SAFETY DATA SHEET

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

1.1. Product identifier
Name of the substance: Ethyl-2-cyanoacrylate
Trade name of the substance: Hyloglue 3 / 120 / 300 / 1000 / 2500
Identification number: 607-236-00-9 (Index number)
Registration number: -
Synonyms: None.
SDS number: 52
Issue date: 01-June-2015
Version number: 02
Revision date: 23-August-2018
Supersedes date: 01-June-2015

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Industrial grade instant adhesive.
Uses advised against: None known.

1.3. Details of the supplier of the safety data sheet
Manufacturer: Hylomar Ltd.
Address: Hylo House, Cale Lane, New Springs, Wigan, Greater Manchester, UK, WN2 1JT
Telephone number: +44(0)1942 617000
E-mail address: info@hylomar.co.uk
Contact person: Technical Department

1.4. Emergency telephone number
Access code: 333544

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

- **Health hazards**
  - Skin corrosion/irritation: Category 2, H315 - Causes skin irritation.
  - Serious eye damage/eye irritation: Category 2, H319 - Causes serious eye irritation.
  - Specific target organ toxicity - single exposure: Category 3 respiratory tract irritation, H335 - May cause respiratory irritation.

Hazard summary: Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

- **Contains:** Ethyl-2-cyanoacrylate
- **Hazard pictograms:**
  - !: Warning
- **Hazard statements:**
  - H315: Causes skin irritation.
  - H319: Causes serious eye irritation.
  - H335: May cause respiratory irritation.
Precautionary statements

Prevention

P261 Avoid breathing vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information


This substance does not meet vPvB / PBT criteria of Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>%</th>
<th>CAS-No. / EC No.</th>
<th>REACH Registration No.</th>
<th>Index No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl-2-cyanoacrylate</td>
<td>100</td>
<td>7085-85-0</td>
<td>607-236-00-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>230-391-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Classification: Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation

Move into fresh air and keep at rest. If not breathing, give artificial respiration or give oxygen by trained personnel. Get medical attention if any discomfort continues.

Skin contact

If adhesive bonds skin, flush with water and seek medical assistance. Do not attempt to force skin apart if bonded. Peel or roll the surfaces apart with the aid of a blunt edge, e.g. a spatula or a teaspoon handle; then remove adhesive from the skin with soap and water. Upon solidification cyanoacrylates produce heat, in rare cases, large drops generate enough heat to cause burns. Burns should be treated normally after the adhesive has been removed from the skin. If skin irritation persists, call a physician.

Eye contact

In the event that eyelids are stuck together or bonded to the eyeball, wash thoroughly with warm water and apply a gauze patch. The eye will open without further action, typically in 1 - 4 days. There will be no residual damage. Do not try to open the eyes by manipulation. Immediately flush eye(s) with plenty of water. Remove any contact lenses and open eyelids wide apart. If irritation persists get medical attention.

Ingestion

Rinse mouth thoroughly. It is almost impossible to swallow cyanoacrylates. The adhesive solidifies and adheres in mouth. Lips may become stuck together. Drink a few glasses of water or milk. Get medical attention if any discomfort continues.

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

Skin irritation. May cause redness and pain. Irritation of eyes. In high concentrations, vapours may be irritating to the respiratory system.

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

Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards: The product is combustible.

5.1. Extinguishing media

Suitable extinguishing media

Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

By heating and fire, toxic vapours/gases may be formed.
5.3. Advice for firefighters

**Special protective equipment for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

**Special fire fighting procedures**
Cool containers exposed to heat with water spray and remove container, if no risk is involved. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- **For non-emergency personnel**
  Keep upwind. Ventilate closed spaces before entering. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapours and contact with skin and eyes.

- **For emergency responders**
  Keep unnecessary personnel away. Wear protective clothing as described in Section 8 of this safety data sheet.

#### 6.2. Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not discharge into drains, water courses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up
Ventilate the area. Polymerise with water and scrape off floor. Transfer to a container for disposal. Following product recovery, flush area with water.

#### 6.4. Reference to other sections
For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling
Technical aids: Use disposable equipment (rags, brushes, spatulas, putty knives, etc.), if possible. Keep away from sources of ignition - No smoking. Avoid inhalation of vapours and contact with skin and eyes. Avoid prolonged exposure. Wear protective clothing as described in Section 8 of this safety data sheet. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use only outdoors or in a well-ventilated area. Observe good industrial hygiene practices. Avoid release to the environment.

#### 7.2. Conditions for safe storage, including any incompatibilities
Store in accordance with local/regional/national/international regulation. Keep container tightly closed in a cool, well-ventilated place. Store locked up. Store away from incompatible materials. Protect from moisture. Store in closed original container at temperatures between 2°C and 8°C.

#### 7.3. Specific end use(s)
Industrial grade instant adhesive.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>UK. EH40 Workplace Exposure Limits (WELs)</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl-2-cyanoacrylate (CAS 7085-85-0)</td>
<td>STEL</td>
<td>1.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.3 ppm</td>
</tr>
</tbody>
</table>

**Recommended monitoring procedures**
Follow standard monitoring procedures.

**Derived no effect levels (DNELs)**
Not available.

**Predicted no effect concentrations (PNECs)**
Not available.

#### 8.2. Exposure controls

**Appropriate engineering controls**
Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

**Individual protection measures, such as personal protective equipment**

- **General information**
  Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

- **Eye/face protection**
  Wear safety glasses with side shields (or goggles). Eye protection should meet standard EN 166.

- **Skin protection**
  - **Hand protection**
    Wear suitable gloves tested to EN374. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
  - **Other**
    Normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory protection

Not normally needed. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use filter type A according to EN 14387.

Thermal hazards

Not applicable.

Hygiene measures

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Private clothes and working clothes should be kept separately.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid.
Form: Liquid.
Colour: Colourless, clear.

Odour

Sharp. Characteristic.

Odour threshold

Not available.

pH

Not applicable.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

150 °C (302 °F)

Flash point

85.0 °C (185.0 °F) Closed cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Vapour pressure

0.29 mm Hg

Vapour density

Not available.

Relative density

1.06 g/ml

Solubility(ies)

Insoluble in water.

Partition coefficient (n-octanol/water)

No data available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

3 / 120 / 300 / 1000 / 2500 mPa:s

Explosive properties

Not explosive.

Oxidising properties

Not oxidising.

9.2. Other information

Dynamic viscosity

2.6 mPa.s (20 °C (68 °F))

Explosive limit

Not available.

Molecular formula

C6H7NO2

Molecular weight

125.13 g/mol

Solubility (other)

Completely soluble in acetone.

VOC

0 (Hylomar Test Method 1.1A Determination of Volatile Matter)

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Material is stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts exothermically with water.

10.4. Conditions to avoid

Heat, sparks, flames.
10.5. Incompatible materials

10.6. Hazardous decomposition products
Carbon oxides. Nitrogen oxides.

SECTION 11: Toxicological information

General information
Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation
In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

Skin contact
Causes skin irritation.

Eye contact
Causes serious eye damage.

Ingestion
It is almost impossible to swallow cyanoacrylates.

Symptoms
Skin irritation. May cause redness and pain. Irritation of eyes. In high concentrations, vapours may be irritating to the respiratory system.

11.1. Information on toxicological effects

Acute toxicity
Not expected to be acutely toxic.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
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</tr>
<tr>
<td>Dermal</td>
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<tr>
<td>LD50 Rabbit</td>
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<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50 Rat</td>
<td>&gt; 5000 mg/kg</td>
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</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/eye irritation
Causes serious eye damage.

Respiratory sensitisation
Based on available data, the classification criteria are not met.

Skin sensitisation
Based on available data, the classification criteria are not met.

Germ cell mutagenicity
Based on available data, the classification criteria are not met.

Carcinogenicity
Due to lack of data the classification is not possible.

Reproductive toxicity
Due to lack of data the classification is not possible.

Specific target organ toxicity - single exposure
May cause respiratory irritation.

Specific target organ toxicity - repeated exposure
Due to lack of data the classification is not possible.

Aspiration hazard
Due to lack of data the classification is not possible.

Mixture versus substance information
No data available.

Other information
No other specific acute or chronic health impact noted.

SECTION 12: Ecological information

12.1. Toxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Persistence and degradability
Expected to be readily biodegradable.

12.3. Bioaccumulative potential
No data available.

Partition coefficient
No data available.

n-octanol/water (log Kow)

Bioconcentration factor (BCF)
Not available.

12.4. Mobility in soil
No data available.

Mobility in general
The product is insoluble in water.

12.5. Results of PBT and vPvB assessment
This substance does not meet vPvB / PBT criteria of Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Residual waste: Do not discharge into rivers, lakes, mountains, etc. because the product may affect the environment.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code: 08 04 09*  
The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information: Do not discharge into drains, water courses or onto the ground. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

### ADR

14.1. UN number: UN3334  
14.2. UN proper shipping name: Aviation regulated liquid, n.o.s.

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>9</td>
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<td>Subsidiary risk</td>
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<td>Hazard No. (ADR)</td>
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<tr>
<td>Tunnel restriction code</td>
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</tbody>
</table>

14.4. Packing group: NOT SUBJECT TO ADR
14.5. Environmental hazards: No.
14.6. Special precautions for user: Not applicable.

### RID

14.1. UN number: UN3334  
14.2. UN proper shipping name: Aviation regulated liquid, n.o.s.

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>9</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
</tbody>
</table>

14.4. Packing group: NOT SUBJECT TO RID
14.5. Environmental hazards: No.
14.6. Special precautions for user: Not applicable.

### ADN

14.1. UN number: UN3334  
14.2. UN proper shipping name: Aviation regulated liquid, n.o.s.

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
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<td>Class</td>
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<td>Subsidiary risk</td>
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<td>Label(s)</td>
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14.4. Packing group: NOT SUBJECT TO ADN
14.5. Environmental hazards: No.
14.6. Special precautions for user: Not applicable.

### IATA

14.1. UN number: UN3334  
14.2. UN proper shipping name: Aviation regulated liquid, n.o.s.

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>9</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
</tbody>
</table>

14.4. Packing group: III
14.5. Environmental hazards: No.
14.6. Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

### IMDG

14.1. UN number: UN3334  
14.2. UN proper shipping name: AVIATION REGULATED LIQUID, N.O.S.

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>9</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
</tbody>
</table>
14.4. Packing group Not available.
14.5. Environmental hazards
   Marine pollutant No.
   EmS Not available.
14.6. Special precautions for user Not applicable.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Authorisations

Restrictions on use
- Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended Not listed.

Other EU regulations
- Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended Not listed.

Other regulations
- Other regulations This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.

National regulations
- National regulations Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

15.2. Chemical safety assessment
- For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

List of abbreviations
- DNEL: Derived No-Effect Level.
- PNEC: Predicted No-Effect Concentration.
- PBT: Persistent, bioaccumulative and toxic.
- vPvB: Very Persistent and very Bioaccumulative.
- HSDB® - Hazardous Substances Data Bank

References
- Information on evaluation method leading to the classification of mixture The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Training information
Follow training instructions when handling this material.

Disclaimer
The information in the sheet was written based on the best knowledge and experience currently available.