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

1.1. Product identifier
- Product form: Substance
- Physical state: Liquid
- Substance name: ACETOXYTRIMETHYLSILANE
- Product code: SIA0110.0
- Formula: C5H12O2Si
- Synonyms: O-TRIMETHYLSILYL ACETATE
- Chemical family: ORGANOSILANE

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]
  - Flammable liquids, Category 2: H225
  - Skin corrosion/irritation, Category 1B: H314
  - Serious eye damage/eye irritation, Category 1: H318
  - Specific target organ toxicity — Single exposure, Category 3: H335
  - Respiratory tract irritation: 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)
  - Signal word (CLP): Danger
ACETOXYTRIMETHYLSILANE
Safety Data Sheet

Hazard statements (CLP)
H225 - Highly flammable liquid and vapour.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.

Precautionary statements (CLP)
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 - Ground/bond container and receiving equipment.
P260 - Do not breathe vapours.
P264 - Wash hands thoroughly after handling.
P310 - Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Substance type</th>
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<th>CAS-No.</th>
<th>EC-No.</th>
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Specific concentration limits:

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<th>Specific concentration limits</th>
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<td>(EC-No.) 200-580-7</td>
<td>(10 &lt;=C &lt; 25) Skin Irr. 2, H315</td>
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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 immediate 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 immediate 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: Causes severe skin burns and eye damage.
Symptoms/effects after skin contact: Causes (severe) skin burns.
Symptoms/effects after eye contact: Causes serious eye damage.
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


5.2. Special hazards arising from the substance or mixture

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

Explosion hazard: May form flammable/explosive vapour-air mixture.

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 vapour 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

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper 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

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: Handle empty containers with care because residual vapours are flammable.

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. Containers and transfer lines require grounding during use. Use only outdoors or in a well-ventilated area. Use only non-sparking tools.

Hygiene measures: Wash contaminated clothing before reuse. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Ground/bond container and receiving equipment. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.

Storage conditions: Keep container tightly closed.


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

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</table>
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 or face shield. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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Acetic acid (64-19-7)

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ACETOXYTRIMETHYLSILANE
Safety Data Sheet

Freezing point : -32 °C
Boiling point : 103 - 104 °C
Flash point : 4 °C
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Highly flammable liquid and vapour.
Vapour pressure : 35 mm Hg @ 30°C
Relative vapour density at 20 °C : > 1
Relative density : 0.891
Solubility : Reacts with 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
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
Reacts with water and moisture in air liberating acetic acid.

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

10.5. Incompatible materials

10.6. Hazardous decomposition products
Acetic acid. Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified

| Acetic acid (64-19-7) |  
|----------------------|----------------------|
| LD50 oral rat        | 3310 mg/kg           |
| LD50 dermal rabbit   | 1060 mg/kg           |
| LC50 inhalation rat (mg/l) | 11.4 mg/l/4h   |

Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : May cause respiratory irritation.
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Symptoms/effects after skin contact : Causes (severe) skin burns.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : May be harmful if swallowed.
Reason for classification : Expert judgment
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SECTION 12: Ecological information

12.1. Toxicity
Acute aquatic toxicity : Not classified
Chronic aquatic toxicity : Not classified

**Acetic acid (64-19-7)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>79 mg/l</td>
<td>96 h</td>
<td>Pimephales promelas [static]</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>65 mg/l</td>
<td>48 h</td>
<td>Daphnia magna [Static]</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>75 mg/l</td>
<td>96 h</td>
<td>Lepomis macrochirus [static]</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

**Acetic acid (64-19-7)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>-0.31 (at 20 °C)</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
Other adverse effects : This substance may be hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : May be incinerated. Dispose 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 vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

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

<table>
<thead>
<tr>
<th>UN-No. (ADR)</th>
<th>UN-No. (IMDG)</th>
<th>UN-No. (IATA)</th>
<th>UN-No. (ADN)</th>
<th>UN-No. (RID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2924</td>
<td>2924</td>
<td>2924</td>
<td>2924</td>
<td>2924</td>
</tr>
</tbody>
</table>

14.2. UN proper shipping name

<table>
<thead>
<tr>
<th>Proper Shipping Name (ADR)</th>
<th>Proper Shipping Name (IMDG)</th>
<th>Proper Shipping Name (IATA)</th>
<th>Proper Shipping Name (ADN)</th>
<th>Proper Shipping Name (RID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABLE LIQUID, CORROSIVE, N.O.S.</td>
<td>FLAMMABLE LIQUID, CORROSIVE, N.O.S.</td>
<td>Flammable liquid, corrosive, n.o.s.</td>
<td>FLAMMABLE LIQUID, CORROSIVE, N.O.S.</td>
<td>FLAMMABLE LIQUID, CORROSIVE, N.O.S.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ACETOXYTRIMETHYLSILANE), 3 (8), II, (D/E)</td>
<td>UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ACETOXYTRIMETHYLSILANE), 3 (8), II</td>
<td>UN 2924 Flammable liquid, corrosive, n.o.s. (ACETOXYTRIMETHYLSILANE), 3 (8), II</td>
<td>UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ACETOXYTRIMETHYLSILANE), 3 (8), II</td>
<td>UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ACETOXYTRIMETHYLSILANE), 3 (8), II</td>
</tr>
</tbody>
</table>

14.3. Transport hazard class(es)

**ADR**

<table>
<thead>
<tr>
<th>Transport hazard class(es) (ADR)</th>
<th>Danger labels (ADR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 (8)</td>
<td>3, 8</td>
</tr>
</tbody>
</table>
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IMDG
Transport hazard class(es) (IMDG) : 3 (8)
Danger labels (IMDG) : 3, 8

IATA
Transport hazard class(es) (IATA) : 3 (8)
Hazard labels (IATA) : 3, 8

ADN
Transport hazard class(es) (ADN) : 3 (8)
Danger labels (ADN) : 3, 8

RID
Transport hazard class(es) (RID) : 3 (8)
Danger labels (RID) : 3, 8

14.4. Packing group
Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

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
Classification code (ADR) : FC
Special provisions (ADR) : 274
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Limited quantities (ADR): 1l
Excepted quantities (ADR): E2
Packing instructions (ADR): P001, IBC02
Mixed packing provisions (ADR): MP19
Portable tank and bulk container instructions (ADR): T11
Portable tank and bulk container special provisions (ADR): TP2, TP27
Tank code (ADR): L4BH
Vehicle for tank carriage: FL
Transport category (ADR): 2
Special provisions for carriage - Operation (ADR): S2, S20
Hazard identification number (Kemler No.): 338
Orange plates: 338
Tunnel restriction code (ADR): D/E

- Transport by sea
Special provisions (IMDG): 274
Limited quantities (IMDG): 1 L
Excepted quantities (IMDG): E2
Packing instructions (IMDG): P001
IBC packing instructions (IMDG): IBC02
Tank instructions (IMDG): T11
Tank special provisions (IMDG): TP2, TP27
EmS-No. (Fire): F-E
EmS-No. (Spillage): S-C
Stowage category (IMDG): B
Stowage and handling (IMDG): SW2
Properties and observations (IMDG): Causes burns to skin, eyes and mucous membranes.

- Air transport
PCA Excepted quantities (IATA): E2
PCA Limited quantities (IATA): Y340
PCA limited quantity max net quantity (IATA): 0.5L
PCA packing instructions (IATA): 352
PCA max net quantity (IATA): 1L
CAO packing instructions (IATA): 363
CAO max net quantity (IATA): 5L
Special provisions (IATA): A3
ERG code (IATA): 3CH

- Inland waterway transport
Classification code (ADN): FC
Special provisions (ADN): 274
Limited quantities (ADN): 1 L
Excepted quantities (ADN): E2
Carriage permitted (ADN): T
Equipment required (ADN): PP, EP, EX, A
Ventilation (ADN): VE01
Number of blue cones/lights (ADN): 1

- Rail transport
Classification code (RID): FC
Special provisions (RID): 274
Limited quantities (RID): 1L
Excepted quantities (RID): E2
Packing instructions (RID): P001, IBC02
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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
ACETOXYTRIMETHYLSILANE is not on the REACH Candidate List
ACETOXYTRIMETHYLSILANE is not on the REACH Annex XIV List
ACETOXYTRIMETHYLSILANE 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.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-lijst van kankerverwekkende stoffen : The substance is not listed
SZW-lijst van mutagene stoffen : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark
Class for fire hazard : Class I-1
Store unit : 1 liter
Classification remarks : F <Flam. Liq. 2>: Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

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.

Full text of H- and EUH-statements:

Eye Dam. 1 Serious eye damage/eye irritation, Category 1
Eye Irrit. 2 Serious eye damage/eye irritation, Category 2
<table>
<thead>
<tr>
<th>Acute</th>
<th>Chronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2</td>
<td>Flammable liquids, Category 2</td>
</tr>
<tr>
<td>Flam. Liq. 3</td>
<td>Flammable liquids, Category 3</td>
</tr>
<tr>
<td>Skin Corr. 1A</td>
<td>Skin corrosion/irritation, Category 1A</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation, Category 1B</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
</tbody>
</table>

SDS EU (REACH Annex II) - Custom

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