h)</td>
</tr>
<tr>
<td>ATE CLP (oral)</td>
<td>3000 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: 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
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified

**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**

**Sodium chloride (7647-14-5)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>5560 - 6080 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>340.7 - 469.2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])</td>
</tr>
</tbody>
</table>

**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**
No additional information available

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Sewage disposal recommendations: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations: Landfill. 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

**14.1. UN number**
UN-No. (ADR): Not applicable
N-(TRIMETHOXYSILYLPROPYL)ETHYLENEDIAMINETRIACETATE, TRISODIUM SALT, 35% in water
Safety Data Sheet

| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |
| UN-No. (ADN) | : Not applicable |
| UN-No. (RID) | : Not applicable |

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)**

| Transport hazard class(es) (ADR) | : Not applicable |
| Transport hazard class(es) (IMDG) | : Not applicable |
| Transport hazard class(es) (IATA) | : Not applicable |
| Transport hazard class(es) (ADN) | : Not applicable |
| Transport hazard class(es) (RID) | : Not applicable |

14.4. **Packing group**

| Packing group (ADR) | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |
| Packing group (ADN) | : Not applicable |
| Packing group (RID) | : Not applicable |

14.5. **Environmental hazards**

| Dangerous for the environment | : No |
| Marine pollutant | : No |
| Other information | : No supplementary information available |

14.6. **Special precautions for user**

- **Overland transport**
  No data available

- **Transport by sea**
  No data available

- **Air transport**
  No data available

- **Inland waterway transport**
  No data available

- **Rail transport**
  No data available

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

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany
Reference to AwSV
Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV
Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-list van kankerverwekkende stoffen
None of the components are listed
SZW-list van mutagene stoffen
None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giflige stoffen – Borstvoeding
None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giflige stoffen – Vruchtbaarheid
None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giflige stoffen – Ontwikkeling
None of the components are listed

15.2. Chemical safety assessment

No additional information available

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; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor

Other information
Prepared by safety and environmental affairs.

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.

© 2019 Gelest Inc. Morrisville, PA 19067
NOTICE OF TSCA USE RESTRICTIONS AND REQUIRED CONTROLS FOR SIT8402.0
N-(TRIMETHOXYSYLPROPYL)ETHYLENEDIAMINETRIACETATE, TRISODIUM SALT, 35% in water

Dear Customer:

The chemical product purchased, SIT8402.0 has been granted a Low Volume Exemption by the U.S. Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA) regulations (40 CFR 723.50). Any manufacturer or processor who intends to use this chemical substance for commercial purposes must comply with the specific use restrictions and controls specified as follows:

USE OF THIS CHEMICAL SUBSTANCE IS RESTRICTED TO: Modification of inorganic surface

 CONTROLS: Workers must use personal protection equipment to limit dermal and inhalation exposures as described in Section 8: Exposure Controls/Personal Protection of the Safety Data Sheet (SDS). These exposure controls include:

Hand protection: Impervious gloves (neoprene or nitrile rubber gloves)
Eye Protection: Chemical goggles. Contact lenses should not be worn.
Skin and Body Protection: Wear suitable protective clothing.

WASTE DISPOSAL: Customer must rinse containers with solvent prior to disposal. Residues and wash solvents must be containerized for off-site disposal by incineration at licensed waste disposal facility. Do not release to publicly owned treatment works (POTW) via sewer or to surface waters.

If you have questions or need more information related to allowable use of this substance, contact Gelest Regulatory Affairs at 215-547-1015.

Best Regards,

Gelest, Inc.
Regulatory Affairs Department