

# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

## AFX-150 AL-FIX 2K COMP A

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

#### 1.1. Product identifier

**Product name** : AFX-150 AL-FIX 2K COMP A  
**Registration number REACH** : Not applicable (mixture)  
**Product type REACH** : Mixture

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

##### 1.2.1 Relevant identified uses

Adhesive  
Sealing compound

##### 1.2.2 Uses advised against

No uses advised against known

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

##### Supplier of the safety data sheet

Novatio\*  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 25 76 40  
☎ +32 14 22 02 66  
info@novatio.be  
\*NOVATIO is a registered trademark of Novatech International N.V.

##### Manufacturer of the product

Novatech International N.V.  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 85 97 37  
☎ +32 14 85 97 38  
info@novatech.be

#### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :  
+32 14 58 45 45 (BIG)

### SECTION 2: Hazards identification

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

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Skin Irrit.	category 2	H315: Causes skin irritation.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
STOT SE	category 3	H335: May cause respiratory irritation.

#### 2.2. Label elements



Contains: ethyl 2-cyanoacrylate.

**Signal word** Warning

##### H-statements

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

##### P-statements

P280 Wear protective gloves, protective clothing and eye protection/face protection.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P312

Call a POISON CENTER/doctor if you feel unwell.

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

## Supplemental information

EUH202

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

### 2.3. Other hazards

No other hazards known

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
ethyl 2-cyanoacrylate 01-2119527766-29	7085-85-0 230-391-5	70% <C<90%	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT SE 3; H335: C≥10%, (CLP Annex VI (ATP 0))	(1)(2)(10)	Constituent	
1,4-dihydroxybenzene 01-2119524016-51	123-31-9 204-617-8	C<0.1%	Muta. 2; H341 Carc. 2; H351 Skin Sens. 1; H317 Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(2)(10)	Constituent	M: 10

(1) For H- and EUH-statements in full: see section 16

(2) Substance with a Community workplace exposure limit

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

#### After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

#### After skin contact:

Do not pull surfaces apart with a direct opposing action. Immerse the bonded surfaces in warm, soapy water. Peel or roll surfaces apart with a blunt edge, e.g. spatula. Consult a doctor/medical service.

#### After eye contact:

Do not try to open the eyes by manipulation. Wash thoroughly with warm water. Apply a moist gauze patch. Consult a doctor/medical service.

#### After ingestion:

Do not try to pull the lips with a direct opposing action. Apply lots of warm water and saliva. Immediately consult a doctor/medical service.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Respiratory difficulties.

##### After skin contact:

Tingling/irritation of the skin.

##### After eye contact:

Irritation of the eye tissue.

##### After ingestion:

No effects known.

#### 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### 5.1.1 Suitable extinguishing media:

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Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.

Major fire: Class B foam (not alcohol-resistant).

## 5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.

Major fire: Water; risk of puddle expansion.

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

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide). Polymerizes on exposure to water (moisture) and on exposure to temperature rise: pressure rise and possible bursting of container.

## 5.3. Advice for firefighters

### 5.3.1 Instructions:

Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

### 5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

## SECTION 6: Accidental release measures

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

No naked flames.

#### 6.1.1 Protective equipment for non-emergency personnel

See section 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See section 8.2

### 6.2. Environmental precautions

Contain released product.

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

Moisten the contaminated surfaces. Allow product to solidify and remove it by mechanical means. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See section 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Keep away from naked flames/heat. Gas/vapour heavier than air at 20°C. Observe strict hygiene. Keep container tightly closed.

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

#### 7.2.1 Safe storage requirements:

Storage temperature: 2 °C - 8 °C. Meet the legal requirements. Store in a cool area. Store in a dry area. Keep out of direct sunlight. Keep container in a well-ventilated place. Keep only in the original container.

#### 7.2.2 Keep away from:

Heat sources, oxidizing agents, (strong) acids.

#### 7.2.3 Suitable packaging material:

No data available

#### 7.2.4 Non suitable packaging material:

No data available

### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure

##### a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

#### Belgium

2-Cyanoacrylate d'éthyle	Time-weighted average exposure limit 8 h	0.2 ppm
	Time-weighted average exposure limit 8 h	1.04 mg/m <sup>3</sup>
Hydroquinone	Time-weighted average exposure limit 8 h	1 mg/m <sup>3</sup>

#### France

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Hydroquinone	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	2 mg/m <sup>3</sup>
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## Austria

1,4-Dihydroxybenzol	Tagesmittelwert (MAK)	2 mg/m <sup>3</sup>
	Kurzzeitwert 5(Mow) 8x (MAK)	4 mg/m <sup>3</sup>
Cyanacrylsäureethylester	Tagesmittelwert (MAK)	2 ppm
	Tagesmittelwert (MAK)	9 mg/m <sup>3</sup>

## UK

Ethyl cyanoacrylate	Short time value (Workplace exposure limit (EH40/2005))	0.3 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1.5 mg/m <sup>3</sup>
Hydroquinone	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	0.5 mg/m <sup>3</sup>

## USA (TLV-ACGIH)

Cyanoacrylates, Ethyl and Methyl	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.2 ppm
	Short time value (TLV - Adopted Value)	1 ppm
Hydroquinone	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m <sup>3</sup>

## b) National biological limit values

If limit values are applicable and available these will be listed below.

## USA (BEI-ACGIH)

Methemoglobin inducers (Methemoglobin)	Blood: during or end of shift	5 % of hemoglobin	Background, Nonspecific
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## 8.1.2 Sampling methods

Product name	Test	Number
Ethyl 2-Cyanoacrylate	OSHA	55
Hydroquinone	NIOSH	5004
Hydroquinone	OSHA	2094

## 8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

## 8.1.4 Threshold values

### DNEL/DMEL - Workers

#### ethyl 2-cyanoacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	9.25 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	9.25 mg/m <sup>3</sup>	
	Long-term local effects inhalation	9.25 mg/m <sup>3</sup>	
	Acute local effects inhalation	9.25 mg/m <sup>3</sup>	

#### 1,4-dihydroxybenzene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.1 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	3.33 mg/kg bw/day	

### DNEL/DMEL - General population

#### ethyl 2-cyanoacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	9.25 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	9.25 mg/m <sup>3</sup>	
	Long-term local effects inhalation	9.25 mg/m <sup>3</sup>	
	Acute local effects inhalation	9.25 mg/m <sup>3</sup>	

#### 1,4-dihydroxybenzene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1.05 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	1.66 mg/kg bw/day	
	Long-term systemic effects oral	0.6 mg/kg bw/day	

### PNEC

#### 1,4-dihydroxybenzene

Compartments	Value	Remark
Fresh water	0.57 µg/l	
Fresh water (intermittent releases)	1.34 µg/l	
Marine water	0.057 µg/l	
STP	0.71 mg/l	
Fresh water sediment	4.9 µg/kg sediment dw	
Marine water sediment	0.49 µg/kg sediment dw	
Soil	0.64 µg/kg soil dw	

## 8.1.5 Control banding

If applicable and available it will be listed below.

## 8.2. Exposure controls

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The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

## 8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

## 8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Do not eat, drink or smoke during work.

### a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

### b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 480 minutes	0.1 mm	Class 6	

### c) Eye protection:

Safety glasses (EN 166).

### d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

## 8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

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

Physical form	Liquid
Viscosity	Viscous
Odour	Characteristic odour
Odour threshold	No data available in the literature
Colour	Colourless
Particle size	Not applicable (liquid)
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available in the literature
Kinematic viscosity	No data available in the literature
Melting point	No data available in the literature
Boiling point	150 °C
Relative vapour density	No data available in the literature
Vapour pressure	No data available in the literature
Solubility	Water ; insoluble Acetone ; soluble
Relative density	1.05
Absolute density	1050 kg/m <sup>3</sup>
Decomposition temperature	No data available in the literature
Auto-ignition temperature	500 °C
Flash point	87 °C
pH	Not applicable (non-soluble in water)

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Temperature above flashpoint: higher fire/explosion hazard.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Polymerizes on exposure to water (moisture) and on exposure to temperature rise: pressure rise and possible bursting of container.

### 10.4. Conditions to avoid

#### Precautionary measures

Keep away from naked flames/heat.

### 10.5. Incompatible materials

Oxidizing agents, (strong) acids.

### 10.6. Hazardous decomposition products

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### 11.1.1 Test results

##### Acute toxicity

###### AFX-150 AL-FIX 2K COMP A

No (test)data on the mixture available

Judgement is based on the relevant ingredients

ethyl 2-cyanoacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 423	> 5000 mg/kg bw		Rat (male)	Experimental value	
Skin	LD50	Equivalent to OECD 402	> 2000 mg/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation						Data waiving	

###### 1,4-dihydroxybenzene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 375 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation (aerosol)	LC50		≥ 7.8 mg/l air	1 h	Rat (female)	Read-across	

##### Conclusion

Not classified for acute toxicity

##### Corrosion/irritation

###### AFX-150 AL-FIX 2K COMP A

No (test)data on the mixture available

Classification is based on the relevant ingredients

ethyl 2-cyanoacrylate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	Equivalent to OECD 405	72 h	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Slightly irritating	Equivalent to OECD 404	24 h	24; 72 hours	Rabbit	Experimental value	
Skin	Irritating; category 2					Annex VI	
Inhalation	Irritating; STOT SE cat.3					Annex VI	

###### 1,4-dihydroxybenzene

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage; category 1					Annex VI	
Skin	Not irritating		24 h	24 hours	Rat	Weight of evidence	

##### Conclusion

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

##### Respiratory or skin sensitisation

###### AFX-150 AL-FIX 2K COMP A

No (test)data on the mixture available

Judgement is based on the relevant ingredients

ethyl 2-cyanoacrylate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Guinea pig maximisation test			Guinea pig (male / female)	Experimental value	

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## 1,4-dihydroxybenzene

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	Equivalent to OECD 429	3 day(s)		Mouse (female)	Experimental value	

### Conclusion

Not classified as sensitizing for inhalation  
Not classified as sensitizing for skin

### Specific target organ toxicity

#### AFX-150 AL-FIX 2K COMP A

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### ethyl 2-cyanoacrylate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation								Data waiving

## 1,4-dihydroxybenzene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 453	25 mg/kg bw/day		No effect	65 weeks (5 days / week) - 104 weeks (5 days / week)	Rat (male)	Experimental value
Dermal	NOAEL	Equivalent to OECD 411	73.9 mg/l - 109.6 mg/l		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation								Data waiving

### Conclusion

Not classified for subchronic toxicity

### Mutagenicity (in vitro)

#### AFX-150 AL-FIX 2K COMP A

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### ethyl 2-cyanoacrylate

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	

## 1,4-dihydroxybenzene

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Positive with metabolic activation, positive without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value	

### Mutagenicity (in vivo)

#### AFX-150 AL-FIX 2K COMP A

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### 1,4-dihydroxybenzene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Positive (Oral (stomach tube))	Equivalent to OECD 483		Mouse (male)		Experimental value
Negative (Oral (stomach tube))	Equivalent to OECD 478	10 weeks (5 days / week)	Rat (male)		Experimental value

### Conclusion

Not classified for mutagenic or genotoxic toxicity

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## Carcinogenicity

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No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### 1,4-dihydroxybenzene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral	Dose level	Equivalent to OECD 453	50 mg/kg bw/day	65 weeks (5 days / week) - 104 weeks (5 days / week)	Rat (male)	Tumor formation	Kidney	Experimental value
Oral	Dose level	Equivalent to OECD 453	≥ 25 mg/kg bw/day	65 weeks (5 days / week) - 104 weeks (5 days / week)	Rat (female)	Change in the haemogramme/ blood composition	Blood	Experimental value

### Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

### AFX-150 AL-FIX 2K COMP A

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### ethyl 2-cyanoacrylate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity								Data waiving
Effects on fertility								Data waiving

#### 1,4-dihydroxybenzene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOEL	Equivalent to OECD 414	100 mg/kg bw/day	10 day(s)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Oral (stomach tube))	NOEL	Equivalent to OECD 414	100 mg/kg bw/day	10 day(s)	Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL (F1/F2)	EPA OTS 798.4700	150 mg/kg bw/day	40 weeks (daily)	Rat (male / female)	No effect		Experimental value

### Conclusion

Not classified for reprotoxic or developmental toxicity

## Toxicity other effects

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No (test) data on the mixture available

## Chronic effects from short and long-term exposure

### AFX-150 AL-FIX 2K COMP A

No effects known.

## 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

#### AFX-150 AL-FIX 2K COMP A

No (test) data on the mixture available

Judgement of the mixture is based on the relevant ingredients



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## 1,4-dihydroxybenzene

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	0.638 mg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	Equivalent to OECD 202	0.061 mg/l	48 h	Daphnia magna	Semi-static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	Equivalent to OECD 201	0.053 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	OECD 210	≥ 66 µg/l	32 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Reproduction
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.006 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	IC50		71 mg/l	2 h	Activated sludge	Static system	Fresh water	Experimental value; Respiration

### Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

## 12.2. Persistence and degradability

### ethyl 2-cyanoacrylate

#### Biodegradation water

Method	Value	Duration	Value determination
EU Method C.4-A	98 %	28 day(s)	Read-across

### 1,4-dihydroxybenzene

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301C	70 %; Oxygen consumption	14 day(s)	Experimental value

#### Biodegradation soil

Method	Value	Duration	Value determination
	100 %	1 day(s)	Experimental value

### Conclusion

#### Water

Does not contain any not readily biodegradable component(s)

## 12.3. Bioaccumulative potential

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#### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

### ethyl 2-cyanoacrylate

#### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
		No data available (test not performed)			

#### Log Kow

Method	Remark	Value	Temperature	Value determination
EU Method A.8		0.776	22 °C	Experimental value

### 1,4-dihydroxybenzene

#### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.00	3.162 l/kg			Estimated value

#### Log Kow

Method	Remark	Value	Temperature	Value determination
		0.59	20 °C - 25 °C	Experimental value

### Conclusion

Does not contain bioaccumulative component(s)

## 12.4. Mobility in soil

### ethyl 2-cyanoacrylate

#### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.834	Calculated value

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## 1,4-dihydroxybenzene

### (log) Koc

Parameter	Method	Value	Value determination
log Koc		0.97 - 1.585	Estimated value

### Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I					99.9 %	Experimental value

### Conclusion

Contains component(s) with potential for mobility in the soil

### 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

### 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

### 12.7. Other adverse effects

#### AFX-150 AL-FIX 2K COMP A

##### Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

##### Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

##### Groundwater

Groundwater pollutant

##### ethyl 2-cyanoacrylate

##### Groundwater

Groundwater pollutant

##### 1,4-dihydroxybenzene

##### Groundwater

Groundwater pollutant

##### Water ecotoxicity pH

pH shift

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

##### European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 09\* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste.

Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

#### 13.1.3 Packaging/Container

##### European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

## SECTION 14: Transport information

### Road (ADR)

#### 14.1. UN number

Transport	Not subject
UN number	3334

#### 14.2. UN proper shipping name

Proper shipping name	aviation regulated liquid, n.o.s. (ethyl 2-cyanoacrylate)
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#### 14.3. Transport hazard class(es)

Hazard identification number	
Class	9
Classification code	M11

Reason for revision: 3;9;12

Publication date: 2000-11-23

Date of revision: 2022-07-11

Revision number: 0800

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<b>14.4. Packing group</b>	
Packing group	
Labels	
<b>14.5. Environmental hazards</b>	
Environmentally hazardous substance mark	no
<b>14.6. Special precautions for user</b>	
Special provisions	
Limited quantities	

## Rail (RID)

<b>14.1. UN number</b>	
Transport	Not subject
UN number	3334
<b>14.2. UN proper shipping name</b>	
Proper shipping name	aviation regulated liquid, n.o.s. (ethyl 2-cyanoacrylate)
<b>14.3. Transport hazard class(es)</b>	
Hazard identification number	
Class	9
Classification code	M11
<b>14.4. Packing group</b>	
Packing group	
Labels	
<b>14.5. Environmental hazards</b>	
Environmentally hazardous substance mark	no
<b>14.6. Special precautions for user</b>	
Special provisions	
Limited quantities	

## Inland waterways (ADN)

<b>14.1. UN number</b>	
Transport	Not subject
UN number	3334
<b>14.2. UN proper shipping name</b>	
Proper shipping name	aviation regulated liquid, n.o.s. (ethyl 2-cyanoacrylate)
<b>14.3. Transport hazard class(es)</b>	
Class	9
Classification code	M11
<b>14.4. Packing group</b>	
Packing group	
Labels	
<b>14.5. Environmental hazards</b>	
Environmentally hazardous substance mark	no
<b>14.6. Special precautions for user</b>	
Special provisions	
Limited quantities	

## Sea (IMDG/IMSBC)

<b>14.1. UN number</b>	
Transport	Not subject
UN number	3334
<b>14.2. UN proper shipping name</b>	
Proper shipping name	aviation regulated liquid, n.o.s. (ethyl 2-cyanoacrylate)
<b>14.3. Transport hazard class(es)</b>	
Class	9
<b>14.4. Packing group</b>	
Packing group	
Labels	
<b>14.5. Environmental hazards</b>	
Marine pollutant	
Environmentally hazardous substance mark	no
<b>14.6. Special precautions for user</b>	
Special provisions	960
Limited quantities	
<b>14.7. Maritime transport in bulk according to IMO instruments</b>	
Annex II of MARPOL 73/78	Not applicable, based on available data

## Air (ICAO-TI/IATA-DGR)

<b>14.1. UN number</b>	
UN number	3334
<b>14.2. UN proper shipping name</b>	
Proper shipping name	aviation regulated liquid, n.o.s. (ethyl 2-cyanoacrylate)
<b>14.3. Transport hazard class(es)</b>	

Reason for revision: 3;9;12

Publication date: 2000-11-23

Date of revision: 2022-07-11

Revision number: 0800

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Class	9
14.4. Packing group	
Packing group	III
Labels	9
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	A27
Passenger and cargo transport	
Limited quantities: maximum net quantity per packaging	30 kg G

## SECTION 15: Regulatory information

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

#### European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
70 % - 90 %	
735 g/l - 945 g/l	

Directive 2012/18/EU (Seveso III)

Not subject to registration according to Directive 2012/18/EU (Seveso III)

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· ethyl 2-cyanoacrylate	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage"; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
· ethyl 2-cyanoacrylate · 1,4-dihydroxybenzene	Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation — reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2 — serious eye damage category 1 or eye irritant category 2 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council (c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a	Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081

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condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex.  
The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.

## National legislation Belgium

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No data available

## National legislation The Netherlands

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Waterbezwaarlijkheid	B (4); Algemene Beoordelingsmethodiek (ABM)
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## National legislation France

AFX-150 AL-FIX 2K COMP A

No data available

### 1,4-dihydroxybenzene

Catégorie cancérigène	Hydroquinone; C2
Catégorie mutagène	Hydroquinone; M2

## National legislation Germany

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WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
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### ethyl 2-cyanoacrylate

TA-Luft	5.2.5
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### 1,4-dihydroxybenzene

TA-Luft	5.2.5/I
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## National legislation Austria

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No data available

### 1,4-dihydroxybenzene

Krebserzeugend	1,4-Dihydroxybenzol; III B
Gefahr der Sensibilisierung der Haut	1,4-Dihydroxybenzol; S
Gefahr der Sensibilisierung der Atemwege	1,4-Dihydroxybenzol; S

## National legislation United Kingdom

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No data available

## Other relevant data

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No data available

### ethyl 2-cyanoacrylate

TLV - Skin Sensitisation	Cyanoacrylates, Ethyl and Methyl; SEN; Sensitization
TLV - Respiratory Sensitisation	Cyanoacrylates, Ethyl and Methyl; SEN; Sensitization

### 1,4-dihydroxybenzene

TLV - Skin Sensitisation	Hydroquinone; SEN; Sensitization
TLV - Carcinogen	Hydroquinone; A3
IARC - classification	3; Hydroquinone

## 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

## SECTION 16: Other information

### Full text of any H- and EUH-statements referred to under section 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.
- H410 Very toxic to aquatic life with long lasting effects.
- EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

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(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.