

BONDAN SE05

Revision date: 05.02.2021
Version: 1.002



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

1.1 Product identifier

Trade name BONDAN SE05

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

General use Adhesive and sealant.

1.3 Details of the supplier of the safety data sheet

Drei Bond GmbH · Carl-Zeiss-Ring 13 · 85737 Ismaning
t +49 (0)89 96 24 27-0 · f +49 (0)89 96 24 27-19
Department responsible for information: info@bondan.de · t +49 89 962427-0

1.4 Emergency telephone number

Drei Bond GmbH	Tel. +49 (0)89 96 24 27-0
Carl-Zeiss-Ring 13	During office hours
85737 Ismaning	Mo – Do 9:00 am – 05:00 pm
	Fr 8:00 am – 3:00 pm

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Physical hazards	Not Classified
Health hazards	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335
Environmental hazards	Not Classified

2.2 Label elements

Labelling CLP:



Signal word

Warning

Hazard statements

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statements

P101

If medical advice is needed, have product container or label at hand.

P271

Use only outdoors or in a well-ventilated area.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352

IF ON SKIN: Wash with plenty of water.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P405

Store locked up.

P501

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

Special labelling

EUH202

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

Contains: ETHYL-2-CYANOACRYLATE



Supplementary precautionary statements

P264	Wash contaminated skin thoroughly after handling.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see instructions on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well ventilated place. Keep container tightly closed.

2.3 Other hazards

No particular dangers to mention.

Results of the PBT and vPvB assessment:

This product is not identified as a PBT/vPvB substance.

3 Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

Ingredient	Designation	Content	Classification
CAS number: 7085-85-0 EC number: 230-391-5 REACH registration number: 01-2119527766-29-XXXX	ETHYL-2-CYANOACRYLATE	70 - 90 %	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335
CAS number: 123-31-9 EC number: 204-617-8	HYDROQUINONE	< 0.1 %	Carc. 2 - H351 Muta. 2 - H341 Acute Tox. 4 - H302 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Acute 1 - H400

The full text for all hazard statements is displayed in Section 16.



4 First aid measures

4.1 Description of first aid measures

Inhalation	Move the exposed person to fresh air. Get medical attention if any discomfort continues.
Ingestion	On contact, immediate bonding of mouth could occur. Do not induce vomiting. Get medical attention.
Skin contact	On contact, immediate bonding of the skin will occur. No attempt should be made to remove material from skin or to remove contaminated clothing, as the bonded skin can be easily torn. Wash skin thoroughly with soap and water.
Eye contact	Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. If adhesive bonding occurs, do not force eyelids apart. Apply a pad soaked in warm water and allow the eyelids to separate. Get medical attention. Cured adhesive will not bond well to surface of eye, but corneal damage from abrasion may result.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation	Irritation of nose, throat and airway. Irritation of the throat can be associated with a feeling of tightness in the chest.
Ingestion	On contact, immediate bonding of mouth could occur. There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.
Skin contact	Skin contact may cause redness and irritation.
Eye contact	There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.
Delayed / immediate effects	Immediate effects can be expected after short-term exposure.



4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor	SKIN BONDING. Prise the skin apart slowly working from the edge of the bonded area. This can be eased by using warm soapy water.
	EYE BONDING. DO NOT force eyelids apart. Apply a pad soaked in warm water and allow the eye to separate itself.

5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO ₂), dry extinguishing powder, alcohol resistant foam, atomized water. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.
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5.2 Special hazards arising from the substance or mixture

Specific hazards	Cloths used to wipe up spills may cause rapid polymerization that could generate sufficient heat to ignite the cloth.
Hazardous combustion products	Decomposes upon heating to release toxic fumes of nitrogen oxides, carbon monoxide, carbon dioxide, and hydrogen cyanide.

5.3 Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours.
Special protective equipment for firefighters	Use air-supplied respirator, gloves and protective goggles.



6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. Provide adequate ventilation.

6.2 Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3 Methods and material for containment and cleaning up

Clean-up procedures Small spills: wipe up with cloth. Immediately soak cloth with water to polymerize the adhesive. Caution! Cloth containing adhesive may undergo autoignition if not soaked with water Large spills: flood area with water. When cured, remove film with a scraper.

Should curing not be possible, absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4 Reference to other sections

Collect and dispose of spillage as indicated in Section 13.

7 Handling and storage

7.1 Precautions for safe handling

Usage precautions Ensure adequate ventilation of the working area. Avoid contact with skin and eyes. Always replace cap after use.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place. Keep containers upright.

7.3 Specific end use(s)

Specific end use(s) Adhesive

8 Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

ETHYL 2-CYANOACRYLATE (CAS: 7085-85-0)

Short-term exposure limit: WEL 0.3 ppm, 1.5 mg/m³

WEL = Workplace Exposure Limit

DNEL

Workers - Inhalation; Long term systemic effects: 9.25 mg/m³

Workers - Inhalation; Long term local effects: 9.25 mg/m³

PNEC

Technically not feasible.

HYDROQUINONE (CAS: 123-31-9)

Time weighted average limit (8 h): WEL 0.5 mg/m³

WEL = Workplace Exposure Limit

8.2 Exposure controls

Protection equipment



Appropriate engineering controls

Normal (mechanical) room ventilation should be adequate for small volumes. For higher volume activities, or if needed for worker comfort, local mechanical exhaust should be provided.



Eye/face protection	Use approved safety goggles or face shield. Personal eye protection should conform to EN 166.
Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. Gloves should conform to EN 374. For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm The selected gloves should have a breakthrough time of at least 0.5 hours. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm The selected gloves should have a breakthrough time of at least 8 hours. The breakthrough time for any glove material may be different for different glove manufacturers. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	Uniforms, coveralls, or a lab coat should be worn.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Wash promptly if skin becomes contaminated. Use of good industrial hygiene practices is required.
Respiratory protection	Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Organic vapour filter, Type A (EN14387).



9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	liquid
Colour	colourless/transparent
Odour	irritating odour
pH	not applicable
Melting point/range	not determined
Boiling point and range	150 °C
Flash point	87 °C
Evaporation rate	not determined
Upper/lower flammability or explosive limits	not determined
Vapour pressure	not determined
Vapour density	not determined
Density	1.05 g/cm ³
Solubility(ies)	Insoluble in water. Hardens in contact with water. Miscible with the following materials: Organic solvents
Partition coefficient	not determined
Auto-ignition temperature	500 °C
Decomposition temperature	not determined
Viscosity @ 25 °C	1800 – 2200 mPa·s
Explosive properties	not determined
Oxidizing properties	not determined
VOC content	20 g/l

9.2 Other information

10 Stability and reactivity

10.1 Reactivity

Stable under recommended transport or storage conditions.

The product reacts with water and will generate heat.

10.2 Chemical stability

Stable at normal ambient temperatures and when used as recommended.



10.3 Possibility of hazardous reactions

Reactions with the following materials may generate heat: Water, alcohols, alkalis, amines

10.4 Conditions to avoid

Do not add water directly to the product. It may cause a violent reaction.

10.5 Incompatible materials

water, amines, alkalis, alcohols, strong oxidising agents, strong acids

10.6 Hazardous decomposition products

Heating may generate the following products: Toxic gases/vapours/fumes of: Carbon dioxide (CO₂), carbon monoxide (CO), nitrous gases (NO_x), hydrogen cyanide (HCN).

11 Toxicological information

11.1 Information on toxicological effects

Toxicological effects

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Other health effects

Under EU legislation the cyanoacrylates do not require classification as sensitisers and the rapid polymerisation caused on contact with moisture makes this unlikely. However the American Conference of Governmental Industrial Hygienists (ACGIH) has reported some limited evidence of skin and respiratory sensitisation. May cause allergic reactions in susceptible people.

Inhalation

Irritating to respiratory system. Irritation of the throat can be associated with a feeling of tightness in the chest.



Ingestion	On contact, immediate bonding of mouth could occur. There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.
Skin contact	Irritating to skin. On contact, immediate bonding of the skin will occur.
Eye contact	Irritating to eyes. There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.
Delayed / immediate effects	Immediate effects can be expected after short-term exposure.

Toxicologic information on the product

Skin corrosion/irritation

Calculated hazardous

Serious eye damage/irritation

Calculated hazardous

STOT- single exposure

Calculated hazardous

Skin sensitisation

Classified as non-hazardous because of lack of data.

Germ cell mutagenicity

Classified as non-hazardous because of lack of data.

Reproductive toxicity

Classified as non-hazardous because of lack of data.

STOT- repeated exposure

Classified as non-hazardous because of lack of data.

Aspiration hazard

Classified as non-hazardous because of lack of data.



Toxicological effects on ingredients

ETHYL 2-CYANOACRYLATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0
Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.1
Species Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) not available

Skin corrosion/irritation

Animal data Dose: 0.5g, 24 hours, Rabbit: Slightly irritating

Serious eye damage/irritation

Serious eye damage/irritation Method: OECD 405, Rabbit: Irritating to eyes

Skin sensitisation

Skin sensitization Guinea pig: Not sensitising

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative
Chromosome aberration: Negative
Bacterial reverse mutation test: Negative

Carcinogenicity

Carcinogenicity No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Reproductive toxicity - fertility technically not feasible

Reproductive toxicity - development technically not feasible

Specific target organ toxicity - single exposure

STOT - single exposure no information available



Specific target organ toxicity - repeated exposure

STOT - repeated exposure no information available

Aspiration hazard

Aspiration hazard no information available

HYDROQUINONE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 720

Species Rat

12 Ecological information

Ecotoxicity no data available

12.1 Toxicity

Toxicity The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Acute aquatic toxicity

Acute toxicity - aquatic no data available

Invertebrates

Acute toxicity - aquatic plants no data available

Acute toxicity - terrestrial no data available

12.2. Persistence and degradability

Persistence and degradability biodegradable

Biological oxygen demand not known

Chemical oxygen demand not known





12.3 Bioaccumulative potential

Bioaccumulative potential no bioaccumulation potential

Ecological information on ingredients

ETHYL 2-CYANOACRYLATE

Partition coefficient log Kow: 0.776

12.4 Mobility in soil

Mobility Readily absorbed into soil.

12.5 Results of PBT and vPvB assessment

PBT identification This product is not identified as a PBT/vPvB substance.

12.6 Other adverse effects

Other adverse effects Negligible ecotoxicity.

13 Disposal considerations

13.1 Waste treatment methods

General information Waste disposal should be in accordance with existing Community, National and local regulations Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

Disposal methods Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

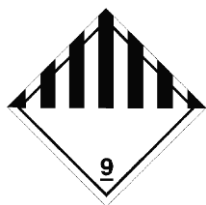
Waste class 08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances.



14 Transport information

Road transport notes	not classified
Rail transport notes	not classified
Sea transport notes	not classified
Air transport notes	Applies only to inner containers > 500ml.
14.1 UN number	
UN No. (ADR/RID)	not applicable
UN No. (IMDG)	not applicable
UN No. (ICAO)	3334
UN No. (ADN)	not applicable
14.2 UN proper shipping name	
Proper shipping name (ADR/RID)	not applicable
Proper shipping name (IMDG)	not applicable
Proper shipping name (ICAO)	AVIATION REGULATED LIQUID, N.O.S. (contains ethyl cyanoacrylate)
Proper shipping name (ADN)	not applicable
14.3 Transport hazard class(es)	
ICAO class/division	9

Transport labels



14.4 Packing group

ICAO packing group III

14.5 Environmental hazards

Environmentally hazardous substance/marine pollutant: no

14.6 Special precautions for user

None under normal conditions.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

15 Regulatory information

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

EU legislation Regulation (EC)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).



Guidance

Workplace Exposure Limits EH40.
Introduction to Local Exhaust Ventilation HS(G)37.
CHIP for everyone HSG228.
Approved Classification and Labelling Guide (Sixth edition) L131.
Safety Data Sheets for Substances and Preparations.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

16 Other information

Revision date: 05.02.2021

Supersedes date: 06.10.2020

Wording of the hazard statements under paragraph 2 and 3:

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.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.

Department issuing data sheet:

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

(The data on the hazardous ingredients were taken from the most recent safety data sheet from the supplier.)