



# Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY UNDERTAKING

### 1.1. Product identifier

|               |  |
|---------------|--|
| Product name  | Tenax TeFill 1- Cyanoacrylate Adhesive 105 |
| Product Grade | 7085-85-0                                  |
| CAS number    | 230-391-5                                  |
| EC number     | 01-2119527766-29-0001                      |
| REACH number  |  |

### 1.2. Relevant identified uses of the substance and uses advised against

|              |   |
|--------------|---|
| Applications | Industrial adhesives application<br>Consumer use of adhesives |
|--------------|---|

### 1.3. Details of the supplier of the safety data sheet

|               |   |
|---------------|---|
| Name          | Tenax USA   |
| Address       | 7606 Whitehall Executive Center Dr<br>Suite 400<br>Charlotte, NC 28273<br>USA |
| Telephone     | 704-583-1173  |
| Fax           | 704-583-3166  |
| Contact email | info@tenaxusa.com   |

### 1.4. Emergency telephone number

|                      |   |
|----------------------|---|
| Infotrac emergency # | US and Canada: 1-800-535-5053<br>Int'l: 1-352-323-3500<br>info@infotrac.net |
|----------------------|---|

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance

#### 2.1.1. Classification of the product according to DSD (67/548/EC)

|             |  |
|-------------|--|
| Xi IRRITANT | R 36/37/38 Irritating to eyes, respiratory system and skin |
|-------------|--|

#### 2.1.2. Classification of the product according to CLP (1272/2008/EC)

|               |                                       |
|---------------|---------------------------------------|
| Eye irrit. 2  | H319 Causes serious eye irritation    |
| STOT SE 3     | H335 May cause respiratory irritation |
| Skin irrit. 2 | H315 Causes skin irritation           |

### 2.2. Label elements according to CLP (1272/2008/EC)

Hazard pictograms





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|                                       |  |
|---------------------------------------|--|
| Signal word                           | Warning  |
| Hazard statements                     | H319 Causes serious eye irritation<br>H335 May cause respiratory irritation<br>H315 Causes skin irritation<br>EUH202 – “Cyanoacrylate. Danger. Bonds skin and eyes in second. Keep out of the reach of children”   |
| Precautionary statements - Prevention | P280 Wear protective gloves/protective clothing/eye protection/ face protection  |
| Precautionary statements - Response   | P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing<br>P332+313 If skin irritation occurs: Get medical advice/attention<br>P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing |
| Precautionary statements - Storage    | P403+233 Store in a well-ventilated place. Keep container tightly closed   |
| Precautionary statements - Disposal   | P501 Dispose of contents/container as hazardous or special waste   |

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Name of substance     | CAS No.   | EC No.    | REACH No.             | Concentration | Classification (DSD/CLP)  | Specific concentration limits |
|-----------------------|-----------|-----------|-----------------------|---------------|---|-------------------------------|
| Ethyl-2-cyanoacrylate | 7085-85-0 | 230-391-5 | 01-2119527766-29-0001 | 80 – 99 %     | Xi; R36/37/38   | C ≥ 10% : Xi; R36/37/38       |
|                       |           |           |                       |               | Eye irrit. 2 ;<br>H319<br>STOT SE 3 ;<br>H335<br>Skin irrit. 2;<br>H315 |                               |

### 4. FIRST AID MEASURES

#### 4.1. Description of first aid measures

General

Call a POISON CENTER or doctor/physician if you feel unwell



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|            |  |
|------------|--|
| Inhalation | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If still feeling unwell seek medical attention.   |
| Skin       | IF ON SKIN: Wash with plenty of soap and water. Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water. Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn. Burns should be treated normally after the adhesive has been removed from the skin.<br>If lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action. If skin irritation occurs: Get medical advice/attention. |
| Eyes       | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If the eye is bonded closed, release eyelashes with warm water by covering with wet pad. Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause an abrasive damage.   |
| Ingestion  | Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).   |

#### 4.2. Most important symptoms and effects, both acute and delayed

Gross contamination with the adhesive may generate enough heat to cause a burn.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Not determined

## 5. FIREFIGHTING MEASURES

|   |  |
|---|--|
| <b>5.1. Extinguishing media</b>                                   | <u>Suitable extinguishing agents:</u> Dry powder, foam, carbon dioxide, fine water spray<br><br><u>Unsuitable extinguishing agents:</u> Water jet              |
| <b>5.2. Special hazards arising from the substance or mixture</b> | Trace amounts of toxic fumes may be released on incineration. Hazardous combustion products: oxides of carbon, oxides of nitrogen, irritating organic vapours. |
| <b>5.3. Advice for fire-fighters</b>                              | Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and suitable protective clothing.  |

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### 6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid skin and eye contact. Avoid breathing dust/fume/gas/mist/vapours/spray.
- 6.2. Environmental precautions** Do not let product enter drains.
- 6.3. Methods and material for containment and cleaning up** Do not use clothes for mopping up. Flood with water to complete polymerisation and scrape off the floor. Cured material can be disposed of as non-hazardous waste.
- 6.4. Reference to other sections** Safe handling: see section 7  
Disposal: see section 13  
Personal protective equipment: see section 8

### 7. HANDLING AND STORAGE

- 7.1. Precautions for safe handling** Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Ventilation (low level) is recommended when using large volumes. Use of dispensing equipment is recommended to minimise the risk of skin or eye contact. Wash hands thoroughly after handling.
- 7.2. Conditions for safe storage, including any incompatibilities** For optimum shelf life store in original containers under refrigerated conditions at 2°C to 8°C. Store locked up.
- 7.3. Specific end use(s)** Not applicable

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

##### *Exposure limit values*

| Country | Type      | Value                                    |
|---------|-----------|--|
| UK      | STEL      | 0.3 ppm; 1.5 mg.m <sup>-3</sup> (15 min) |
| Ireland | OEL / TWA | 0.2 ppm                                  |
| Germany | MAK       | No MAK value established                 |
| France  | VME/VLE   | No VME/VLE established                   |

##### *Derived DNEL(s) / DMEL(s)*

| Type | Details | Value | Basis |
|------|---------|-------|-------|
|------|---------|-------|-------|



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|  |   |
|--|---|
| - Odour  | pungent   |
| - Odour threshold                              | Not determined  |
| - pH   | Not determined  |
| - Melting point                                | -31°C   |
| - Boiling point                                | 214 °C (at 1003 mbar)   |
| - Flash point                                  | 82.5 °C (at 1003 mbar)  |
| - Evaporation rate                             | Not determined  |
| - Flammability                                 | Not flammable   |
| - Auto flammability                            | 480°C   |
| - Upper/lower flammability or explosive limits | Not applicable  |
| - Explosive properties                         | No explosive properties                                       |
| - Oxidising properties                         | No oxidising properties                                       |
| - Vapour pressure                              | ≤ 21 Pa   |
| - % volatile by volume                         | Not determined  |
| - Vapour density                               | Not determined  |
| - Specific gravity                             | 1.043 g/cm <sup>3</sup> at 20°C                               |
| - Solubility in water                          | ≤ 0,024 mg/l  |
| - Other Solvents                               | Recovery in acetone: 91.8%<br>Recovery in acetonitrile: 96.5% |
| - Partition coefficient (n-octanol/water)      | Log Pow 0,776 (calculated)                                    |
| - Decomposition temperature                    | Not determined  |

### 9.2. Other information

None

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>10.1. Reactivity</b>                         | Not determined  |
| <b>10.2. Chemical stability</b>                 | Stable under normal conditions of storage and use                               |
| <b>10.3. Possibility of hazardous reactions</b> | Polymerisation will occur in the presence of moisture and other basic materials |
| <b>10.4. Conditions to</b>                      | Moisture, humidity, basic material  |

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avoid

**10.5. Incompatible materials** Water, soil, amines, alkalis and alcohols

**10.6. Hazardous decomposition materials** Oxides of carbon, oxides of nitrogen

### 11. Toxicological information

#### 11.1. Information on toxicological effects

- Acute toxicity Oral: LD<sub>50</sub> (oral, rat) > 5000 mg/kg bw (OECD 401)  
Dermal: LD<sub>50</sub> (dermal, rabbit) > 2000 mg/kg bw (OECD 402)  
Inhalation: In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system. Prolonged exposure to high concentrations of vapours may lead to chronic effects in sensitive individuals.
- Skin corrosion/irritation Causes skin irritation
- Serious eye damage/irritation Irritating to eyes. In a dry atmosphere (RH<50%) vapours may cause irritation and lachrymatory effect.
- Respiratory or skin sensitisation Due to polymerisation at the skin surface allergic reaction is not considered possible. The polymerized material is not able to penetrate into the epidermis.
- Germ cell mutagenicity Because of the reduced exposure to monomer and the reported negative test result in various mutagenicity tests, ethyl-2-cyanoacrylate cannot be classified as mutagen.
- Carcinogenicity Not carcinogenic
- Reproductive toxicity Not toxic by reproduction
- STOT-single exposure May cause irritation for skin, eyes and respiratory system
- STOT-repeated exposure Ethyl-2-cyanoacrylate is not toxic by repeated absorption
- Aspiration hazard Not determined

#### 11.2. Other information

None

### 12. Ecological information



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|   |   |
|---|---|
| <b>12.1. Toxicity</b>                           | Low ecotoxicity   |
| <b>12.2. Persistence and degradability</b>      | Not applicable (the test compound would polymerize with contact of water or the moisture of the soil immediately) |
| <b>12.3. Bioaccumulative potential</b>          | Not applicable (in presence of moisture ethyl-2-cyanoacrylate polymerises within seconds)                         |
| <b>12.4. Mobility in soil</b>                   | Not applicable (the test compound would polymerize with contact of water or the moisture of the soil immediately) |
| <b>12.5. Results of PBT and vPvB assessment</b> | The PBT and vPvB criteria do not apply to ethyl-2-cyanoacrylate   |
| <b>12.6. Other adverse effects</b>              | Not determined  |

### 13. Disposal considerations

|  |   |
|--|---|
| <b>13.1. Waste treatment methods</b>                   | <p><u>Product disposal:</u><br/>Cured adhesive: Dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.<br/>Dispose of in accordance with local and national regulations. Polymerise by adding slowly to water (10:1).<br/>Contribution of this product to waste is very insignificant in comparison to article in which it is used.</p> <p><u>Disposal of uncleaned packages:</u><br/>After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated. Disposal must be made according to official regulations.</p> |
| <b>13.2. Waste code numbers / Waste identification</b> | 08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances.   |

### 14. Transport information

|                                      | Overland transport (ADR/RID) | River transport (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|--------------------------------------|------------------------------|-----------------------|----------------------|------------------------------------|
| <b>14.1. UN Number</b>               |                              | Not regulated         |                      | Not Regulated                      |
| <b>14.2. UN proper shipping name</b> |                              | Not regulated         |                      | liquid, (Cyanoacrylate ester)      |





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|                                       |                |  |
|---------------------------------------|----------------|--|
| <b>14.3. Transport hazard classes</b> | Not regulated  | 9  |
| <b>14.4. Packing group</b>            | Not regulated  | Packaging instructions (passenger): 906<br>Packaging instructions (cargo): 906 |
| <b>14.5. Environmental hazards</b>    | -              | no   |
| <b>14.6. Classification</b>           | Not regulated  | (Cyanoacrylate ester), 9   |
| <b>14.9. Limited amount (LQ)</b>      | Not regulated  | -  |
| <b>14.10. Additional information</b>  | Not determined | Unrestricted.  |

**14.11. Special precautions for user**

Not determined

**14.12. Transport in bulk**

Not determined

**15. Regulatory information****United States Regulatory Information**

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

**TSCA 12 (b) Export Notification:** None above reporting de minimis

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.

**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health, Fire, Reactive

**CERCLA/SARA Section 313:** None above reporting de minimis.

**California Proposition 65:** No California Proposition 65 listed chemicals are known to be present

**16. Other information****16.1. Indication on the revision**

SDS revised on the 07<sup>th</sup> March 2015: inclusion of CLP and DSD classification according to CLP regulation (1272/2008/EC) and addition of all fields as required by regulations 1907/2006/EC and 453/2010/EC.

**16.2. Abbreviations and acronyms**

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on inland waterways.

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ADR/RID: European Agreement, concerning the International Carriage of Dangerous Goods by Road/Regulations concerning the international carriage of dangerous goods by rail.

ACGIH: American Conference of Governmental Industrial Hygienists

CAS Number: Chemical Abstract Service Number

CLP: Classification, Labelling and Packaging

DNEL: Derived No Effect Level

DPD: Dangerous Preparation Directive

DSD: Dangerous Substance Directive

EC Number: European Commission Number

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Associations

IMDG: International Maritime Dangerous Goods code

NIOSH: National Institute of Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

PNEC: Predicted No Effect Concentration

PBT: Persistent, Bio accumulative, Toxic

UN Number: United Nations Number

UVCB: Substances of Unknown or Variable composition, Complex reaction products or Biological materials

TWA: Time-Weighted Average

VOC: Volatile organic compounds

VPvB: very Persistent and very Bio accumulative

WEL: Workplace Exposure Limit (UK HSE EH40)

### 16.3. Key literature references and sources for data

The present data in this SDS are based on the data present in the registration dossier of Ethyl Cyanoacrylate.

### 16.4. Classification of mixtures and applied evaluation method

Not applicable



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### 16.5. Wording of the R- and H- phrases (which are not written in full under section 2 to 15)

Risk phrases: -

H statements: -

S phrases:

S23 Do not breath vapour

S24/25 Avoid contact with skin and eyes

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### 16.6. Training advice

Unavailable

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.