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Safety data sheet

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

ABchimie80K UV LED
UV LED resin



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

1.1 Product identifier: ABchimie80K UV LED
UV LED resin

Other means of identification:

UFI: W720-R06G-X00U-C4EN

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

Relevant uses (Industrial user): Resin

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:

ABchimie
1230, route de la porte ZA La Rivoire
38630 CORBELIN - FRANCE
Phone: 04.74.83.12.19 - Fax: 04.74.83.68.62
info@abchimie.com
www.abchimie.com

1.4 Emergency telephone number: 112

ORFILA (INRS) : + 33 (0)1 45 42 59 59 (Francais)

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.

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Warning



Hazard statements:

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.

Precautionary statements:

P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/protective footwear.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P363: Wash contaminated clothing before reuse.
P391: Collect spillage.
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Supplementary information:

Contains 3-aminopropyltriethoxysilane, 2-hydroxyethyl acrylate.

Substances that contribute to the classification

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

UFI: W720-R06G-X00U-C4EN

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:

Not relevant

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixture:

Chemical description: Mixture composed of additives and acrylic oligomers

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	**10 - <25 %**
	Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Skin Sens. 1A: H317 - Warning	
CAS: 34590-94-8 EC: 252-104-2 Index: Not relevant REACH: 01-2119450011-60-XXXX	**Dipropylene Glycol Methyl Ether**[2]	Not classified	**2,5 - <10 %**
	Regulation 1272/2008		
CAS: 162881-26-7 EC: 423-340-5 Index: 015-189-00-5 REACH: 01-2119489401-38-XXXX	**phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide**[1]	ATP ATP14	**1 - <2,5 %**
	Regulation 1272/2008	Aquatic Chronic 4: H413; Skin Sens. 1A: H317 - Warning	
CAS: 919-30-2 EC: 213-048-4 Index: 612-108-00-0 REACH: 01-2119480479-24-XXXX	**3-aminopropyltriethoxysilane**[1]	Self-classified	**0,1 - <1 %**
	Regulation 1272/2008	Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger	
CAS: 61791-26-2 EC: 500-153-8 Index: Not relevant REACH: Not relevant	**Amines, tallow alkyl, ethoxylated**[1]	Self-classified	**0,1 - <1 %**
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1C: H314 - Danger	
CAS: 79-92-5 EC: 201-234-8 Index: Not relevant REACH: 01-2119446293-40-XXXX	**Camphene**[1]	Self-classified	**0,1 - <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]	ATP CLP00	**<0,1 %**
	Regulation 1272/2008	Acute Tox. 3: H311; Aquatic Acute 1: H400; 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
[2] Substance with a Union workplace exposure limit

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

Other information:

Identification	Specific concentration limit
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	% (w/w) >=0,2: Skin Sens. 1 - H317

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	LD50 oral	5000 mg/kg	Rat
	LD50 dermal	9510 mg/kg	Rabbit
	LC50 inhalation vapour	Not relevant	

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

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:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

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SECTION 4: FIRST AID MEASURES (continued)

May cause an allergic skin reaction. In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes on the skin (stinging, redness, rashes, blisters), seek medical advice with this Safety Data Sheet

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for 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:

Not relevant

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. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

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.

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:

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.
Spillages in water or sea:
Small spillages:
Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.
Large spillages:
If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

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 with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

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.- Specific storage requirements

Minimum Temp.: 5 ºC

Maximum Temp.: 30 ºC

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):

Directive (EU) 2000/39, Directive 2004/37/EC,Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
Dipropylene Glycol Methyl Ether [1]	IOELV (8h)	50 ppm	308 mg/m³
CAS: 34590-94-8 EC: 252-104-2	IOELV (STEL)		

[1] Skin

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 5888-33-5	Dermal	Not relevant	Not relevant	1,39 mg/kg	Not relevant
EC: 227-561-6	Inhalation	Not relevant	Not relevant	4,9 mg/m³	Not relevant

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Dipropylene Glycol Methyl Ether	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 34590-94-8	Dermal	Not relevant	Not relevant	283 mg/kg	Not relevant
EC: 252-104-2	Inhalation	Not relevant	Not relevant	308 mg/m³	Not relevant
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 162881-26-7	Dermal	Not relevant	Not relevant	3 mg/kg	Not relevant
EC: 423-340-5	Inhalation	Not relevant	Not relevant	21 mg/m³	Not relevant
3-aminopropyltriethoxysilane	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 919-30-2	Dermal	Not relevant	Not relevant	2 mg/kg	Not relevant
EC: 213-048-4	Inhalation	Not relevant	Not relevant	14 mg/m³	Not relevant
Camphene	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 79-92-5	Dermal	1,25 mg/kg	Not relevant	0,21 mg/kg	Not relevant
EC: 201-234-8	Inhalation	110,19 mg/m³	Not relevant	110,19 mg/m³	Not relevant
2-hydroxyethyl acrylate	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 818-61-1	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
EC: 212-454-9	Inhalation	Not relevant	Not relevant	Not relevant	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	Oral	Not relevant	Not relevant	0,83 mg/kg	Not relevant
CAS: 5888-33-5	Dermal	Not relevant	Not relevant	0,83 mg/kg	Not relevant
EC: 227-561-6	Inhalation	Not relevant	Not relevant	1,45 mg/m³	Not relevant
Dipropylene Glycol Methyl Ether	Oral	Not relevant	Not relevant	36 mg/kg	Not relevant
CAS: 34590-94-8	Dermal	Not relevant	Not relevant	121 mg/kg	Not relevant
EC: 252-104-2	Inhalation	Not relevant	Not relevant	37,2 mg/m³	Not relevant
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Oral	Not relevant	Not relevant	1,5 mg/kg	Not relevant
CAS: 162881-26-7	Dermal	Not relevant	Not relevant	1,5 mg/kg	Not relevant
EC: 423-340-5	Inhalation	Not relevant	Not relevant	5,2 mg/m³	Not relevant
3-aminopropyltriethoxysilane	Oral	Not relevant	Not relevant	1 mg/kg	Not relevant
CAS: 919-30-2	Dermal	Not relevant	Not relevant	1 mg/kg	Not relevant
EC: 213-048-4	Inhalation	Not relevant	Not relevant	3,5 mg/m³	Not relevant
Camphene	Oral	0,625 mg/kg	Not relevant	0,1 mg/kg	Not relevant
CAS: 79-92-5	Dermal	0,625 mg/kg	Not relevant	0,1 mg/kg	Not relevant
EC: 201-234-8	Inhalation	54,3 mg/m³	Not relevant	54,3 mg/m³	Not relevant
2-hydroxyethyl acrylate	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 818-61-1	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
EC: 212-454-9	Inhalation	Not relevant	Not relevant	Not relevant	1,2 mg/m³

PNEC:

Identification				
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	STP	2 mg/L	Fresh water	0,001 mg/L
CAS: 5888-33-5	Soil	0,029 mg/kg	Marine water	0 mg/L
EC: 227-561-6	Intermittent	0,007 mg/L	Sediment (Fresh water)	0,145 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,015 mg/kg
Dipropylene Glycol Methyl Ether	STP	4168 mg/L	Fresh water	19 mg/L
CAS: 34590-94-8	Soil	2,74 mg/kg	Marine water	1,9 mg/L
EC: 252-104-2	Intermittent	190 mg/L	Sediment (Fresh water)	70,2 mg/kg
	Oral	Not relevant	Sediment (Marine water)	7,02 mg/kg
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	STP	1 mg/L	Fresh water	0,001 mg/L
CAS: 162881-26-7	Soil	20 mg/kg	Marine water	0,001 mg/L
EC: 423-340-5	Intermittent	0,001 mg/L	Sediment (Fresh water)	0,712 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,712 mg/kg

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
3-aminopropyltriethoxysilane	STP	1,3 mg/L	Fresh water	Not relevant
CAS: 919-30-2	Soil	Not relevant	Marine water	Not relevant
EC: 213-048-4	Intermittent	Not relevant	Sediment (Fresh water)	Not relevant
	Oral	Not relevant	Sediment (Marine water)	Not relevant
Camphene	STP	10 mg/L	Fresh water	0,001 mg/L
CAS: 79-92-5	Soil	0,021 mg/kg	Marine water	0 mg/L
EC: 201-234-8	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	STP	10 mg/L	Fresh water	0,017 mg/L
CAS: 818-61-1	Soil	0,003 mg/kg	Marine water	0,002 mg/L
EC: 212-454-9	Intermittent	0,036 mg/L	Sediment (Fresh water)	0,064 mg/kg
	Oral	Not relevant	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

If the working conditions and/or safety measures adopted do not allow keeping the airborne concentration of the product below the exposure limits (if any) or at acceptable levels (if no exposure limits exist), suitable respiratory protection equipment chosen by a qualified professional should be used.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks	CE CAT I		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+A1:2018

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	Panoramic glasses against splash/projections.	CE CAT II	EN 166:2002 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
	Work clothing	CE CAT I		Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes	CE CAT II	EN ISO 20347:2022	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2022 y EN 13832-1:2019

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

Volatile organic compounds:

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

V.O.C. (Supply):	2,52 % weight
V.O.C. density at 20 ºC:	27,02 kg/m³ (27,02 g/L)
Average carbon number:	7
Average molecular weight:	148,2 g/mol

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 ºC:	Liquid
Appearance:	Volatile
Colour:	Light yellow
Odour:	Not relevant *
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	261 ºC
Vapour pressure at 20 ºC:	7 Pa
Vapour pressure at 50 ºC:	57,75 Pa (0,06 kPa)
Evaporation rate at 20 ºC:	Not relevant *

Product description:

Density at 20 ºC:	1070,3 kg/m³
Relative density at 20 ºC:	1,08
Dynamic viscosity at 20 ºC:	≈100000 mPa·s
Kinematic viscosity at 20 ºC:	Not relevant *
Kinematic viscosity at 40 ºC:	Not relevant *
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 ºC:	Not relevant *
Partition coefficient n-octanol/water 20 ºC:	Not relevant *
Solubility in water at 20 ºC:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	Non Flammable (>60 ºC)

*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)

Flammability (solid, gas):	Not relevant *
Autoignition temperature:	265 ºC
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *
Particle characteristics:	
Median equivalent diameter:	Not relevant *

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *
Other safety characteristics:	
Surface tension at 20 ºC:	Not relevant *
Refraction index:	Not relevant *

*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	Avoid direct impact	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 (CO_2), carbon monoxide and other organic compounds.

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

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health .

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:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

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

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

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

- Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

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: Not relevant
- 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:

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.

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:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	LD50 oral	5000 mg/kg	Rat
	LD50 dermal	9510 mg/kg	Rabbit
	LC50 inhalation		
	LC50 inhalation vapour		
3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4	LD50 oral	1491 mg/kg	Rat
	LD50 dermal	4000 mg/kg	Rabbit
	LC50 inhalation		
	LC50 inhalation vapour		

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
Camphene CAS: 79-92-5 EC: 201-234-8	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal	8189 mg/kg	Rabbit
	LC50 inhalation		
	LC50 inhalation dust		
2-hydroxyethyl acrylate CAS: 818-61-1 EC: 212-454-9	LD50 oral		
	LD50 dermal	300 mg/kg	Rabbit
	LC50 inhalation		
	LC50 inhalation vapour		

11.2 Information on other hazards:

Endocrine disrupting properties

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

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

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

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	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 5888-33-5	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
EC: 227-561-6	EC50	>0.1 - 1 mg/L (72 h)		Algae
Dipropylene Glycol Methyl Ether	LC50	10000 mg/L (96 h)	Pimephales promelas	Fish
CAS: 34590-94-8	EC50	1919 mg/L (48 h)	Daphnia magna	Crustacean
EC: 252-104-2	EC50	Not relevant		
3-aminopropyltriethoxysilane	LC50	934 mg/L (96 h)	Danio rerio	Fish
CAS: 919-30-2	EC50	331 mg/L (48 h)	N/A	Crustacean
EC: 213-048-4	EC50	603 mg/L (72 h)	Desmodesmus subspicatus	Algae
Amines, tallow alkyl, ethoxylated	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 61791-26-2	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
EC: 500-153-8	EC50	>0.1 - 1 mg/L (72 h)		Algae
Camphene	LC50	0,72 mg/L (96 h)	Brachydanio rerio	Fish
CAS: 79-92-5	EC50	46 mg/L (24 h)	Daphnia magna	Crustacean
EC: 201-234-8	EC50	Not relevant		
2-hydroxyethyl acrylate	LC50	4,7 mg/L (96 h)	Pimephales promelas	Fish
CAS: 818-61-1	EC50	0,78 mg/L (48 h)	Daphnia magna	Crustacean
EC: 212-454-9	EC50	Not relevant		

Chronic toxicity:

Identification	Concentration		Species	Genus
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	NOEC	Not relevant		
CAS: 5888-33-5 EC: 227-561-6	NOEC	0,092 mg/L	Daphnia magna	Crustacean
Dipropylene Glycol Methyl Ether	NOEC	Not relevant		
CAS: 34590-94-8 EC: 252-104-2	NOEC	0,5 mg/L	Daphnia magna	Crustacean
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	NOEC	Not relevant		
CAS: 162881-26-7 EC: 423-340-5	NOEC	0,0081 mg/L	Daphnia magna	Crustacean
2-hydroxyethyl acrylate	NOEC	Not relevant		
CAS: 818-61-1 EC: 212-454-9	NOEC	1,8 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Substance-specific information:

Identification	Degradability		Biodegradability	
Dipropylene Glycol Methyl Ether	BOD5	Not relevant	Concentration	Not relevant
CAS: 34590-94-8	COD	0 g O2/g	Period	28 days
EC: 252-104-2	BOD5/COD	Not relevant	% Biodegradable	73 %
3-aminopropyltriethoxysilane	BOD5	Not relevant	Concentration	Not relevant
CAS: 919-30-2	COD	Not relevant	Period	28 days
EC: 213-048-4	BOD5/COD	Not relevant	% Biodegradable	67 %
Camphene	BOD5	Not relevant	Concentration	100 mg/L
CAS: 79-92-5	COD	Not relevant	Period	28 days
EC: 201-234-8	BOD5/COD	Not relevant	% Biodegradable	4 %
2-hydroxyethyl acrylate	BOD5	Not relevant	Concentration	100 mg/L
CAS: 818-61-1	COD	Not relevant	Period	28 days
EC: 212-454-9	BOD5/COD	Not relevant	% Biodegradable	78 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
Dipropylene Glycol Methyl Ether	BCF	1
CAS: 34590-94-8	Pow Log	-0.06
EC: 252-104-2	Potential	Low
Camphene	BCF	1290
CAS: 79-92-5	Pow Log	4.22
EC: 201-234-8	Potential	Very High
2-hydroxyethyl acrylate	BCF	0.41
CAS: 818-61-1	Pow Log	-0.21
EC: 212-454-9	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Camphene	Koc	Not relevant	Henry	Not relevant
CAS: 79-92-5	Conclusion	Not relevant	Dry soil	Not relevant
EC: 201-234-8	Surface tension	1,098E-2 N/m (205,93 ºC)	Moist soil	Not relevant
2-hydroxyethyl acrylate	Koc	Not relevant	Henry	Not relevant
CAS: 818-61-1	Conclusion	Not relevant	Dry soil	Not relevant
EC: 212-454-9	Surface tension	2,487E-2 N/m (25 ºC)	Moist soil	Not relevant

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:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11* 15 01 10*	waste paint and varnish containing organic solvents or other hazardous substances packaging containing residues of or contaminated by hazardous substances	Hazardous

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

HP14 Ecotoxic, HP13 Sensitising

Waste management (disposal and evaluation):

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

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-hazardous 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:**	Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:



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:	Not relevant
14.7	**Maritime transport in bulk according to IMO instruments:**	Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2025:



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:**	Not relevant

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SECTION 15: REGULATORY INFORMATION

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

- Article 95, REGULATION (EU) No 528/2012: Not relevant
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

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.:

Not relevant

Texts of the legislative phrases mentioned in section 2:

H411: Toxic to aquatic life with long lasting effects.
H317: May cause an allergic skin reaction.

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.
Aquatic Acute 1: H400 - Very toxic to aquatic life.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
Aquatic Chronic 4: H413 - May cause long lasting harmful effects to aquatic life.
Eye Dam. 1: H318 - Causes serious eye damage.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Sol. 2: H228 - Flammable solid.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.

Classification procedure:

Aquatic Chronic 2: Calculation method
Skin Sens. 1A: 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:

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SECTION 16: OTHER INFORMATION (continued)

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 -