

Safety Data Sheet

BELI-CA zero

AdhesionsTechnics
Klebt einfach besser Simply amazing glue

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

Trade name: BELI-CA zero
Intended use: Cyanoacrylate adhesive
Company name: AdhesionsTechnics Gregor Kunsemüller
Melonenstr.29
70619 Stuttgart
Emergency information: +49-151-11097700 (German, English)

2. Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi - Irritant

R36/37/38 Irritating to eyes, respiratory system and skin.

Information concerning particular hazards for human and environment

The product has to be labelled due to the calculation of the "General Classification guideline for preparations of the EU" (Directive 1999/45/EC of the European Parliament on of the Council) in the latest version.

Classification system

The classification is in line with current EC lists (Council Directive 67/548/EEC). It is supplemented with information from technical Literature and by information furnished by the supplier.

Label elements

Labelling according to EU guidelines

The product is classified and labelled in accordance with EC Directives / Chemicals (Hazard, Information and Packaging for Supply) (CHIP) Regulations.

Code letter and hazard designation of product



Xi Irritant

Risk phrases

R36/37/38 Irritating to eyes, respiratory system and skin.

Safety phrases

S23 Do not breathe 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.

Special labelling of certain preparations

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

Contains Hydroquinone, Phthalic anhydride. May produce an allergic reaction.

Other hazards

None if used according to specifications.

Results of PBT and vPvB assessment

PBT not applicable

vPvB not applicable

3. Composition / information on ingredients

General chemical description: Cyanoacrylate adhesive

Hazardous components	Content	Classification
Ethyl-2-cyanoacrylate CAS: 7085-85-0 EINECS: 230-391-5	>80 - <100%	<p>☒ Xi R36/37/38</p> <p>⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2, H319</p>
Hydroquinone CAS: 123-31-9 EINECS: 204-617-8	>0,1 - <0,5%	<p>☒ Xn R22; Xi R41; ☒ N R50; carcinogenic, Kat. 3, R40; mutagen, Kat. 3, R68</p> <p>R43</p> <p>⚠ Skin. Sens. 1, H317; Acute Tox. 4, H302; ☒ Carc. 2, H351; Muta. 2, H341; ☒ Eye Dam. 1, H318; ☒ Aquatic Acute 1, H400</p>
Phthalic anhydride CAS: 85-44-9 EINECS: 201-607-5	>0,1 - ≤0,5%	<p>☒ Xn R22; Xi R37/38; Xi R41</p> <p>R42/43</p> <p>⚠ Acute Tox. 4, H302; Skin Sens. 1, H317; STOT SE 3, H335; Skin. Irrit. 2, H315; ☒ Resp. Sens. 1, H334; ☒ Eye Dam. 1, H318</p>

For full text of the Statements / Phrases indicated by codes see chapter 16 'Other Information'.

Substances without classification may have community workplace exposure limits available.

4. First aid measures

General information

No further relevant information available.

Inhalation

Fresh air; seek medical attention, if complaint persists

Skin contact

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 polymerization. In rare cases a large amount will generate enough heat to cause a burn. Burns should be treated normally after the adhesive has been removed from the skin.

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 force the lips apart with any other kind of action.

Eye contact

If the eye is bonded closed, release eyelashes by covering with wet pads soaked with warm water. 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.

Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate or the like are trapped behind the eyelid causing any abrasive damage.

Swallowing

Ensure carefully that breathing passages are not obstructed. The product will polymerize immediately in the mouth, hence it is almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth within several hours.

Information for physician

Most important symptoms and effects, both acute and delayed

Eyes: Irritation, pink eye (conjunctivitis)

Skin: Redness, inflammation

Respiratory: Irritation, coughing, shortness of breath, symptoms of stenocardia / chest tightness (angina pectoris)

Indication of any immediate medical attention and special treatment needed

No further relevant information available

5. Fire fighting measures

Suitable extinguishing media

All common extinguishing agents (CO₂, extinguishing powder, fine water spray/haze, foam) are suitable.

Extinguishing media, which must not be used for safety reasons

None known.

Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides, irritating organic vapours.

Advice for fire fighters - protective equipment

Wear self-contained breathing apparatus. Wear protective equipment.

Additional information

No further relevant information available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Note instruction in chapter 8.

Environmental precautions

Do not empty into drains / surface water / ground water / sewage system. Note instructions in chapter 7.

Clean-up methods

Do not use cloths for mopping up. Flood with water to enforce polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

7. Handling and storage

Precautions for safe handling

Low level Ventilation is recommended when using large volumes. Use of dispensing equipment is recommended to minimize the risk of skin or eye contact.

Information about protection against explosions and fires

No special measures required.

Conditions for safe storage, including incompatibilities

Storage - Requirements to be met by storerooms and containers: Store in original containers between 2°C and 8°C (35.6 - 46.4°F).

Storage - Information about storage in one common storage facility: No special measures required.

Storage - Further information about storage conditions: Keep container tightly sealed. Store under cool, dry conditions.

Specific end use(s)

No further relevant information available.

8. Exposure controls / personal protection

Components with specific control parameters for workplace

Valid for Great Britain

Ingredient	ppm	mg/m ³	type	Category	remarks
Ehtyl-2-cyanoacrylate, CAS: 7085-85-0	0,3	1,5	Short term exposure limit (STEL):		EH40 WEL
Phthalic anhydride, CAS: 85-44-9		12	Short term exposure limit (STEL):		EH40 WEL
Phthalic anhydride, CAS: 85-44-9		4	Time weighted average (TWA):		EH40 WEL
Hydroquinone, CAS: 123-31-9		0,5	Time weighted average (TWA):		EH40 WEL

Respiratory protection

Ensure adequate ventilation.

Hand protection

The use of chemical resistant gloves such as Nitrile is recommended. In cases, when a prolonged skin contact or using large volumes is due, the use of polyethylene / polypropylene gloves is recommended. Please note that in practice the working life of chemical resistant gloves may be considerably reduced by many influencing factors (e.g. temperature, manufacturer, environmental conditions). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed the gloves should be replaced.

Eye protection:

Wear protective glasses.

General protection and hygiene measures:

Good industrial hygiene practices should be observed. Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

9. Physical and chemical properties

General characteristics

Appearance	liquid black
Odour	irritating

Physical and chemical properties

Flash point	80 - 93°C (176 - 199.4°F)
Ignition temperature / spontaneous combustion	260°C (500°F) / product does not undergo spontaneous combustion
Danger of explosion	product is not explosive
Density (20°C, 68°F)	1.1 g/cm ³
Viscosity dynamic (20°C / 68°F)	no data available
Solubility qualitative (20°C, 68°F, solvent water)	polymerises in presence of water
VOC-Content (VOCV 814.018 VOC regulation CH)	< 3.00%
VOC-Content (EC)	< 3.00%

10. Stability and reactivity

Reactivity

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

Chemical stability - thermal decomposition, conditions to avoid

Stable, no decomposition, if used according to specifications.

Possibility of hazardous reactions

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

Conditions to avoid

Stable, if used according to specifications.

Incompatible materials

No further relevant information available.

Hazardous decomposition products

No dangerous decomposition products known.

11. Toxicological information

General toxicological information

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations (Directive 1999/45/EC) in the latest version:

Irritant

Oral toxicity

Cyanoacrylates are considered to have relatively low toxicity. It is almost impossible to swallow as the product rapidly polymerizes in the mouth.

Inhalative toxicity

Irritating to respiratory system.

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

Skin irritation

Irritating to skin.

Liquid product bonds skin in seconds. Considered to be low toxic. Due to polymerization at the skin surface allergic reaction is unlikely to occur.

Eye irritation

Irritating to eyes.

Liquid product will bond eyelids in seconds. In a dry atmosphere with < 50% relative humidity vapours may irritate eyes and respiratory system.

Sensitizing

May cause sensitization by skin contact.

12. Ecological information

Toxicity

Hazardous component	Value type	Value [mg/l]	Study	Exposure time	Species	Method
Hydroquinone CAS: 123-31-9	LC50	0,17	Fish	96h	Banio rerio	OECD Guidline 203 (Fish, Acute Toxicity Test)
Hydroquinone CAS: 123-31-9	EC50	0,29	Daphina	48h	Daphina magna	
Hydroquinone CAS: 123-31-9	EC50	0,335	Algae	3d	Pseudokirchnerella subcapitata	OECD Guidline 201 (Alga, Groth Inhibition Test)
Phthalic anhydrid CAS: 85-44-9	LC50	313	Fish	48h	Leuciscus idus	

Persistence and degradability

No further relevant information available.

Bioaccumulative potential

No further relevant information available.

Mobility in soil

Cured adhesive is immobile.

General ecological information

Biological and Chemical Oxygen Demands (BOD and COD) are insignificant. Do not empty into drains / surface water / ground water.

Results of PBT and vPvB assessments

PBT not applicable

vPvB not applicable

Other adverse effects

No further relevant information available.

13. Disposal considerations

Waste treatment - recommendation

Cured adhesive: dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions. Dispose of in accordance with local and national regulations. Contribution of this product to waste is very insignificant in comparison to article in which it is used.

EWC 08 04 09: waste adhesives and sealants containing organic solvents or other dangerous substances

Uncleaned containers / packaging material

Liquid residual product / packaging with residual product must not be disposed with household waste. Dispose of packaging according to regulations on the disposal of packaging.

Packaging that cannot be cleaned are to be disposed in uniform manner as the product.

14. Transport information

ADR	no dangerous goods
RID	no dangerous goods
ADN	no dangerous goods
IMDG	no dangerous goods
IATA	
Class	9 Miscellaneous
Packaging group	III
Packaging instruction (passenger)	964
Packaging instruction (cargo)	964
UN-No.	UN3334
Label	9
UN proper shipping name	Aviation regulated liquid, n.o.s. (Cyanoacrylate ester) Primary packs containing less than 500ml are unregulated by this mode of transport and may be shipped unrestricted.
Remarks	not applicable

15. Regulations

Chemical safety assessment

A chemical safety assessment has not been carried out.

16. Other information

The labelling of the product is indicated in chapter 2.

Full text of the Hazard statements indicated by GHS-codes in this safety data sheet.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.

Full text of the risk phrases indicated by codes in this safety data sheet.

R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37/38	Irritating to respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R41	Risk to serious damage to eyes
R42/43	May cause sensitization by inhalation and skin contact.
R43	May cause sensitization by skin contact.
R50	Very toxic to aquatic organisms.
R68	Possible risk of irreversible effects.

Further information:

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.

This Safety Data Sheet was prepared in accordance with Council Directive 67/548(EEC and its subsequent amendments and Commission Directive 1999/45/EC.