




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

- 1.1 Product identifier:** ABchimie - UV conformal coating
ABchimie526UV LED DS140
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Resin. For professional user/industrial user 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:**
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:**

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) n° 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335
- 2.2 Label elements:**
CLP Regulation (EC) n° 1272/2008:
Warning

Hazard statements:
Aquatic Chronic 2: H411 - 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. 1A: H317 - May cause an allergic skin reaction
STOT SE 3: H335 - May cause respiratory irritation
Precautionary statements:
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P313: If skin irritation or rash occurs: Get medical advice/attention
P363: Wash contaminated clothing before reuse
P391: Collect spillage
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment
Supplementary information:
EUH204: Contains isocyanates. May produce an allergic reaction
Substances that contribute to the classification
Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked; Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; 2-phenoxyethyl acrylate; Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
- 2.3 Other hazards:**
Non-applicable

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:



















Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of additives and acrylic oligomers

Components:

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 264888-31-5 EC: Non-applicable Index: Non-applicable REACH Non-applicable	Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked Self-classified	50 - <75 %
	Regulation 1272/2008 Aquatic Chronic 3: H412; Skin Sens. 1B: H317 - Warning 	
CAS: 5888-33-5 EC: 227-561-6 Index: 607-133-00-9 REACH 01-2119957862-25-XXXX	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate ATP CLP00	10 - <25 %
	Regulation 1272/2008 Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning  	
CAS: 2399-48-6 EC: 219-268-7 Index: Non-applicable REACH Non-applicable	Tetrahydrofurfuryl acrylate Self-classified	10 - <25 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning 	
CAS: 48145-04-6 EC: 256-360-6 Index: 607-133-00-9 REACH 01-2119980532-35-XXXX	2-phenoxyethyl acrylate Self-classified	2,5 - <10 %
	Regulation 1272/2008 Aquatic Chronic 2: H411; Skin Sens. 1A: H317 - Warning  	
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 ATP CLP00	2,5 - <10 %
	Regulation 1272/2008 Aquatic Chronic 4: H413; Skin Sens. 1: H317 - Warning 	
CAS: 4083-64-1 EC: 223-810-8 Index: 615-012-00-7 REACH 01-2119980050-47-XXXX	4-isocyanatosulphonyltoluene ATP CLP00	0,1 - <1 %
	Regulation 1272/2008 Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; STOT SE 3: H335; EUH014 - Danger  	
CAS: 79-92-5 EC: 201-234-8 Index: Non-applicable REACH 01-2119446293-40-XXXX	Camphene Self-classified	0,1 - <1 %
	Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Irrit. 2: H319; Flam. Sol. 2: H228 - Warning   	
CAS: 55406-53-6 EC: 259-627-5 Index: 616-212-00-7 REACH Non-applicable	3-iodo-2-propynyl Butylcarbamate ATP ATP06	<0,1 %
	Regulation 1272/2008 Acute Tox. 3: H331; Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Sens. 1: H317; STOT RE 1: H372 - Danger    	
CAS: 107-98-2 EC: 203-539-1 Index: 603-064-00-3 REACH 01-2119457435-35-XXXX	1-methoxy-2-propanol ATP ATP01	<0,1 %
	Regulation 1272/2008 Flam. Liq. 3: H226; STOT SE 3: H336 - Warning  	

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

** Changes with regards to the previous version

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:

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:

Contains substances that react violently with water. Remove contaminated clothing and shoes, clean the affected area with care. In the case of serious reaction consult a doctor. If the product produces burns or freezing, do not remove clothing as it could worsen the injury. In case of blisters forming on the skin, do not burst them as it could increase the risk of infection.

By eye contact:

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SECTION 4: FIRST AID MEASURES (continued)

Contains substances that react violently with water. Clean the affected area with care. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. Request immediate medical assistance, showing the SDS of this 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:

WARNING! Product that contains substances that react violently with water. NEVER USE WATER TO EXTINGUISH THE FIRE. If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂).

5.2 Special hazards arising from the substance or mixture:

Contains substances that react violently with water.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. 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. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, 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:

AVOID CONTACT WITH WATER. Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those who do not have protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

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:

DO NOT USE WATER TO CLEAN.

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.- Precautions for safe manipulation

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

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SECTION 7: HANDLING AND STORAGE (continued)

Avoid contact with water and the evaporation of the product, as it could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid projections and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

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

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 work environment

Identification	Environmental limits		
	IOELV (8h)	IOELV (STEL)	Year
1-methoxy-2-propanol CAS: 107-98-2 EC: 203-539-1	100 ppm	150 ppm	375 mg/m ³ 563 mg/m ³

DNEL (Workers):

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	Non-applicable	Non-applicable
2-phenoxyethyl acrylate CAS: 48145-04-6 EC: 256-360-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	10 mg/m ³	77 mg/m ³
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide CAS: 162881-26-7 EC: 423-340-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	3,3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	7,8 mg/m ³	Non-applicable
4-isocyanatosulphonyltoluene CAS: 4083-64-1 EC: 223-810-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3,24 mg/m ³	Non-applicable
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/m ³	Non-applicable	110,19 mg/m ³	Non-applicable
1-methoxy-2-propanol CAS: 107-98-2 EC: 203-539-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	50,6 mg/kg	Non-applicable
	Inhalation	Non-applicable	553,5 mg/m ³	369 mg/m ³	Non-applicable

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	Non-applicable	Non-applicable

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide CAS: 162881-26-7 EC: 423-340-5	Oral	Non-applicable	Non-applicable	1,7 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,7 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1,9 mg/m ³	Non-applicable
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/m ³	Non-applicable	54,3 mg/m ³	Non-applicable
1-methoxy-2-propanol CAS: 107-98-2 EC: 203-539-1	Oral	Non-applicable	Non-applicable	3,3 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	18,1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	43,9 mg/m ³	Non-applicable

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	0,00092 mg/L
	Soil	0,0285 mg/kg	Marine water	0,000092 mg/L
	Intermittent	0,00704 mg/L	Sediment (Fresh water)	0,145 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0145 mg/kg
2-phenoxyethyl acrylate CAS: 48145-04-6 EC: 256-360-6	STP	1,77 mg/L	Fresh water	0,002 mg/L
	Soil	0,006 mg/kg	Marine water	0,0002 mg/L
	Intermittent	0,0121 mg/L	Sediment (Fresh water)	0,02 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,002 mg/kg
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide CAS: 162881-26-7 EC: 423-340-5	STP	1 mg/L	Fresh water	0,001 mg/L
	Soil	Non-applicable	Marine water	0,001 mg/L
	Intermittent	0,001 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
4-isocyanatosulphonyltoluene CAS: 4083-64-1 EC: 223-810-8	STP	0,4 mg/L	Fresh water	0,03 mg/L
	Soil	0,0168 mg/kg	Marine water	0,003 mg/L
	Intermittent	0,3 mg/L	Sediment (Fresh water)	0,172 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0172 mg/kg
Camphene CAS: 79-92-5 EC: 201-234-8	STP	10 mg/L	Fresh water	0,00072 mg/L
	Soil	0,0211 mg/kg	Marine water	0,000072 mg/L
	Intermittent	0,00072 mg/L	Sediment (Fresh water)	0,0262 mg/kg
	Oral	2,08 g/kg	Sediment (Marine water)	0,00262 mg/kg
1-methoxy-2-propanol CAS: 107-98-2 EC: 203-539-1	STP	100 mg/L	Fresh water	10 mg/L
	Soil	5,49 mg/kg	Marine water	1 mg/L
	Intermittent	100 mg/L	Sediment (Fresh water)	52,3 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	5,2 mg/kg



8.2 Exposure controls:

A.- General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protection 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		EN 405:2001+A1:2009	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

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks			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 420 and EN 374.

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.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			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 6529:2001, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2012	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 y EN 13832-1

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

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):	4,07 % weight
V.O.C. density at 20 °C:	44,67 kg/m ³ (44,67 g/L)
Average carbon number:	6,94
Average molecular weight:	147,13 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 °C:	Liquid
Appearance:	Transparent
Colour:	Yellowish
Odour:	Not available
Odour threshold:	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)

Volatility:

Boiling point at atmospheric pressure:	250 °C
Vapour pressure at 20 °C:	40 Pa
Vapour pressure at 50 °C:	292 Pa (0 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1098 kg/m ³
Relative density at 20 °C:	1,1
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	140 - 300 cSt
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
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 *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	102 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	180 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

9.2 Other information:

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.

10.2 Chemical stability:

Chemically stable under the 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
Not applicable	Not applicable	Precaution	Avoid direct impact	Precaution

10.5 Incompatible materials:

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

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SECTION 10: STABILITY AND REACTIVITY (continued)

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.

SECTION 11: TOXICOLOGICAL INFORMATION **

11.1 Information on toxicological effects:

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

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health 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 dangerous 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 dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous 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 dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: 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, however, it does contain substances which are classified as dangerous due to repetitive exposure. 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 dangerous 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 dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked	5500 mg/kg	Non-applicable	Rat
CAS: 264888-31-5	LC50 inhalation	Non-applicable	
EC: Non-applicable			

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
4-isocyanatosulphonyltoluene CAS: 4083-64-1 EC: 223-810-8	2600 mg/kg	Non-applicable	Rat
	Non-applicable	Non-applicable	
	Non-applicable	Non-applicable	
Camphene CAS: 79-92-5 EC: 201-234-8	5500 mg/kg	8189 mg/kg	Rat
	8189 mg/kg	Non-applicable	Rabbit
	Non-applicable	Non-applicable	
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6 EC: 259-627-5	1100 mg/kg	2100 mg/kg	Rat
	2100 mg/kg	Non-applicable	Rabbit
	Non-applicable	Non-applicable	

** Changes with regards to the previous version

SECTION 12: ECOLOGICAL INFORMATION **

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

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
	LC50	EC50		
Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate-blocked CAS: 264888-31-5 EC: Non-applicable	Non-applicable			
	58 mg/L (48 h)		Daphnia magna	Crustacean
	Non-applicable			
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate CAS: 5888-33-5 EC: 227-561-6	1 - 10 mg/L (96 h)			Fish
	1 - 10 mg/L			Crustacean
	1 - 10 mg/L			Algae
2-phenoxyethyl acrylate CAS: 48145-04-6 EC: 256-360-6	1 - 10 mg/L (96 h)			Fish
	1 - 10 mg/L			Crustacean
	1 - 10 mg/L			Algae
4-isocyanatosulphonyltoluene CAS: 4083-64-1 EC: 223-810-8	597 mg/L (96 h)		Brachydanio rerio	Fish
	Non-applicable			
	Non-applicable			
Camphene CAS: 79-92-5 EC: 201-234-8	0.72 mg/L (96 h)		Brachydanio rerio	Fish
	46 mg/L (24 h)		Daphnia magna	Crustacean
	Non-applicable			
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6 EC: 259-627-5	0.07 mg/L (96 h)		Oncorhynchus mykiss	Fish
	0.09 mg/L (96 h)		Mysidopsis bahia	Crustacean
	0.05 mg/L (72 h)		Scenedesmus subspicatus	Algae
1-methoxy-2-propanol CAS: 107-98-2 EC: 203-539-1	20800 mg/L (96 h)		Pimephales promelas	Fish
	23300 mg/L (48 h)		Daphnia magna	Crustacean
	1000 mg/L (168 h)		Selenastrum capricornutum	Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
	BOD5	COD	Concentration	Period
Camphene CAS: 79-92-5 EC: 201-234-8	Non-applicable	Non-applicable	100 mg/L	28 days
	Non-applicable	Non-applicable	% Biodegradable	4 %
	Non-applicable	Non-applicable		
1-methoxy-2-propanol CAS: 107-98-2 EC: 203-539-1	Non-applicable	Non-applicable	100 mg/L	28 days
	Non-applicable	Non-applicable	% Biodegradable	90 %
	Non-applicable	Non-applicable		

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	BCF	Pow Log
Camphene CAS: 79-92-5 EC: 201-234-8	1290	4.22
		Very High

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



SECTION 12: ECOLOGICAL INFORMATION ** (continued)

Identification	Bioaccumulation potential	
	BCF	Pow Log
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6 EC: 259-627-5	36	2.4
1-methoxy-2-propanol CAS: 107-98-2 EC: 203-539-1	Moderate	3
	Pow Log	-0.44
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Koc	Henry	Dry soil	Moist soil
Camphene CAS: 79-92-5 EC: 201-234-8	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Conclusion	Dry soil	Non-applicable	Non-applicable
	Surface tension	1,098E-2 N/m (205,93 °C)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

** Changes with regards to the previous version

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
20 01 27*	Paint, inks, adhesives and resins other than those mentioned in 20 01 27	Dangerous

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

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

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. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°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 2015 and RID 2015:

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SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN 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 Dangerous for the environment: Yes
14.6 Special precautions for user
Special regulations: 274, 335, 375, 601
Tunnel restriction code: E
Physico-Chemical properties: see section 9
Limited quantities: 5 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 37-14:



- 14.1 UN 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 Dangerous for the environment: Yes
14.6 Special precautions for user
Special regulations: 274, 909
EmS Codes: F-A, S-F
Physico-Chemical properties: see section 9
Limited quantities: 5 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2015:



- 14.1 UN 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 Dangerous for the environment: Yes
14.6 Special precautions for user
Physico-Chemical properties: see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains 3-iodo-2-propynyl Butylcarbamate.

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable

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

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: 3-iodo-2-propynyl Butylcarbamate (Product-type 6, 7, 8, 9, 10, 13)

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

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SECTION 15: REGULATORY INFORMATION (continued)

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 data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, 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:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EC) N° 2015/830)

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

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):

- Added Content
Camphene (79-92-5)

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
- H315: Causes skin irritation
- H335: May cause respiratory irritation
- 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) n° 1272/2008:

- Acute Tox. 3: H331 - Toxic if inhaled
- 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 2: H411 - Toxic to aquatic life with long lasting effects
- Aquatic Chronic 3: H412 - Harmful 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. Liq. 3: H226 - Flammable liquid and vapour
- Flam. Sol. 2: H228 - Flammable solid
- Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- Skin Irrit. 2: H315 - Causes skin irritation
- Skin Sens. 1: H317 - May cause an allergic skin reaction
- Skin Sens. 1A: H317 - May cause an allergic skin reaction
- Skin Sens. 1B: H317 - May cause an allergic skin reaction
- STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure
- STOT SE 3: H335 - May cause respiratory irritation
- STOT SE 3: H336 - May cause drowsiness or dizziness

Classification procedure:

- Aquatic Chronic 2: Calculation method
- Skin Sens. 1A: Calculation method
- Skin Irrit. 2: Calculation method
- STOT SE 3: Calculation method
- Eye Irrit. 2: Calculation method

Advice related to training:

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

Principal bibliographical sources:

- CONTINUED ON NEXT PAGE -



SECTION 16: OTHER INFORMATION (continued)

<http://esis.jrc.ec.europa.eu>

<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: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol–water partition coefficient

Koc: Partition coefficient of organic carbon

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 -