

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### BEST-CA 221

Print date: 22.10.2014

Page 1 of 9

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

##### 1.1. Product identifier

BEST-CA 221

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

###### Use of the substance/mixture

Adhesives, sealants

###### Uses advised against

none/none

##### 1.3. Details of the supplier of the safety data sheet

Company name:	Best Klebstoffe GmbH & Co. KG	
Street:	Gewerbestraße 10-14	
Place:	D-86981 Kinsau	
Telephone:	+49 (0)08869 91384-0	Telefax: +49 (0)08869 91384-15
e-mail:	info@bestklebstoffe.de	
Internet:	www.bestklebstoffe.de	
Responsible Department:	Dr. Timo Gans-Eichler Chemieberatung Raesfeldstr. 22 48149 Münster	e-mail: info@tge-consult.de Tel.: +49 (0)251/924520-60 www.tge-consult.de

##### 1.4. Emergency telephone number:

+49 (0)08869 91384-0 (08:00 - 17:00)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

Indications of danger: Xi - Irritant  
R phrases:  
Irritating to eyes, respiratory system and skin.

###### GHS classification

Hazard categories:  
Skin corrosion/irritation: Skin Irrit. 2  
Serious eye damage/eye irritation: Eye Irrit. 2  
Specific target organ toxicity - single exposure: STOT SE 3  
Hazard Statements:  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.

##### 2.2. Label elements

###### Hazardous components which must be listed on the label

ethyl 2-cyanoacrylate

Signal word: Warning

Pictograms: GHS07



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### BEST-CA 221

Print date: 22.10.2014

Page 2 of 9

#### Hazard statements

H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.

#### Precautionary statements

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.  
 P312 Call a POISON CENTER/doctor if you feel unwell.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P501 Dispose of contents/container to in accordance with official regulations .

#### Special labelling of certain mixtures

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

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
230-391-5	ethyl 2-cyanoacrylate	80 - < 100 %
7085-85-0	Xi - Irritant R36/37/38	
607-236-00-9	Eye Irrit. 2, STOT SE 3, Skin Irrit. 2; H319 H335 H315	

Full text of R and H phrases: see Section 16.

#### Further Information

Product does not contain listed SVHC substances.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

##### After inhalation

Provide fresh air. In case of irritation of the respiratory tract seek medical advice.

##### After contact with skin

Take off immediately all contaminated clothing. After contact with skin, wash immediately with: Water and soap. In case of skin irritation, seek medical treatment.

##### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

##### After ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. Call

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### BEST-CA 221

Print date: 22.10.2014

Page 3 of 9

a POISON CENTER or doctor/physician.

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

No information available.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Foam. Carbon dioxide. Extinguishing powder.

##### **Unsuitable extinguishing media**

High power water jet.

#### **5.2. Special hazards arising from the substance or mixture**

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Hydrocyanic acid (hydrocyanic acid).

#### **5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical resistant suit.

#### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Extinguishing materials should be selected according to the surrounding area. Use water spray/stream to protect personnel and to cool endangered containers.

### SECTION 6: Accidental release measures

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

Provide adequate ventilation.  
Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eye and clothing.  
Wear personal protection equipment. (refer to chapter 8)

#### **6.2. Environmental precautions**

Do not empty into drains or the aquatic environment.

#### **6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
Treat the assimilated material according to the section on waste disposal.  
Clear contaminated area thoroughly.

#### **6.4. Reference to other sections**

See protective measures under point 7 and 8.

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Provide adequate ventilation.  
Wear suitable protective clothing. ( Refer to chapter 8. )

##### **Advice on protection against fire and explosion**

In case of fire and/or explosion do not breathe fumes. Usual measures for fire prevention.

##### **Further information on handling**

Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eye and clothing.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Keep container dry.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### BEST-CA 221

Print date: 22.10.2014

Page 4 of 9

#### Advice on storage compatibility

Do not store together with: Radioactive substances. Infectious substances. Organic peroxides. Oxidizing solids. Oxidizing liquids. Pyrophoric liquids and solids. flammable substances. Substances or mixtures which, in contact with water emit flammable gases. Non-combustible toxic substances.

#### Further information on storage conditions

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.

#### 7.3. Specific end use(s)

No information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7085-85-0	Ethyl cyanoacrylate	-	-		TWA (8 h)	WEL
		0.3	1.5		STEL (15 min)	WEL

#### Additional advice on limit values

To date, no national limit values exist.

#### 8.2. Exposure controls



#### Appropriate engineering controls

In case of open handling, use devices with built-in suction where possible. If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

#### Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove contaminated clothing immediately and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be used outside the work area. Street clothing should be stored separately from work clothing.

#### Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166

#### Hand protection

Pull-over gloves of rubber. DIN EN 374

Suitable material:

(Breakthrough time  $\geq$  480 min, penetration time (maximum wearing period): 160 min)

CR (polychloroprenes, Chloroprene rubber). (0,5 mm)

NBR (Nitrile rubber). (0,35 mm)

FKM (fluororubber). (0,4 mm)

PVC (Polyvinyl chloride). (0,5 mm)

Butyl rubber. (0,5 mm)

Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in well-aired place.

#### Skin protection

Suitable protection of the body: Lab apron.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### BEST-CA 221

Print date: 22.10.2014

Page 5 of 9

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state: liquid  
Colour: colourless  
Odour: characteristic

#### Test method

pH-Value: n/a

#### Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	87 °C DIN 51758
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined
Vapour pressure: (at 25 °C)	1,5 hPa DIN 51616
Density (at 25 °C):	1,1 g/cm <sup>3</sup> DIN 51757
Water solubility:	practically insoluble
Viscosity / dynamic: (at 23 °C)	100 mPa·s

#### 9.2. Other information

No information available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No information available.

#### 10.2. Chemical stability

Stable under normal storage and handling conditions.

#### 10.3. Possibility of hazardous reactions

Reacts with : Oxidizing agents, strong. Strong acid. Water.

#### 10.4. Conditions to avoid

Protect against: Light. UV-radiation/sunlight. heat. cooling moisture.

#### 10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Strong acid. Water.

#### 10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Hydrocyanic acid (hydrocyanic acid).

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicokinetics, metabolism and distribution

No data available

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**BEST-CA 221**

Print date: 22.10.2014

Page 6 of 9

**Acute toxicity**

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

**Acute toxicity**

CAS No	Chemical name	Exposure routes	Method	Dose	Species	Source
7085-85-0	ethyl 2-cyanoacrylate	oral	LD50	>5000 mg/kg	Rat.	ECHA Dossier
		dermal	LD50	>2000 mg/kg	Rabbit.	ECHA Dossier

**Irritation and corrosivity**Causes skin irritation.  
Causes serious eye irritation.**Sensitising effects**Based on available data, the classification criteria are not met.  
No data available**STOT-single exposure**

May cause respiratory irritation. (ethyl 2-cyanoacrylate)

**Severe effects after repeated or prolonged exposure**Based on available data, the classification criteria are not met.  
No data available**Carcinogenic/mutagenic/toxic effects for reproduction**Based on available data, the classification criteria are not met.  
ethyl 2-cyanoacrylate:  
In-vitro mutagenicity OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) = negative.  
literature information: ECHA Dossier  
OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) = negative. literature information:  
ECHA Dossier  
No evidence for: Carcinogenicity  
No experimental indications of mutagenicity in-vitro exist.**Aspiration hazard**

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

**Specific effects in experiment on an animal**

No data available

**SECTION 12: Ecological information****12.1. Toxicity**

No data available

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No indication of bio-accumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
7085-85-0	ethyl 2-cyanoacrylate	0,78

**12.4. Mobility in soil**

No data available

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### BEST-CA 221

Print date: 22.10.2014

Page 7 of 9

#### **12.5. Results of PBT and vPvB assessment**

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

#### **12.6. Other adverse effects**

No data available

### **SECTION 13: Disposal considerations**

#### **13.1. Waste treatment methods**

##### **Advice on disposal**

Waste disposal according to official state regulations. Consult the local waste disposal expert about waste disposal. Cleaned containers may be recycled.

##### **Waste disposal number of waste from residues/unused products**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances  
Classified as hazardous waste.

##### **Waste disposal number of used product**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances  
Classified as hazardous waste.

##### **Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

##### **Contaminated packaging**

Handle contaminated packaging in the same way as the substance itself.

### **SECTION 14: Transport information**

#### **Land transport (ADR/RID)**

**14.1. UN number:** Not restricted

##### **Other applicable information (land transport)**

Not restricted

#### **Inland waterways transport (ADN)**

**14.1. UN number:** Not restricted

##### **Other applicable information (inland waterways transport)**

Not restricted

#### **Marine transport (IMDG)**

**14.1. UN number:** Not restricted

##### **Other applicable information (marine transport)**

Not restricted

#### **Air transport (ICAO)**

**14.1. UN number:** Not restricted

**14.2. UN proper shipping name:** Not restricted

#### **14.5. Environmental hazards**



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### BEST-CA 221

Print date: 22.10.2014

Page 8 of 9

ENVIRONMENTALLY HAZARDOUS: no

#### **14.6. Special precautions for user**

refer to chapter 6-8

#### **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

irrelevant

### SECTION 15: Regulatory information

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

##### **EU regulatory information**

1999/13/EC (VOC): 0%; VOC Directive 2004/42/EC: 0 g/l

##### **Additional information**

The preparation is dangerous in the sense of Directive 1999/45/EC.  
This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].  
Not subject to regulation 96/82/EC.  
REACH 1907/2006 Appendix XVII, No 3

##### **National regulatory information**

Employment restrictions: Observe employment restrictions for young people.  
Water contaminating class (D): 1 - slightly water contaminating

#### **15.2. Chemical safety assessment**

For this mixture a chemical safety assessment has been carried out.

### SECTION 16: Other information

#### **Changes**

Rev 1,00, 05.11.2011 Initial release  
Rev 1,10, 21.10.2014 Revision; Changes in chapter: 4, 6, 7, 8, 10, 11, 12, 13, 14, 15

#### **Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NOAEL: No observed adverse effect level

#### **Full text of R phrases referred to under Sections 2 and 3**

36/37/38 Irritating to eyes, respiratory system and skin.

#### **Full text of H statements referred to under Sections 2 and 3**

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### BEST-CA 221

Print date: 22.10.2014

Page 9 of 9

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*