

Afinitica AF 405
 Supersedes Date: 08-May-2021

Revision date 23-Nov-2020
 Revision Number 1

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

1.1. Product identifier

Product Name Afinitica AF 405
Pure substance/mixture Mixture

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

Recommended use This product is a cyanoacrylate-based adhesive.
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company Name
 Afinitica Technologies s.l.
 Edifici Eureka, Campus UAB
 08193 Bellaterra
 Barcelona, Spain
 Tel: +34 611428953

E-mail address SDS.box-EU@bostik.com

1.4. Emergency telephone number

Emergency Telephone Tel: +34 611428953

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity — single exposure	Category 3 - (H335)

2.2. Label elements

Contains ethyl-2-cyanoacrylate



Signal word
 Warning

Hazard statements
 H315 - Causes skin irritation.
 H319 - Causes serious eye irritation.

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H335 - May cause respiratory irritation.

EU Specific Hazard Statements

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

Precautionary Statements - EU (§28, 1272/2008)

P261 - Avoid breathing vapours

P280 - Wear protective gloves and eye/face protection

P264 - Wash hands and face thoroughly after handling

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 to an approved waste disposal plant

2.3. Other hazards

Polymerises with evolution of heat. Will bond to skin. Bonds skin and eyes in seconds. Combustible liquid. Bonds skin and eyes in seconds.

PBT & vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	REACH registration number
ethyl-2-cyanoacrylate	230-391-5	7085-85-0	80 - 100	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	STOT SE 3 :: C>=10%	01-2119527766-29-XXXX
6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	204-327-1	119-47-1	0.1- <1	Repr. 2 (H361f) Aquatic Chronic 4 (H413)		[8]
Hydroquinone	204-617-8	123-31-9	0.01 - <0.1	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (M Factor Acute = 10) (M Factor		01-2119524016-51-XXXX

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				Chronic =1)		
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NOTE [8] - No registration number is given for this substance because it is under the threshold in REACH Article 6(1) and not subject to the registration requirements according to REACH Title II

Full text of H- and EUH-phrases: see section 16

Note: ^ indicates not classified, however, the substance is listed in section 3 as it has an OEL

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. If irritation persists or eye and/or skin remains bonded: Get medical advice/attention.
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.
Eye contact	If eyelids are bonded closed or if skin to skin or skin to clothing bonding has occurred, release bonding by covering affected area with a pad wetted with warm water. Do not force eyes or any bonded skin apart. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists or eye and/or skin remains bonded: Get medical advice/attention. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	If eyelids are bonded closed or if skin to skin or skin to clothing bonding has occurred, release bonding by covering affected area with a pad wetted with warm water. Do not force eyes or any bonded skin apart. If irritation persists or eye and/or skin remains bonded: Get medical advice/attention. Wash off immediately with soap and plenty of water for at least 15 minutes. Allow acetone or warm water to penetrate the bond and gently attempt to move bonded areas without pulling the skin away from bonded area. Do not remove clothing if adhering to skin. Polymerises with evolution of heat.
Ingestion	Ensure breathing passages are not obstructed. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing.

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

Symptoms May cause redness and tearing of the eyes. Burning sensation.

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

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Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Bonds skin and eyes in seconds.

Hazardous combustion products Carbon oxides. Nitrogen oxides (NOx). Silicon dioxide.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off floor.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection equipment. Do not eat, drink or smoke when using this product. See section 8 for more information. Take off contaminated clothing and wash it before reuse. Ensure adequate ventilation. Avoid breathing vapours or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

7.2. Conditions for safe storage, including any incompatibilities

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Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific use(s)
This product is a cyanoacrylate-based adhesive.

Identified uses

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)			
Hydroquinone (123-31-9)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Dermal	3.33 mg/kg bw/d	
worker Long term Systemic health effects	Inhalation	2.1 mg/m ³	

Derived No Effect Level (DNEL)			
Hydroquinone (123-31-9)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Dermal	1.66 mg/kg bw/d	
Consumer Long term Systemic health effects	Inhalation	1.05 mg/m ³	
Consumer Long term Systemic health effects	Oral	0.6 mg/kg bw/d	

Predicted No Effect Concentration (PNEC) No information available.

Predicted No Effect Concentration (PNEC)	
Hydroquinone (123-31-9)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.57 µg/l
Freshwater - intermittent	1.34 µg/l
Marine water	0.057 µg/l

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Freshwater sediment	0.0049 mg/kg dry weight
Marine sediment	0.00049 mg/kg dry weight
Soil	0.00064 mg/kg dry weight
Sewage treatment plant	0.71 mg/l

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas. Vapours/aerosols must be exhausted directly at the point of origin.

Personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Hand protection

Recommended Use: Nitrile rubber. Glove thickness > 0.4 mm. Latex gloves. Polyethylene. Polypropylene. Glove thickness >= 0.15 mm. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

None under normal use conditions.

Environmental exposure controls Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	Colourless
Odour	Irritating
Odour threshold	No information available

Property	Values	Remarks • Method
pH	No data available	
pH (as aqueous solution)	No data available	
Melting point / freezing point	No data available	
Initial boiling point and boiling range	80 °C	
Flash point	82.5 °C	
Evaporation rate	No data available	
Flammability	Not applicable for liquids	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapour pressure	No data available	
Relative vapour density	No data available	
Relative density	No data available	
Water solubility	Product cures with moisture	Polymerisation can occur
Solubility(ies)	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	No data available	
Dynamic viscosity	2600 3500 mPa s	@ 25 °C
Explosive properties	No data available	
Oxidising properties	No data available	

9.2. Other information

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Solid content (%) No information available
VOC Content (%) No data available
Liquid Density No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Protect from moisture.

10.5. Incompatible materials

Incompatible materials Alcohols. Alkali. Amines. Water.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Stable under recommended storage conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Bonds skin and eyes in seconds. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. Bonds skin and eyes in seconds. Causes skin irritation. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. May cause redness and tearing of the eyes.

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Numerical measures of toxicity

Acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
ethyl-2-cyanoacrylate 7085-85-0	>5000 mg/kg (Rattus) OECD 401	>2000 mg/Kg (Oryctolagus cuniculus) OECD 402	<21.1 mg/L (Rattus) 1 h
6,6'-di-tert-butyl-2,2'-methylene di-p-cresol 119-47-1	>10000 mg/kg (Rattus)	> 10000 mg/kg (Oryctolagus cuniculus)	
Hydroquinone 123-31-9	390 mg/kg (Rattus)	= 74800 mg/kg (Oryctolagus cuniculus)	

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	European Union
Hydroquinone 123-31-9	Muta. 2

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

Chemical name	European Union
Hydroquinone 123-31-9	Carc. 2

The table below indicates whether each agency has listed any ingredient as a carcinogen.

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

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure Based on available data, the classification criteria are not met.

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
ethyl-2-cyanoacrylate 7085-85-0	polymerizes	polymerizes	-	-		
6,6'-di-tert-butyl-2,2'-m ethylenedi-p-cresol 119-47-1	-	LD50 (96h) >5mg/L	-	-		
Hydroquinone 123-31-9	EC50: =0.335mg/L (72h, Pseudokirchneri ella subcapitata) EC50: =13.5mg/L (120h, Desmodesmus subspicatus)	LC50 96 h = 0.044 mg/L (Oncorhynchus mykiss flow-through)	EC50 = 0.038 mg/L 15 min EC50 = 0.0382 mg/L 30 min EC50 = 0.042 mg/L 5 min EC50 = 23.75 mg/L 60 min	EC50: =0.29mg/L (48h, Daphnia magna)	10	1

12.2. Persistence and degradability

Persistence and degradability No information available.

Component Information

6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (119-47-1)

Method	Exposure time	Value	Results
OECD Test No. 301C: Ready Biodegradability: Modified MITI Test (I) (TG 301 C)	28 days		0 % Not readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol 119-47-1	>3.6	840
Hydroquinone 123-31-9	0.5	40

12.4. Mobility in soil

Mobility in soil No information available.

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12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
ethyl-2-cyanoacrylate 7085-85-0	The substance is not PBT / vPvB PBT assessment does not apply
6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol 119-47-1	The substance is not PBT / vPvB
Hydroquinone 123-31-9	The substance is not PBT / vPvB PBT assessment does not apply

12.6. Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
European Waste Catalogue	08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances
Other information	Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	NP
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number	UN3334
14.2 Proper Shipping Name	Aviation regulated liquid, n.o.s (ethyl-2-cyanoacrylate)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3334, Aviation regulated liquid, n.o.s (ethyl-2-cyanoacrylate), 9, III
14.5 Environmental hazards	Not applicable

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14.6 Special Provisions A27
Limited Quantity (LQ) 30 kg G
ERG Code 9A

Section 15: REGULATORY INFORMATION

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

European Union

Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Substance subject to authorisation per REACH Annex XIV

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Persistent Organic Pollutants

Not applicable

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
ethyl-2-cyanoacrylate 7085-85-0	RG 66 RG 65
Hydroquinone 123-31-9	RG 65

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV

No flammable liquids in accordance with BetrSichV

Water hazard class (WGK) slightly hazardous to water (WGK 1)

Netherlands

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List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)

Not Listed

Denmark

Registration number(s) (P-no.) No information available

Norway

Registration number(s) (PRN-no.) No information available

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-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
H361f - Suspected of damaging fertility
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H413 - May cause long lasting harmful effects to aquatic life

Legend

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
*	Skin designation
SVHC	Substance(s) of Very High Concern
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
EWC	European Waste Catalogue

Key literature references and sources for data

No information available

Prepared By Product Safety & Regulatory Affairs

Revision date 23-Nov-2020

Indication of changes

Revision note Not applicable.

Training Advice No information available

Further information No information available

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet