

# 4-[2-(TRICHLOROSILYL)ETHYL]PYRIDINE, 15-20% in toluene

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
 Issue date: 6/23/2016 Revision date: 12/21/2023 Version: 2.1

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

#### 1.1. Product identifier

|                 |  |
|-----------------|--|
| Product form    | : Mixture  |
| Product name    | : 4-[2-(TRICHLOROSILYL)ETHYL]PYRIDINE, 15-20% in toluene |
| Product code    | : SIT8158.0  |
| Formula         | : C7H8Cl3NSi   |
| Product group   | : Blend  |
| Chemical family | : CHLOROSILANE   |

#### 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)

#### 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 1, Sub-Category 1B                                     | H314 |
| Serious eye damage/eye irritation, Category 1  | H318 |
| Reproductive toxicity, Category 2  | H361 |
| Specific target organ toxicity – Single exposure, Category 3, Narcosis                     | H336 |
| Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation | H335 |
| Specific target organ toxicity – Repeated exposure, Category 2                             | H373 |
| Hazardous to the aquatic environment – Chronic Hazard, Category 3                          | H412 |

Full text of H- and EUH-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)



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|                                |   |
|--------------------------------|---|
| Signal word (CLP)              | : Danger  |
| Contains                       | : Toluene; 4-[2-(Trichlorosilyl)ethyl]pyridine  |
| Hazard statements (CLP)        | : H225 - Highly flammable liquid and vapour.<br>H314 - Causes severe skin burns and eye damage.<br>H335 - May cause respiratory irritation.<br>H336 - May cause drowsiness or dizziness.<br>H361 - Suspected of damaging fertility or the unborn child.<br>H373 - May cause damage to organs through prolonged or repeated exposure.<br>H412 - Harmful to aquatic life with long lasting effects.                               |
| Precautionary statements (CLP) | : P201 - Obtain special instructions before use.<br>P202 - Do not handle until all safety precautions have been read and understood.<br>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.<br>No smoking.<br>P233 - Keep container tightly closed.<br>P240 - Ground and bond container and receiving equipment.<br>P241 - Use explosion-proof electrical/ventilating/lighting equipment. |
| EUH-statements                 | : EUH014 - Reacts violently with water.   |

### 2.3. Other hazards

Other hazards which do not result in classification : Hydrogen chloride may be formed by reaction with water and moisture in air. The US OSHA PEL (TWA) for hydrogen chloride is 5 ppm.

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## 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]  |
|-------------------------------------|---|---------|--|
| Toluene                             | CAS-No.: 108-88-3<br>EC-No.: 203-625-9<br>EC Index-No.: 601-021-00-3<br>REACH-no: 01-2119471310-51-0127 | 80 – 85 | Flam. Liq. 2, H225<br>Acute Tox. 4 (Inhalation:vapour), H332<br>Skin Irrit. 2, H315<br>Repr. 2, H361d<br>STOT SE 3, H336<br>STOT RE 2, H373<br>Asp. Tox. 1, H304 |
| 4-[2-(Trichlorosilyl)ethyl]pyridine | CAS-No.: 17082-70-1<br>EC-No.: 241-138-3  | 15 – 20 | Flam. Liq. 2, H225<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335   |

Full text of H- and EUH-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.  |

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|                                       |   |
|---------------------------------------|---|
| 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. May cause damage to organs through prolonged or repeated exposure. Suspected of damaging fertility or the unborn child.   |
| Symptoms/effects after inhalation   | : May cause respiratory irritation. May cause drowsiness or dizziness. Overexposure may cause: Cough. Headache. Nausea. Impairment of coordination, distorted perception and CNS disturbances have been reported for toluene intoxication. |
| 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

|                                |   |
|--------------------------------|---|
| Suitable extinguishing media   | : Water spray. Water fog. Foam. Carbon dioxide. Dry chemical. |
| Unsuitable extinguishing media | : Water.  |

### 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      | : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.   |
| 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

|                      |  |
|----------------------|--|
| 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. Avoid release to the environment.

### 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. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools. |

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### 6.4. Reference to other sections

See Section 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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid all eye and skin contact and do not breathe vapour and mist. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Use only non-sparking tools.

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

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.

Storage conditions : Keep container tightly closed. Keep in a cool place. Store locked up.

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

#### 8.1.1 National occupational exposure and biological limit values

| Toluene (108-88-3)                                 |                                 |
|--|---------------------------------|
| EU - Indicative Occupational Exposure Limit (IOEL) |                                 |
| Local name   | Toluene                         |
| IOEL TWA   | 192 mg/m <sup>3</sup>           |
|  | 50 ppm                          |
| IOEL STEL  | 384 mg/m <sup>3</sup>           |
|  | 100 ppm                         |
| Remark   | Skin                            |
| Regulatory reference                               | COMMISSION DIRECTIVE 2006/15/EC |

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

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### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Provide local exhaust or general room ventilation.

#### 8.2.2. Personal protection 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.

##### 8.2.2.1. Eye and face protection

###### Eye protection:

Chemical goggles or face shield. Contact lenses should not be worn

##### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

###### Hand protection:

Neoprene or nitrile rubber gloves

##### 8.2.2.3. Respiratory protection

###### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

##### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

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

|   |                                       |
|---|---------------------------------------|
| Physical state                                  | : Liquid                              |
| Colour  | : Amber.                              |
| Appearance                                      | : Hazy liquid. Fuming.                |
| Molecular mass                                  | : 240.59 g/mol                        |
| Odour   | : Acrid.                              |
| Odour threshold                                 | : Not available                       |
| Melting point                                   | : Not available                       |
| Freezing point                                  | : Not available                       |
| Boiling point                                   | : 110 °C initial (toluene)            |
| Flammability                                    | : Highly flammable liquid and vapour. |
| Explosive limits                                | : Not available                       |
| Lower explosion limit                           | : Not available                       |
| Upper explosion limit                           | : Not available                       |
| Flash point                                     | : 4 °C                                |
| Auto-ignition temperature                       | : Not available                       |
| Decomposition temperature                       | : Not available                       |
| pH  | : Not available                       |
| Viscosity, kinematic                            | : Not available                       |
| Solubility                                      | : Reacts with water.                  |
| Partition coefficient n-octanol/water (Log Kow) | : Not available                       |
| Vapour pressure                                 | : Not available                       |
| Vapour pressure at 50°C                         | : Not available                       |
| Density   | : Not available                       |
| Relative density                                | : 0.93                                |
| Relative vapour density at 20°C                 | : Not available                       |
| Particle characteristics                        | : Not applicable                      |

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### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

VOC content : > 80 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Material decomposes in contact with moist air or with water liberating hydrochloric acid.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

Hydrochloric acid. Acid vapors.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

#### Toluene (108-88-3)

|                                 |                        |
|---------------------------------|------------------------|
| LD50 oral rat                   | 2600 mg/kg             |
| LD50 dermal rabbit              | 12000 mg/kg            |
| LC50 Inhalation - Rat           | 12.5 mg/l/4h           |
| LC50 Inhalation - Rat (Vapours) | > 20 mg/l Source: ECHA |

Skin corrosion/irritation : Causes severe skin burns.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

#### Toluene (108-88-3)

|                       |  |
|-----------------------|--|
| IARC group            | 3 - Not classifiable   |
| Reproductive toxicity | : Suspected of damaging fertility or the unborn child.                 |
| STOT-single exposure  | : May cause drowsiness or dizziness. May cause respiratory irritation. |

#### Toluene (108-88-3)

|                      |                                    |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

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| 4-[2-(Trichlorosilyl)ethyl]pyridine (17082-70-1) |  |
|--|--|
| STOT-single exposure                             | May cause respiratory irritation.  |
| STOT-repeated exposure                           | : May cause damage to organs through prolonged or repeated exposure.   |
| Toluene (108-88-3)                               |  |
| LOAEL (oral, rat, 90 days)                       | 1250 mg/kg bodyweight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents) |
| NOAEL (oral, rat, 90 days)                       | 625 mg/kg bodyweight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)  |
| NOAEC (inhalation, rat, vapour, 90 days)         | 2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)   |
| STOT-repeated exposure                           | May cause damage to organs through prolonged or repeated exposure.   |

Aspiration hazard : Not classified.

| Toluene (108-88-3)   |                       |
|----------------------|-----------------------|
| Viscosity, kinematic | 65 mm <sup>2</sup> /s |

## 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

|   |  |
|---|--|
| Ecology - general   | : Harmful to aquatic life.                           |
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified                                     |
| Hazardous to the aquatic environment, long-term (chronic) | : Harmful to aquatic life with long lasting effects. |

### Toluene (108-88-3)

|                      |  |
|----------------------|--|
| LC50 - Fish [1]      | 15.22 – 19.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| LC50 - Fish [2]      | 12.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])                |
| EC50 - Crustacea [1] | 5.46 – 9.83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])               |
| EC50 - Crustacea [2] | 11.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)                               |
| EC50 72h - Algae [1] | 12.5 mg/l (Species: Pseudokirchneriella subcapitata [static])                          |
| EC50 96h - Algae [1] | > 433 mg/l (Species: Pseudokirchneriella subcapitata)                                  |
| LOEC (chronic)       | 2.76 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'                 |
| NOEC (chronic)       | 0.74 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'                 |
| NOEC chronic fish    | 1.39 mg/l Test organisms (species): Oncorhynchus kisutch Duration: '40 d'              |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

| Toluene (108-88-3)                              |      |
|---|------|
| Partition coefficient n-octanol/water (Log Pow) | 2.65 |

### 12.4. Mobility in soil

No additional information available

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### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. 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 | : 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.   |
| Ecological waste information               | : Avoid release to the environment.   |

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR   | IMDG  | IATA  | ADN   | RID   |
|---|---|---|---|---|
| <b>14.1. UN number or ID number</b>   |   |   |   |   |
| UN 2985   |
| <b>14.2. UN proper shipping name</b>  |   |   |   |   |
| CHLOROSILANES,<br>FLAMMABLE,<br>CORROSIVE, N.O.S.                                   | CHLOROSILANES,<br>FLAMMABLE,<br>CORROSIVE, N.O.S.                                   | Chlorosilanes, flammable,<br>corrosive, n.o.s.                                      | CHLOROSILANES,<br>FLAMMABLE,<br>CORROSIVE, N.O.S.                                   | CHLOROSILANES,<br>FLAMMABLE,<br>CORROSIVE, N.O.S.                                   |
| <b>Transport document description</b>   |   |   |   |   |
| UN 2985<br>CHLOROSILANES,<br>FLAMMABLE,<br>CORROSIVE, N.O.S., 3<br>(8), II, (D/E)   | UN 2985<br>CHLOROSILANES,<br>FLAMMABLE,<br>CORROSIVE, N.O.S., 3<br>(8), II          | UN 2985 Chlorosilanes,<br>flammable, corrosive,<br>n.o.s., 3 (8), II                | UN 2985<br>CHLOROSILANES,<br>FLAMMABLE,<br>CORROSIVE, N.O.S., 3<br>(8), II          | UN 2985<br>CHLOROSILANES,<br>FLAMMABLE,<br>CORROSIVE, N.O.S., 3<br>(8), II          |
| <b>14.3. Transport hazard class(es)</b>   |   |   |   |   |
| 3 (8)   | 3 (8)   | 3 (8)   | 3 (8)   | 3 (8)   |
|  |  |  |  |  |
|  |  |  |  |  |
| <b>14.4. Packing group</b>  |   |   |   |   |
| II  | II  | II  | II  | II  |
| <b>14.5. Environmental hazards</b>  |   |   |   |   |
| Dangerous for the environment: No   | Dangerous for the environment: No<br>Marine pollutant: No                           | Dangerous for the environment: No   | Dangerous for the environment: No   | Dangerous for the environment: No   |
| No supplementary information available  |   |   |   |   |

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### 14.6. Special precautions for user

#### Overland transport

|   |   |   |
|---|---|---|
| Classification code (ADR)                                 | : | FC  |
| Special provisions (ADR)                                  | : | 548   |
| Limited quantities (ADR)                                  | : | 0   |
| Excepted quantities (ADR)                                 | : | E0  |
| Packing instructions (ADR)                                | : | P010  |
| Mixed packing provisions (ADR)                            | : | MP19  |
| Portable tank and bulk container instructions (ADR)       | : | T14   |
| Portable tank and bulk container special provisions (ADR) | : | TP2, TP7, 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.)                 | : | X338  |
| Orange plates   | : |  |
| Tunnel restriction code (ADR)                             | : | D/E   |

#### Transport by sea

|                                    |   |  |
|------------------------------------|---|--|
| Limited quantities (IMDG)          | : | 0  |
| Excepted quantities (IMDG)         | : | E0   |
| Packing instructions (IMDG)        | : | P010   |
| Tank instructions (IMDG)           | : | T14  |
| Tank special provisions (IMDG)     | : | TP2, TP7, TP13, TP27   |
| EmS-No. (Fire)                     | : | F-E  |
| EmS-No. (Spillage)                 | : | S-C  |
| Stowage category (IMDG)            | : | B  |
| Stowage and handling (IMDG)        | : | SW2  |
| Properties and observations (IMDG) | : | White or slightly yellowish deliquescent crystals or sticks. Soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Mixtures with ammonium compounds or cyanides may explode. Harmful if swallowed. |

#### Air transport

|  |   |           |
|--|---|-----------|
| PCA Excepted quantities (IATA)               | : | E0        |
| PCA Limited quantities (IATA)                | : | Forbidden |
| PCA limited quantity max net quantity (IATA) | : | Forbidden |
| PCA packing instructions (IATA)              | : | Forbidden |
| PCA max net quantity (IATA)                  | : | Forbidden |
| CAO packing instructions (IATA)              | : | 377       |
| CAO max net quantity (IATA)                  | : | 5L        |
| ERG code (IATA)                              | : | 3C        |

#### Inland waterway transport

|                                   |   |               |
|-----------------------------------|---|---------------|
| Classification code (ADN)         | : | FC            |
| Special provisions (ADN)          | : | 548           |
| Limited quantities (ADN)          | : | 0             |
| Excepted quantities (ADN)         | : | E0            |
| 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)   | : | 548  |
| Limited quantities (RID)   | : | 0    |
| Excepted quantities (RID)  | : | E0   |
| Packing instructions (RID) | : | P010 |

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|   |   |                |
|---|---|----------------|
| Mixed packing provisions (RID)                            | : | MP19           |
| Portable tank and bulk container instructions (RID)       | : | T14            |
| Portable tank and bulk container special provisions (RID) | : | TP2, TP7, TP27 |
| Tank codes for RID tanks (RID)                            | : | L4BH           |
| Transport category (RID)                                  | : | 2              |
| Colis express (express parcels) (RID)                     | : | CE7            |
| Hazard identification number (RID)                        | : | X338           |

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

| EU restriction list (REACH Annex XVII) |  |  |
|--|--|--|
| Reference code                         | Applicable on  | Entry title or description   |
| 3(a)                                   | 4-[2-(TRICHLOROSILYL)ETHYL]PYRIDINE, 15-20% in toluene ; Toluene ; 4-[2-(Trichlorosilyl)ethyl]pyridine | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F   |
| 3(b)                                   | 4-[2-(TRICHLOROSILYL)ETHYL]PYRIDINE, 15-20% in toluene ; Toluene ; 4-[2-(Trichlorosilyl)ethyl]pyridine | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10  |
| 3(c)                                   | 4-[2-(TRICHLOROSILYL)ETHYL]PYRIDINE, 15-20% in toluene   | Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1  |
| 40.                                    | Toluene ; 4-[2-(Trichlorosilyl)ethyl]pyridine  | Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. |
| 48.                                    | Toluene  | Toluene  |

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

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### VOC Directive (2004/42)

VOC content : > 80 %

### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

### Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

| Name    | CN designation | CAS-No.  | CN code    | Category   | Threshold | Annex   |
|---------|----------------|----------|------------|------------|-----------|---------|
| Toluene |                | 108-88-3 | 2902 30 00 | Category 3 |           | Annex I |

### 15.1.2. National regulations

No additional information available

### 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:

|                                  |   |
|----------------------------------|---|
| Acute Tox. 4 (Inhalation:vapour) | Acute toxicity (inhalation:vapour) Category 4                     |
| Aquatic Chronic 3                | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |
| Asp. Tox. 1                      | Aspiration hazard, Category 1                                     |
| EUH014                           | Reacts violently with water.                                      |
| Eye Dam. 1                       | Serious eye damage/eye irritation, Category 1                     |
| Flam. Liq. 2                     | Flammable liquids, Category 2                                     |
| H225                             | Highly flammable liquid and vapour.                               |
| H304                             | May be fatal if swallowed and enters airways.                     |
| H314                             | Causes severe skin burns and eye damage.                          |
| H315                             | Causes skin irritation.   |
| H318                             | Causes serious eye damage.  |
| H332                             | Harmful if inhaled.   |
| H335                             | May cause respiratory irritation.                                 |
| H336                             | May cause drowsiness or dizziness.                                |
| H361                             | Suspected of damaging fertility or the unborn child.              |
| H361d                            | Suspected of damaging the unborn child.                           |

# 4-[2-(TRICHLOROSILYL)ETHYL]PYRIDINE, 15-20% in toluene

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| Full text of H- and EUH-statements: |  |
|-------------------------------------|--|
| H373                                | May cause damage to organs through prolonged or repeated exposure.     |
| H412                                | Harmful to aquatic life with long lasting effects.                     |
| Repr. 2                             | Reproductive toxicity, Category 2                                      |
| Skin Corr. 1B                       | Skin corrosion/irritation, Category 1, Sub-Category 1B                 |
| Skin Irrit. 2                       | Skin corrosion/irritation, Category 2                                  |
| STOT RE 2                           | Specific target organ toxicity – Repeated exposure, Category 2         |
| STOT SE 3                           | Specific target organ toxicity – Single exposure, Category 3, Narcosis |

SDS EU (REACH Annex II) - Custom v22

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