

DB 8820 - Duobond Pit Fill

Date of compilation: 08/08/2023

Version: 1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: DB 8820 - Duobond Pit Fill**Other means of identification:**

Non-applicable

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

Relevant uses: Adhesive for glass. For professional users only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

DB-Imagineering BV

Laarakkerweg 10

5061 JR Oisterwijk - Netherlands

Phone: 0135444440

info@db-img.com

Duobond is a brand name of DB-Imagineering BV

1.4 Emergency telephone number: Within the European Union: 112

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:**CLP Regulation (EC) No 1272/2008:**

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Acute Tox. 4: Acute toxicity on contact with skin, Category 4, H312

Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410

Eye Irrit. 2: Eye irritation, Category 2, H319

Skin Irrit. 2: Skin irritation, Category 2, H315

Skin Sens. 1: Sensitisation, skin, Category 1, H317

STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:**CLP Regulation (EC) No 1272/2008:****Warning****Hazard statements:**

Acute Tox. 4: H312 - Harmful in contact with skin.

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Skin Irrit. 2: H315 - Causes skin irritation.

Skin Sens. 1: H317 - May cause an allergic skin reaction.

STOT SE 3: H335 - May cause respiratory irritation.

Precautionary statements:

P264: Wash thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.

P302+P352: IF ON SKIN: Wash with plenty of water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Supplementary information:

Contains 2-hydroxyethyl acrylate.

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SECTION 2: HAZARDS IDENTIFICATION (continued)

Substances that contribute to the classification

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate; Methacrylic acid

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

Endocrine-disrupting properties: The product does not meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Acrylic resin

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 5888-33-5 EC: 227-561-6 Index: 607-756-00-6 REACH: 01-2119957862-25-XXXX	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate ⁽¹⁾	Self-classified	25 - <50 %
	Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT SE 3: H335 - Warning	
CAS: 42978-66-5 EC: 256-032-2 Index: 607-249-00-X REACH: 01-2119484613-34-XXXX	(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate ⁽¹⁾	ATP CLP00	10 - <25 %
	Regulation 1272/2008	Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT SE 3: H335 - Warning	
CAS: 7473-98-5 EC: 231-272-0 Index: Non-applicable REACH: 01-2119472306-39-XXXX	2-hydroxy-2-methylpropiophenone ⁽¹⁾	Self-classified	5 - <10 %
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Chronic 3: H412 - Warning	
CAS: 79-41-4 EC: 201-204-4 Index: Non-applicable REACH: 01-2119463884-26-XXXX	Methacrylic acid ⁽¹⁾	Self-classified	<1 %
	Regulation 1272/2008	Acute Tox. 3: H311; Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Corr. 1A: H314; STOT SE 3: H335 - Danger	
CAS: 79-92-5 EC: 201-234-8 Index: Non-applicable REACH: 01-2119446293-40-XXXX	Camphene ⁽¹⁾	Self-classified	<1 %
	Regulation 1272/2008	Aquatic Chronic 1: H410; Eye Irrit. 2: H319; Flam. Sol. 2: H228 - Warning	
CAS: 818-61-1 EC: 212-454-9 Index: 607-072-00-8 REACH: 01-2119459345-34-XXXX	2-hydroxyethyl acrylate ⁽¹⁾	Self-classified	<1 %
	Regulation 1272/2008	Acute Tox. 3: H311; Acute Tox. 4: H302; Aquatic Acute 1: H400; Eye Dam. 1: H318; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger	

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate CAS: 42978-66-5 EC: 256-032-2	% (w/w) >=10: STOT SE 3 - H335
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	% (w/w) >=10: Skin Corr. 1A - H314 % (w/w) >=1: Eye Irrit. 2 - H319 % (w/w) >=1: STOT SE 3 - H335

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

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SECTION 4: FIRST AID MEASURES (continued)

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media:****Suitable extinguishing media:**

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)**For emergency responders:**

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling:**

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

Maximum time: 12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

There are no applicable occupational exposure limits for the substances contained in the product

DNEL (Workers):

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Safety data sheet

This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate CAS: 5888-33-5 EC: 227-561-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,39 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	4,9 mg/m³	Non-applicable
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate CAS: 42978-66-5 EC: 256-032-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,7 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2,35 mg/m³	Non-applicable
2-hydroxy-2-methylpropiophenone CAS: 7473-98-5 EC: 231-272-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3,5 mg/m³	Non-applicable
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	4,25 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	29,6 mg/m³	88 mg/m³
Camphene CAS: 79-92-5 EC: 201-234-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	1,25 mg/kg	Non-applicable	0,21 mg/kg	Non-applicable
	Inhalation	110,19 mg/m³	Non-applicable	110,19 mg/m³	Non-applicable
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	2,4 mg/m³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate CAS: 5888-33-5 EC: 227-561-6	Oral	Non-applicable	Non-applicable	0,83 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,83 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1,45 mg/m³	Non-applicable
2-hydroxy-2-methylpropiophenone CAS: 7473-98-5 EC: 231-272-0	Oral	Non-applicable	Non-applicable	0,4 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,9 mg/m³	Non-applicable
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2,55 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	6,3 mg/m³	6,55 mg/m³
Camphene CAS: 79-92-5 EC: 201-234-8	Oral	0,625 mg/kg	Non-applicable	0,1 mg/kg	Non-applicable
	Dermal	0,625 mg/kg	Non-applicable	0,1 mg/kg	Non-applicable
	Inhalation	54,3 mg/m³	Non-applicable	54,3 mg/m³	Non-applicable
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	1,2 mg/m³

PNEC:

Identification					
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate CAS: 5888-33-5 EC: 227-561-6	STP	2 mg/L	Fresh water	0,001 mg/L	
	Soil	0,029 mg/kg	Marine water	0 mg/L	
	Intermittent	0,007 mg/L	Sediment (Fresh water)	0,145 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,015 mg/kg	
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate CAS: 42978-66-5 EC: 256-032-2	STP	10 mg/L	Fresh water	0,005 mg/L	
	Soil	0,095 mg/kg	Marine water	0 mg/L	
	Intermittent	0,046 mg/L	Sediment (Fresh water)	0,487 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,049 mg/kg	

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)



Identification				
2-hydroxy-2-methylpropiophenone CAS: 7473-98-5 EC: 231-272-0	STP	45 mg/L	Fresh water	0,002 mg/L
	Soil	0,001 mg/kg	Marine water	0 mg/L
	Intermittent	0,019 mg/L	Sediment (Fresh water)	0,009 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,001 mg/kg
Camphene CAS: 79-92-5 EC: 201-234-8	STP	10 mg/L	Fresh water	0,001 mg/L
	Soil	0,021 mg/kg	Marine water	0 mg/L
	Intermittent	0,001 mg/L	Sediment (Fresh water)	0,026 mg/kg
	Oral	0,00208 g/kg	Sediment (Marine water)	0,003 mg/kg
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	STP	10 mg/L	Fresh water	0,017 mg/L
	Soil	0,003 mg/kg	Marine water	0,002 mg/L
	Intermittent	0,036 mg/L	Sediment (Fresh water)	0,064 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,006 mg/kg

8.2 Exposure controls:



A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	 CAT III	EN 405:2002+A1:2010	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Butyl, Breakthrough time: > 480 min, Thickness: 0.3 mm)	 CAT III	EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield	 CAT II	EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	 CAT III	EN 13034:2005+A1:2009 EN 168:2002 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory foot protection	Safety footwear for protection against chemical risk	 CAT III	EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m ³ (0 g/L)
Average carbon number:	Non-applicable
Average molecular weight:	Non-applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Colorless
Colour:	Not available
Odour:	Citric
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	272 °C
Vapour pressure at 20 °C:	5,739E-1 Pa
Vapour pressure at 50 °C:	8,44 Pa (0,01 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1049,4 kg/m ³
Relative density at 20 °C:	1,049
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Flammability:	
Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	214 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *
Particle characteristics:	
Median equivalent diameter:	Non-applicable

9.2 Other information:**Information with regard to physical hazard classes:**

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Precaution	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

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SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	LD50 oral	1320 mg/kg	Rat
	LD50 dermal	500 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
2-hydroxy-2-methylpropiophenone CAS: 7473-98-5 EC: 231-272-0	LD50 oral	1694 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate CAS: 42978-66-5 EC: 256-032-2	LD50 oral	6800 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Camphene CAS: 79-92-5 EC: 201-234-8	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal	8189 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	LD50 oral	Non-applicable	
	LD50 dermal	300 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Very toxic to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration	Species	Genus
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate CAS: 5888-33-5 EC: 227-561-6	LC50	>0.1 - 1 mg/L (96 h)	Fish
	EC50	>0.1 - 1 mg/L (48 h)	Crustacean
	EC50	>0.1 - 1 mg/L (72 h)	Algae
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate CAS: 42978-66-5 EC: 256-032-2	LC50	5,5 mg/L (96 h)	Leuciscus idus
	EC50	88,7 mg/L (48 h)	Daphnia magna
	EC50	28 mg/L (72 h)	Scenedesmus subspicatus
2-hydroxy-2-methylpropiophenone CAS: 7473-98-5 EC: 231-272-0	LC50	>10 - 100 mg/L (96 h)	Fish
	EC50	>10 - 100 mg/L (48 h)	Crustacean
	EC50	>10 - 100 mg/L (72 h)	Algae
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	LC50	Non-applicable	
	EC50	130 mg/L (48 h)	Daphnia magna
	EC50	Non-applicable	
Camphene CAS: 79-92-5 EC: 201-234-8	LC50	0,72 mg/L (96 h)	Brachydanio rerio
	EC50	46 mg/L (24 h)	Daphnia magna
	EC50	Non-applicable	
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	LC50	>0.1 - 1 mg/L (96 h)	Fish
	EC50	>0.1 - 1 mg/L (48 h)	Crustacean
	EC50	>0.1 - 1 mg/L (72 h)	Algae

Chronic toxicity:

Identification	Concentration	Species	Genus
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate CAS: 5888-33-5 EC: 227-561-6	NOEC	Non-applicable	
	NOEC	0,092 mg/L	Daphnia magna
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	NOEC	Non-applicable	
	NOEC	53 mg/L	Daphnia magna
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	NOEC	Non-applicable	
	NOEC	1,8 mg/L	Daphnia magna

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	BOD5	Non-applicable	Concentration	3 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	86 %
Camphene CAS: 79-92-5 EC: 201-234-8	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	4 %
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	78 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate CAS: 42978-66-5 EC: 256-032-2	BCF	
	Pow Log	2.77
	Potential	
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	BCF	2
	Pow Log	
	Potential	Low
Camphene CAS: 79-92-5 EC: 201-234-8	BCF	1290
	Pow Log	4.22
	Potential	Very High
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	BCF	0.41
	Pow Log	-0.21
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Methacrylic acid CAS: 79-41-4 EC: 201-204-4	Koc	25	Henry	3,9E-2 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,912E-2 N/m (25 °C)	Moist soil	Yes
Camphene CAS: 79-92-5 EC: 201-234-8	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	1,098E-2 N/m (205,93 °C)	Moist soil	Non-applicable
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2,487E-2 N/m (25 °C)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP13 Sensitising, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:



- 14.1 UN number or ID number:** UN3082
- 14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)
- 14.3 Transport hazard class(es):** 9
- Labels:** 9
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** Yes
- 14.6 Special precautions for user**
- Special regulations: 274, 335, 375, 601
- Tunnel restriction code: -
- Physico-Chemical properties: see section 9
- Limited quantities: 5 L
- 14.7 Maritime transport in bulk according to IMO instruments:** Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 40-20:



- 14.1 UN number or ID number:** UN3082
- 14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)
- 14.3 Transport hazard class(es):** 9
- Labels:** 9
- 14.4 Packing group:** III
- 14.5 Marine pollutant:** Yes
- 14.6 Special precautions for user**
- Special regulations: 335, 969, 274
- EmS Codes: F-A, S-F
- Physico-Chemical properties: see section 9
- Limited quantities: 5 L
- Segregation group: Non-applicable
- 14.7 Maritime transport in bulk according to IMO instruments:** Non-applicable

Transport of dangerous goods by air:

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SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IATA/ICAO 2023:



- 14.1 UN number or ID number:** UN3082
- 14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)
- 14.3 Transport hazard class(es):** 9
- Labels:** 9
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** Yes
- 14.6 Special precautions for user**
- Physico-Chemical properties: see section 9
- 14.7 Maritime transport in bulk according to IMO instruments:** Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
E1	ENVIRONMENTAL HAZARDS	100	200

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

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.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

Texts of the legislative phrases mentioned in section 2:

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SECTION 16: OTHER INFORMATION (continued)

H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H335: May cause respiratory irritation.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.
 H312: Harmful in contact with skin.
 H319: Causes serious eye irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 3: H311 - Toxic in contact with skin.
 Acute Tox. 4: H302 - Harmful if swallowed.
 Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.
 Aquatic Acute 1: H400 - Very toxic to aquatic life.
 Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
 Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
 Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
 Eye Dam. 1: H318 - Causes serious eye damage.
 Eye Irrit. 2: H319 - Causes serious eye irritation.
 Flam. Sol. 2: H228 - Flammable solid.
 Skin Corr. 1A: H314 - Causes severe skin burns and eye damage.
 Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
 Skin Irrit. 2: H315 - Causes skin irritation.
 Skin Sens. 1: H317 - May cause an allergic skin reaction.
 STOT SE 3: H335 - May cause respiratory irritation.

Classification procedure:

Skin Irrit. 2: Calculation method
 Skin Sens. 1: Calculation method
 STOT SE 3: Calculation method
 Aquatic Acute 1: Calculation method
 Aquatic Chronic 1: Calculation method
 Acute Tox. 4: Calculation method
 Eye Irrit. 2: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
 IMDG: International maritime dangerous goods code
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organisation
 COD: Chemical Oxygen Demand
 BOD5: 5day biochemical oxygen demand
 BCF: Bioconcentration factor
 LD50: Lethal Dose 50
 LC50: Lethal Concentration 50
 EC50: Effective concentration 50
 LogPOW: Octanolwater partition coefficient
 Koc: Partition coefficient of organic carbon
 UFI: unique formula identifier
 IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -