

SECTION 1: Product and company identification

1.1. Product identifier

AFINITICA® BEMO2020

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

Intended use: Instant Adhesive.

1.3. Details of the supplier of the safety data sheet

Afinitica Technologies S.L.
Edificio Eureka, Parc de Recerca UAB
08193 Bellaterra (Barcelona)

España
Telephone number: +34 93 143 1952
info@afinitica.com

1.4. Emergency telephone number

Afinitica Technologies S.L. +34 93 143 1952

Afinitica Technologies (24 h) + 34 694 412 618

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. GHS classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 4)
Eye irritation (Category 2B)

2.2. GHS label elements, including precautionary statements

Pictogram	None.
Signal Word	Warning.
Hazard statements	

H227 Combustible liquid
H320 Causes eye irritation.

Precautionary statements

P210 Keep away from heat – No smoking.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves / eye protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice / attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of container to an approved waste disposal plant.

For full text of these Hazard and Precautionary statements, see Section 16.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

None.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

General chemical description: Cyanoacrylate adhesive

3.2.1. Declaration of the ingredients in accordance with 29 CFR 1910 (OSHA HCS):

Hazardous component	CAS-No.	EC-No.	Content	Classification
2-Methoxyethyl cyanoacrylate	27816-23-5	248-670-5	>70 – ≤98 %	Flam. Liq. 4; H227 Eye irrit. 2B; H320
Acrylic polymer	-	-	1 – 10 %	-
Silicones and siloxanes, dimethyl-, reaction products with silica	67762-90-7	-	1 – 10 %	-

5.2. Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx)

5.3. Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary

5.4. Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Remove all sources of ignition.
For personal protection, see Section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains

6.3. Methods and materials for containment and cleaning up

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

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ventilation (low level) is recommended when using large volumes.
Use of dispensing equipment is recommended to minimise the risk of skin or eye contact

Hygiene measures:

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

7.2. Conditions for safe storage, including any incompatibilities

For optimum shelf life store in original containers under refrigerated conditions at 2 - 8°C (35.6 - 46.4 °F)

7.3. Specific end use(s)

Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits (OEL):

Substance	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
2-Methoxyethyl cyanoacrylate 27816-23-5	-	-	-	0.2 ppm TWA
Silica dust	10 mg/m ³ TWA (inhalable dust)	15 mg/m ³ TWA (total dust)	-	-
	3 mg/m ³ TWA (respirable fraction)	5 mg/m ³ TWA (respirable fraction)		
Acrylic polymer	-	4 mg/m ³ (respirable dust)	-	-
		10 mg/m ³ (inhalable dust)		
Hydroquinone 123-31-9	1 mg/m ³ TWA	2 mg/m ³ TWA	-	-

Biological occupational exposure limits:

Substance	Value on basis: ACGIH BEI	Parameters	Biological specimen	Remarks
Hydroquinone 123-31-9	1.5 %	Methemoglobin	In blood	During or end of shift

8.2. Exposure controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment:

Eye/face protection:

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection:

Use impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:

Ensure adequate ventilation.

Control of environmental exposure:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Gel
	Colourless
Odour	Odourless.
pH	No data available/Not applicable
Initial boiling point	74-76 °C (165-169 °F)
Flash point	No data available/Not applicable.
Decomposition temperature	No data available/Not applicable
Vapour pressure	No data available/Not applicable
Density	1.06 g/cm ³ .
Bulk density	No data available/Not applicable
Viscosity	No data available/Not applicable
Viscosity (kinematic)	No data available/Not applicable
Explosive properties	No data available/Not applicable
Qualitative solubility (solvent: water)	Polymerises in presence of water
Solidification temperature	No data available/Not applicable
Melting point	No data available/Not applicable
Flammability	No data available/Not applicable
Auto-ignition temperature	No data available/Not applicable
Explosive limits	No data available/Not applicable
Partition coefficient n-octanol/water	No data available/Not applicable
Evaporation rate	No data available/Not applicable
Vapour density	No data available/Not applicable
Oxidizing properties	No data available/Not applicable

9.2. Other safety information

No data available/Not applicable

SECTION 10: Stability and reactivity**10.1. Reactivity**

No data available/Not applicable.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available/Not applicable.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Reducing agents, water, amines, alcohols, alkali metals, oxidizing agents.

10.6. Hazardous decomposition products

Other decomposition products – no data available.

In the event of fire: see Section 5.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Aspiration hazard:**

Irritating to respiratory system

Acute oral toxicity:

No data available/Not applicable.

Acute dermal toxicity:

No data available/Not applicable.

Skin corrosion/irritation:

No data available/Not applicable.

Serious eye damage/irritation:

No data available/Not applicable.

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Hydroquinone 123-31-9	Sensitising	Guinea pig maximisation test	Guinea pig	-

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Hydroquinone 123-31-9	negative	Bacterial reverse mutation assay (e.g. Ames test)	with and without	-	EU Method B.13/14 (Mutagenicity)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Hydroquinone 123-31-9	NOAEL \geq 250 mg/kg	oral: gavage	14 days, 5 days/week. 12 doses	rat	OECD Guideline 407 (repeated Dose 28-Day Oral Toxicity in Rodents)
Hydroquinone 123-31-9	LOAEL \leq 500 mg/kg	oral: gavage	14 days, 5 days/week. 12 doses	rat	OECD Guideline 407 (repeated Dose 28-Day Oral Toxicity in Rodents)

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Hydroquinone 123-31-9	LC50	0.638 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydroquinone 123-31-9	EC50	0.134 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Hydroquinone 123-31-9	EC50	0.335 mg/l	Algae	72 h	Senastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydroquinone 123-31-9	NOEC	0.0057 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Hydroquinone 123-31-9	readily biodegradable	Aerobic	75 – 81 %	EU Method C.4-E (Determination of the "Ready" Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Disposal of uncleaned packages:

Dispose of as unused product.

SECTION 14: Transport information

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name	Combustible liquid, n.o.s. (Cyanoacrylate ester)
Hazard class or division	Combustible liquid
Identification number	NA 1993
Packing group	III
Exceptions	(Not more than 450 Liters), Unrestricted.

International Air Transportation (ICAO/IATA)

Proper shipping name	Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)
Hazard class or division	9
Identification number	UN 3334
Packing group	None.

Water transportation (IMO/IMDG)

Proper shipping name	Not regulated.
Hazard class or division	None.
Identification number	None.
Packing group	None.

SECTION 15: Regulatory information

United States Regulatory Information

TSCA 8 (b) Inventory Status	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification	None above reporting De Minimis.
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Immediate Health, Delayed Health, Fire, Reactive.
California Proposition 65	This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

Flam. Liq. Flammable liquids.

Eye irrit.	Eye irritation.
Acute Tox.	Acute toxicity
Skin Sens.	Skin sensitisation.
Eye Dam.	Serious eye damage.
Muta.	Germ cell mutagenicity.
Carc.	Carcinogenicity.
Aquatic Acute	Aquatic acute toxicity.
Aquatic Chronic	Chronic aquatic toxicity.
H227	Combustible liquid.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye 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.
P210	Keep away from heat – No smoking.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves / eye protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice / attention.
P362	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of container to an approved waste disposal plant.

Further information

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with 29 CFR 1910 (OSHA HCS).