

SAFETY DATA SHEET according to (EC) No 1907/2006 (REACH)

HQ Free Grade

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Relevant identified uses of the substance or mixture and uses advised against:

Intended use: Cyanoacrylate adhesive

Details of the supplier of the safety data sheet:

2. Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin irritation	H315 Causes skin irritation.	Category 2
Serious eye irritation	H319 Causes serious eye irritation	Category 2
Specific target organ toxicity-single exposure	H335 May cause respiratory irritation	Category 3

Label elements (CLP): Labeling according to Regulation (EC) No 1272/2008

Hazard pictogram:



Single word: Warning

Hazard statement: H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

Precautionary statement: P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P350 If on skin: Wash with plenty of soap and water.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards:

None if used properly.

3. Composition/information on ingredients

General chemical description:

Cyanoacrylate Adhesive

Base substances of preparation:

Cyanoacrylate

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EINECS Number Index Number REACH-Reg No.	content	Classification
Ethyl 2-cyanoacrylate 7085-85-0	230-391-5 607-236-00-9 01-2119527766-29-0002	>80-<100%	Skin irritation 2 H315 Serious eye irritation 2 H319 Specific target organ toxicity – single exposure 3 H335

For full text of the H – statements and other abbreviations see section 16 “Other information”.

4. First aid measures

Description of first aid measures

Inhalation: Don't breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).
Evacuate from further exposure. If unconsciousness occurs, seek immediate medical assistance and call a physician.
If the breath has stopped, have artificial respiration. If breathing difficulty occurs, have oxygen inhalation.

Skin contact: Instantly wash affected parts of the body with water and soap and rinse thoroughly.
Seek medical treatment and present this data sheet.

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

Ingestion: Ensure that breathing passages are not obstructed. The product will polymerize immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth.

Most important symptoms and effects, both acute and delayed

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Eye: Irritation, conjunctivitis.

Skin: Redness, inflammation.

Respiratory: Irritation, coughing, shortness of breath, chest tightness.

Indication of any immediate medical attention and special treatment needed

In the case of lung irritation: Primary treatment using corticoide spray, eg. Auxiloson spray, Pulmicort-dosage-spray. (Auxiloson and Pulmicort are registered trademarks).

5. Firefighting measures

Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, dry powder, carbon dioxide, water spray jet.

Unsuitable extinguishing media: High volume water jet.

Special hazards arising from the substance or mixture

In the event of fire the following can be released: Nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂).

Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Firefighters should wear positive pressure self-contained breathing apparatus (SCBA). Firefighting operations, rescue and cleaning work under effect of combustion and smolder gases just may be done with breathing apparatus. Dispose of contaminated extinction water according to official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Use personal protective clothing.

For emergency responders: Ensure adequate ventilation. Avoid contact with eyes or skin.

Environmental precautions

If leakage occurs, dam up. Resolve leaks if this possible without risk. Prevent surface and ground-water infiltration, as well as ground penetration. Prevent from entering drainage system. If accidental entry into drainage system occurs, inform responsible authorities.

Methods and material for containment and cleaning up

Do not use cloth for clean up. Flood with water to complete polymerization and scrape up the polymer. Solid material can be disposed as non-hazardous waste.

Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

7. Handling and storage

Precautions for safe handling

Recommendations: Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mists. Wash thoroughly after handling. Avoid contact with fabric and paper goods. Contact with these may cause polymerization that can generate smoke and strong irritating vapors, and can cause thermal burns.

Advice on general occupational hygiene: Wash hands and face before eating.

Conditions for safe storage, including any incompatibilities

Keep in a cool, well-ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Incompatible products: Do not store together with alkalis.

Specific end use(s)

Cyanoacrylate

8. Exposure controls/ personal protection

Control parameters

Valid for Great Britain

Basis UK EH40 WELs

Ingredient	ppm	mg/m ³	Type	Remarks
Ethyl 2-cyanoacrylate 7085-85-0	-	-	TWA (8 h)	EH40 WEL
Ethyl 2-cyanoacrylate 7085-85-0	0.3	1.5	Short Term Exposure Limit STEL (15 min)	EH40 WEL

Exposure controls

Appropriate Engineering
Controls:

If general ventilation is insufficient to maintain vapor concentration below established exposure limits, use protective downdraft exhaust ventilation.

Individual protection
measures

General protective and
hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Eye/Face protection

Safety glasses with side shields or chemical splash goggles.

Skin protection

Do not use PVC, rubber, cotton or nylon gloves.

Hand protection

Tested protective gloves are to be worn: Suitable material: Synthetic rubber gloves. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Respiratory protection

If there is a potential to exceed exposure limits, use an approved respirator.

Environmental exposure
controls

Do not empty into drains or the aquatic environment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:

Liquid, black

Odor:

Sharp,

Odor threshold:

irritating Not

pH:

available. Not

Melting point/freezing point:

applicable -

Initial boiling point and boiling range:

22 °C >200 °C

Flash point:

80-93.4 °C (Method: Tag closed Cup)

Evaporation rate (Butyl acetate =1):

Not available.

Flammability:

Not available.

Upper/lower flammability:

Not available

Vapor pressure (25 °C):	Less than 0.2 mmHg
Vapor density (Air=1):	Approximately 3
Relative density:	1.1 g/cm ³
Solubility:	Polymerizes in presence of water.
Partition coefficient:	Not applicable
Auto-ignition temperature:	485 °C
Decomposition temperature:	Not applicable
Viscosity:	250-450 cps.
Explosive properties:	Product is not explosive.
Oxidizing properties:	Product is not oxidizing.

Other information

Specific gravity:	1.10 (25 °C)
VOC content:	Less than 2%; 20g/l (California SCAQMD Method 361B)

10. Stability and reactivity

Reactivity

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis, oxidizing agents and alcohols. Stable under recommended storage conditions.

Chemical stability

The product is in compliance with the storage and processing conditions, chemically stable.

Possibility of hazardous reactions

Danger of polymerization. Polymerization with evolution of heat.

Conditions to avoid

Spontaneous polymerizations.

Incompatible materials

Water, amines, alkalis, oxidizing agents and alcohols.

Hazardous decomposition products

Carbon monoxide and carbon dioxide. Nitrous oxides (NO_x).

11. Toxicological information

Information on toxicological

effects Oral toxicity:

Cyanoacrylates are considered to have relatively low toxicity. Acute oral LD50 is >5000 mg/kg (rat). It is almost impossible to swallow as it rapidly polymerizes in the mouth.

Inhalative toxicity:

Irritating to respiratory system. Prolonged exposure to high concentrations of vapor may lead to chronic effects in sensitive individuals. In dry atmosphere with <50% humidity, vapor may irritate the eyes and respiratory system.

Skin irritation:

Irritating to the skin. Bonds skin in seconds. Considered to be of low toxicity: acute dermal LD50 (rabbit) >2000mg/kg. Due to polymerization at the skin surface allergic reaction is unlikely to occur.

Eye irritation:

Irritating to eyes. Liquid product will bond eyelids. In a dry atmosphere (RH<50%) vapor may cause irritation and lachrymatory effect.

Acute toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
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CAS-No.	Type		application	time		
Ethyl 2-cyanoacrylate 7085-85-0	LD50	>5000mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
	LD50	>2000mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	Slightly irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation/Corrosion)

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	Slightly irritating	72 h	rabbit	OECD Guideline 405 (Acute Eye Irritation/Corrosion)

Hazardous components CAS-No.	Result	Type of study/ Route of administration	Metabolic activation/ Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	negative negative negative	Bacterial reverse mutation assay (e.g. Ames test) mammalian cell gene mutation assay in vitro mammalian chromosome aberration test	with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Biological and chemical oxygen demands (BOD and COD) are insignificant. Do not empty into drains/ surface water/ ground water. Do not allow uncontrolled leakage of product into the environment.

Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Ethyl 2-cyanoacrylate 7085-85-0		aerobic	57%	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

Bioaccumulative potential

Hazardous components CAS-No.	LogKow	Bioconcentration Factor (BCF)	Temperature	Method
Ethyl 2-cyanoacrylate 7085-85-0	0.776		22 °C	EU Method A. 8 (Partition Coefficient)

Mobility in soil

Cured adhesives are immobile.

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

Other adverse effects

No further relevant information available.

13. Disposal considerations**Waste treatment methods**

Waste treatment containers:

Dispose according local, province/state, country's governmental regulations.

Appropriate methods of waste treatment of substance:

Cured adhesive: Disposal of as water insoluble non-toxic solid chemical in authorized landfill or incinerate under controlled conditions.

Appropriate methods of waste treatment of packaging:

After use, tubes, cartons, and bottles containing residual product should be disposed of as chemically contaminated waste in an authorized legal land fill site or incinerated. Disposal must be made according to official regulations.

Sewage disposal:

Dispose according local, province/state, country's governmental regulations.

Special precautions:

Not available.

Relevant community/national/regional provisions:

Not available.

14. Transport information

	ADR/RID	AND/ADNR	IMDG	IATA
14.1 UN Number	UN 1993	Not available	Not available	UN 3334
14.2 UN Proper Shipping Name	COMBUSTIBLE LIQUIDS, N.O.S. (Cyanoacrylate ester)	Not available	Not available	AVITATION REGULATED LIQUID, N.O.S. (Cyanoacrylate ester)
14.3 Transport hazard class(es)	3	Not available	Not available	9
14.4 Packing group	None	Not available	Not available	None
14.5 Environmental hazards	Not available	Not available	Not available	Not available
14.6 Special precautions for user	Not available	Not available	Not available	Not available

15. Regulatory information**Safety, health and environmental regulations/ legislation specific for the substance or mixture**

EU regulations:

Regulation (EC) No 1907/2006

Regulation (EC) No 1272/2008

Authorizations and/or Restrictions on Use	This product is not included on the Candidate List of
Authorizations:	Substances of Very High Concern for Authorization
Restrictions on use:	The product is not subject to restrictions under
	Annex XVII of REACH Regulation.

Chemical safety assessment

A chemical safety assessment has not been carried out.

16. Other information

The labeling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

Relevant H-phrases (Number and full text):	H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
Relevant P-phrases (Number and full text):	P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302+P350 If on skin: Wash with plenty of soap and water. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties. Substances have been classified in accordance with Regulation (EC) 1272/2008 (CLP).

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