

## N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXSILANE, 50% in ethanol

Safety Data Sheet SIA0180.0

Date of issue: 27/03/2015

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Version: 1.1

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

#### 1.1. Product identifier

|                 |  |
|-----------------|--|
| Product form    | : Mixture  |
| Physical state  | : Liquid   |
| Product name    | : N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXSILANE, 50% in ethanol |
| Product code    | : SIA0180.0  |
| Formula         | : C <sub>15</sub> H <sub>31</sub> NO <sub>6</sub> Si                         |
| Chemical family | : ORGANOETHOXSILANE  |

#### 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](mailto:info@gelest.com) - [www.gelest.com](http://www.gelest.com)

##### GELEST INC.

Fritz-Klatte-Strasse 8  
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[info@gelestde.com](mailto:info@gelestde.com) - [www.gelestde.com](http://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 2         | H315 |
| Serious eye damage/eye irritation, Category 2 | H319 |
| 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) :



GHS02

GHS07

Signal word (CLP) :

: Danger

Hazard statements (CLP) :

: H225 - Highly flammable liquid and vapour.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.

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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.  
P264 - Wash hands thoroughly after handling.  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Other hazards

Other hazards not contributing to the classification : Overexposure to ethanol by skin absorption, inhalation or ingestion may have a narcotic effect (headache, nausea, drowsiness). Ethanol is metabolized to acetaldehyde and acetic acid which in large quantities result in metabolic acidosis, CNS depression and death due to respiratory arrest. This product contains ethanol which is classified as a carcinogen by IARC in alcoholic beverages.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name  | Product identifier   | %    | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|------|---|
| Ethanol   | (CAS-No.) 64-17-5<br>(EC-No.) 200-578-6<br>(EC Index-No.) 603-002-00-5 | < 50 | Flam. Liq. 2, H225  |
| N-(3-Acryloxy-2-hydroxypropyl)-3-aminopropyltriethoxysilane | (CAS-No.) 123198-57-2  | > 50 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319                       |

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 respiratory irritation. 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 : Water spray. Foam. Carbon dioxide. Dry chemical.

### 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.

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### 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 : Eliminate every possible source of ignition. 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

- 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. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Use only non-sparking tools.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed. Store cold.
- Incompatible materials : Oxidizing agent. Peroxides.
- 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

| Ethanol (64-17-5)            |   |  |
|------------------------------|---|--|
| Austria                      | MAK (mg/m <sup>3</sup> )  | 1900 mg/m <sup>3</sup>   |
| Austria                      | MAK (ppm)   | 1000 ppm   |
| Austria                      | MAK Short time value (mg/m <sup>3</sup> )                       | 3800 mg/m <sup>3</sup>   |
| Austria                      | MAK Short time value (ppm)                                      | 2000 ppm   |
| Belgium                      | Limit value (mg/m <sup>3</sup> )                                | 1907 mg/m <sup>3</sup>   |
| Belgium                      | Limit value (ppm)   | 1000 ppm   |
| Bulgaria                     | OEL TWA (mg/m <sup>3</sup> )                                    | 1000 mg/m <sup>3</sup>   |
| France                       | VLE (mg/m <sup>3</sup> )  | 9500 mg/m <sup>3</sup>   |
| France                       | VLE (ppm)   | 5000 ppm   |
| France                       | VME (mg/m <sup>3</sup> )  | 1900 mg/m <sup>3</sup>   |
| France                       | VME (ppm)   | 1000 ppm   |
| Germany                      | TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> ) | 960 mg/m <sup>3</sup> (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Germany                      | TRGS 900 Occupational exposure limit value (ppm)                | 500 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)               |
| Greece                       | OEL TWA (mg/m <sup>3</sup> )                                    | 1900 mg/m <sup>3</sup>   |
| Greece                       | OEL TWA (ppm)   | 1000 ppm   |
| Italy - Portugal - USA ACGIH | ACGIH STEL (ppm)  | 1000 ppm   |

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| Ethanol (64-17-5) |  |                                     |
|-------------------|--|-------------------------------------|
| Latvia            | OEL TWA (mg/m <sup>3</sup> )                       | 1000 mg/m <sup>3</sup>              |
| USA IDLH          | US IDLH (ppm)                                      | 3300 ppm (10% LEL)                  |
| USA NIOSH         | NIOSH REL (TWA) (mg/m <sup>3</sup> )               | 1900 mg/m <sup>3</sup>              |
| USA NIOSH         | NIOSH REL (TWA) (ppm)                              | 1000 ppm                            |
| USA OSHA          | OSHA PEL (TWA) (mg/m <sup>3</sup> )                | 1900 mg/m <sup>3</sup>              |
| USA OSHA          | OSHA PEL (TWA) (ppm)                               | 1000 ppm                            |
| Spain             | VLA-EC (mg/m <sup>3</sup> )                        | 1910 mg/m <sup>3</sup>              |
| Spain             | VLA-EC (ppm)                                       | 1000 ppm                            |
| Switzerland       | KZGW (mg/m <sup>3</sup> )                          | 1920 mg/m <sup>3</sup>              |
| Switzerland       | KZGW (ppm)   | 1000 ppm                            |
| Switzerland       | MAK (mg/m <sup>3</sup> )                           | 960 mg/m <sup>3</sup>               |
| Switzerland       | MAK (ppm)  | 500 ppm                             |
| Netherlands       | Grenswaarde TGG 8H (mg/m <sup>3</sup> )            | 260 mg/m <sup>3</sup>               |
| Netherlands       | Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )         | 1900 mg/m <sup>3</sup>              |
| United Kingdom    | WEL TWA (mg/m <sup>3</sup> )                       | 1920 mg/m <sup>3</sup>              |
| United Kingdom    | WEL TWA (ppm)                                      | 1000 ppm                            |
| United Kingdom    | WEL STEL (mg/m <sup>3</sup> )                      | 5760 mg/m <sup>3</sup> (calculated) |
| United Kingdom    | WEL STEL (ppm)                                     | 3000 ppm (calculated)               |
| Czech Republic    | Expoziční limity (PEL) (mg/m <sup>3</sup> )        | 1000 mg/m <sup>3</sup>              |
| Denmark           | Grænseværdie (langvarig) (mg/m <sup>3</sup> )      | 1900 mg/m <sup>3</sup>              |
| Denmark           | Grænseværdie (langvarig) (ppm)                     | 1000 ppm                            |
| Finland           | HTP-arvo (8h) (mg/m <sup>3</sup> )                 | 1900 mg/m <sup>3</sup>              |
| Finland           | HTP-arvo (8h) (ppm)                                | 1000 ppm                            |
| Finland           | HTP-arvo (15 min)                                  | 2500 mg/m <sup>3</sup>              |
| Finland           | HTP-arvo (15 min) (ppm)                            | 1300 ppm                            |
| Hungary           | AK-érték   | 1900 mg/m <sup>3</sup>              |
| Hungary           | CK-érték   | 7600 mg/m <sup>3</sup>              |
| Ireland           | OEL (15 min ref) (ppm)                             | 1000 ppm                            |
| Lithuania         | IPRV (mg/m <sup>3</sup> )                          | 1000 mg/m <sup>3</sup>              |
| Lithuania         | IPRV (ppm)   | 500 ppm                             |
| Lithuania         | TPRV (mg/m <sup>3</sup> )                          | 1900 mg/m <sup>3</sup>              |
| Lithuania         | TPRV (ppm)   | 1000 ppm                            |
| Norway            | Grenseverdier (AN) (mg/m <sup>3</sup> )            | 950 mg/m <sup>3</sup>               |
| Norway            | Grenseverdier (AN) (ppm)                           | 500 ppm                             |
| Norway            | Grenseverdier (Korttidsverdi) (mg/m <sup>3</sup> ) | 950 mg/m <sup>3</sup>               |
| Norway            | Grenseverdier (Korttidsverdi) (ppm)                | 500 ppm                             |
| Poland            | NDS (mg/m <sup>3</sup> )                           | 1900 mg/m <sup>3</sup>              |
| Romania           | OEL TWA (mg/m <sup>3</sup> )                       | 1900 mg/m <sup>3</sup>              |
| Romania           | OEL TWA (ppm)                                      | 1000 ppm                            |
| Romania           | OEL STEL (mg/m <sup>3</sup> )                      | 9500 mg/m <sup>3</sup>              |
| Romania           | OEL STEL (ppm)                                     | 5000 ppm                            |
| Slovakia          | NPHV (priemerná) (mg/m <sup>3</sup> )              | 960 mg/m <sup>3</sup>               |
| Slovakia          | NPHV (priemerná) (ppm)                             | 500 ppm                             |
| Slovakia          | NPHV (Hraničná) (mg/m <sup>3</sup> )               | 1920 mg/m <sup>3</sup>              |
| Sweden            | nivågränsvärde (NVG) (mg/m <sup>3</sup> )          | 1000 mg/m <sup>3</sup>              |
| Sweden            | nivågränsvärde (NVG) (ppm)                         | 500 ppm                             |
| Sweden            | kortidsvärde (KTV) (mg/m <sup>3</sup> )            | 1900 mg/m <sup>3</sup>              |
| Sweden            | kortidsvärde (KTV) (ppm)                           | 1000 ppm                            |
| Canada (Quebec)   | VEMP (mg/m <sup>3</sup> )                          | 1880 mg/m <sup>3</sup>              |

# N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol

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| Ethanol (64-17-5) |                            |   |
|-------------------|----------------------------|---|
| Canada (Quebec)   | VEMP (ppm)                 | 1000 ppm                                    |
| Australia         | TWA (mg/m <sup>3</sup> )   | 1880 mg/m <sup>3</sup>                      |
| Australia         | TWA (ppm)                  | 1000 ppm                                    |
| Portugal          | OEL TWA (ppm)              | 1000 ppm                                    |
| Portugal          | OEL chemical category (PT) | A4 - Not Classifiable as a Human Carcinogen |

### 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:

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                             | : 349.5 g/mol                           |
| Colour                                     | : Straw.                                |
| Odour                                      | : Mild. Alcohol.                        |
| Odour threshold                            | : No data available                     |
| Refractive index                           | : 1.4084                                |
| pH   | : No data available                     |
| Relative evaporation rate (butylacetate=1) | : No data available                     |
| Melting point                              | : No data available                     |
| Freezing point                             | : < 0 °C                                |
| Boiling point                              | : 76 °C (initial, ethanol)              |
| Flash point                                | : 15 °C                                 |
| Auto-ignition temperature                  | : 423 °C (ethanol)                      |
| Decomposition temperature                  | : No data available                     |
| Flammability (solid, gas)                  | : Highly flammable liquid and vapour.   |
| Vapour pressure                            | : 42 mm Hg @ 20°C (ethanol)             |
| Relative vapour density at 20 °C           | : No data available                     |
| Relative density                           | : 0.931                                 |
| % Volatiles                                | : > 50 %                                |
| Solubility                                 | : Soluble in 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                           | : 3.3 - 19 vol % ethanol (lower; upper) |

# N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol

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### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Non-hazardous polymerization may occur.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Heat. Sparks. Open flame.

### 10.5. Incompatible materials

Oxidizing agent. Peroxides.

### 10.6. Hazardous decomposition products

Organic acid vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

#### N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol (123198-57-2)

|               |             |
|---------------|-------------|
| LD50 oral rat | 12300 µl/kg |
|---------------|-------------|

#### Ethanol (64-17-5)

|                            |                       |
|----------------------------|-----------------------|
| LD50 oral rat              | 7060 mg/kg            |
| LC50 inhalation rat (mg/l) | 124.7 mg/l/4h         |
| LC50 inhalation rat (ppm)  | 20000 ppm 10 hrs.     |
| LDLo oral rat              | 1400 mg/kg (Human)    |
| ATE CLP (oral)             | 7060 mg/kg bodyweight |
| ATE CLP (vapours)          | 124.7 mg/l/4h         |
| ATE CLP (dust,mist)        | 124.7 mg/l/4h         |

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 : Not classified

#### Ethanol (64-17-5)

|            |                            |
|------------|----------------------------|
| IARC group | 1 - Carcinogenic to humans |
|------------|----------------------------|

Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified  
Symptoms/effects after inhalation : May cause respiratory irritation. 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.  
Reason for classification : Expert judgment

## SECTION 12: Ecological information

### 12.1. Toxicity

Acute aquatic toxicity : Not classified  
Chronic aquatic toxicity : Not classified

#### Ethanol (64-17-5)

|             |  |
|-------------|--|
| LC50 fish 1 | > 10000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [rainbow trout])  |
| LC50 fish 2 | > 13400 mg/l (Exposure time: 96 h - Species: Pimephales promelas [fathead minnow]) |

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### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

#### Ethanol (64-17-5)

|         |       |
|---------|-------|
| Log Pow | -0.32 |
|---------|-------|

### 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.

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)  | : 1993 |
| UN-No. (IMDG) | : 1993 |
| UN-No. (IATA) | : 1993 |
| UN-No. (ADN)  | : 1993 |
| UN-No. (RID)  | : 1993 |

### 14.2. UN proper shipping name

|                                       |  |
|---------------------------------------|--|
| Proper Shipping Name (ADR)            | : FLAMMABLE LIQUID, N.O.S.   |
| Proper Shipping Name (IMDG)           | : FLAMMABLE LIQUID, N.O.S.   |
| Proper Shipping Name (IATA)           | : Flammable liquid, n.o.s.   |
| Proper Shipping Name (ADN)            | : FLAMMABLE LIQUID, N.O.S.   |
| Proper Shipping Name (RID)            | : FLAMMABLE LIQUID, N.O.S.   |
| Transport document description (ADR)  | : UN 1993 FLAMMABLE LIQUID, N.O.S. (N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol), 3, II, (D/E) |
| Transport document description (IMDG) | : UN 1993 FLAMMABLE LIQUID, N.O.S. (N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol), 3, II        |
| Transport document description (IATA) | : UN 1993 Flammable liquid, n.o.s. (N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol), 3, II        |
| Transport document description (ADN)  | : UN 1993 FLAMMABLE LIQUID, N.O.S. (N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol), 3, II        |
| Transport document description (RID)  | : UN 1993 FLAMMABLE LIQUID, N.O.S. (N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol), 3, II        |

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 3  
Danger labels (ADR) : 3



#### IMDG

Transport hazard class(es) (IMDG) : 3

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Danger labels (IMDG) : 3



### IATA

Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3



### ADN

Transport hazard class(es) (ADN) : 3

Danger labels (ADN) : 3



### RID

Transport hazard class(es) (RID) : 3

Danger labels (RID) : 3



#### 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) : F1

Special provisions (ADR) : 274, 601, 640C

Limited quantities (ADR) : 1I

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001

Mixed packing provisions (ADR) : MP19

Portable tank and bulk container instructions (ADR) : T7



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|   |                  |
|---|------------------|
| Portable tank and bulk container special provisions (ADR) | : TP1, TP8, TP28 |
| Tank code (ADR)   | : L1.5BN         |
| Vehicle for tank carriage                                 | : FL             |
| Transport category (ADR)                                  | : 2              |
| Special provisions for carriage - Operation (ADR)         | : S2, S20        |
| Hazard identification number (Kemler No.)                 | : 33             |
| Orange plates   | :                |



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)        | : T7             |
| Tank special provisions (IMDG)  | : TP1, TP8, TP28 |
| EmS-No. (Fire)                  | : F-E            |
| EmS-No. (Spillage)              | : S-E            |
| Stowage category (IMDG)         | : B              |

### - Air transport

|  |        |
|--|--------|
| PCA Excepted quantities (IATA)               | : E2   |
| PCA Limited quantities (IATA)                | : Y341 |
| PCA limited quantity max net quantity (IATA) | : 1L   |
| PCA packing instructions (IATA)              | : 353  |
| PCA max net quantity (IATA)                  | : 5L   |
| CAO packing instructions (IATA)              | : 364  |
| CAO max net quantity (IATA)                  | : 60L  |
| Special provisions (IATA)                    | : A3   |
| ERG code (IATA)                              | : 3H   |

### - Inland waterway transport

|                                   |                  |
|-----------------------------------|------------------|
| Classification code (ADN)         | : F1             |
| Special provisions (ADN)          | : 274, 601, 640C |
| Limited quantities (ADN)          | : 1 L            |
| Excepted quantities (ADN)         | : E2             |
| Carriage permitted (ADN)          | : T              |
| Equipment required (ADN)          | : PP, EX, A      |
| Ventilation (ADN)                 | : VE01           |
| Number of blue cones/lights (ADN) | : 1              |

### - Rail transport

|   |                  |
|---|------------------|
| Classification code (RID)                                 | : F1             |
| Special provisions (RID)                                  | : 274, 601, 640C |
| Limited quantities (RID)                                  | : 1L             |
| Excepted quantities (RID)                                 | : E2             |
| Packing instructions (RID)                                | : P001           |
| Mixed packing provisions (RID)                            | : MP19           |
| Portable tank and bulk container instructions (RID)       | : T7             |
| Portable tank and bulk container special provisions (RID) | : TP1, TP8, TP28 |
| Tank codes for RID tanks (RID)                            | : L1.5BN         |

# N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol

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Transport category (RID) : 2  
Colis express (express parcels) (RID) : CE7  
Hazard identification number (RID) : 33

### 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 substance 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.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

Contains no REACH Annex XIV substances

% Volatiles : > 50 %

#### 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 : Ethanol is listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : Ethanol is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : Ethanol is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : Ethanol is 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

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## 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 Irrit. 2  | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2  | Flammable liquids, Category 2                 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2         |
| H225          | Highly flammable liquid and vapour.           |

# N-(3-ACRYLOXY-2-HYDROXYPROPYL)-3-AMINOPROPYLTRIETHOXYSILANE, 50% in ethanol

## Safety Data Sheet

|      |                                |
|------|--------------------------------|
| H315 | Causes skin irritation.        |
| H319 | Causes serious eye irritation. |

SDS EU (REACH Annex II) - Custom

*The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.*

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