

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	+1-760-476-3961 (US)
	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



Signal word 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 EUH202 - Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

2.3. Other hazards 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

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Ethyl-2-cyanoacrylate	100	7085-85-0 230-391-5	-	607-236-00-9	
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

UK. EH40 Workplace Exposure Limits (WELs)

Material	Type	Value
Ethyl-2-cyanoacrylate (CAS 7085-85-0)	STEL	1.5 mg/m ³
		0.3 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

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 Water, moisture. Amines. Alkalis. Alcohols.

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.

Product	Species	Test Results
Ethyl-2-cyanoacrylate (CAS 7085-85-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg

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 n-octanol/water (log Kow) No data available.

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.
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
Hazard No. (ADR)	Not available.
Tunnel restriction code	Not available.
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.
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
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.
14.3. Transport hazard class(es)	
Class	NOT SUBJECT TO ADN
Subsidiary risk	-
Label(s)	NOT SUBJECT TO ADN
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.
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	No.
ERG Code	9A
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.
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-

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

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed.

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

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

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.

References

HSDB® - Hazardous Substances Data Bank

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.

**Full text of any H-statements
not written out in full under
Sections 2 to 15**

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.