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

1.1. Product identifier

Impact-Filler

Further trade names

Impact-Filler
Résine de fintion
Resina de acabado

UFI: 6JQR-RHPC-D855-5D51

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

Use of the substance/mixture

UV Windscreen adhesive, Filler

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	PMA/TOOLS GmbH
Street:	Siemensring 42
Place:	D-47877 Willich - Germany
Telephone:	+49 2154 922230
E-mail:	info@pma-tools.de
Contact person:	Labor
E-mail:	msds@pma-tools.de (Please DO NOT use for requesting Safety Data Sheets.)
Internet:	www.pma-tools.de
Responsible Department:	Laboratory

1.4. Emergency telephone number:

Telephone number of the company in case of emergencies (24 h):
+49 (0) 700 / 24 112 112 (PMR)
+1 872 5888271 (PMR)

Emergency information services / official advisory body:
<UK> National Poisons Information Service (24 h): 0870 600 6266 (UK only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Acute Tox. 4; H312
Skin Irrit. 2; H315
Eye Irrit. 2; H319
Skin Sens. 1; H317
STOT SE 3; H335
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements

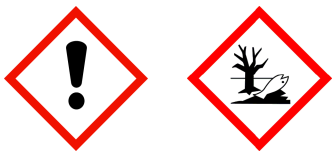
GB CLP Regulation

Hazard components for labelling

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate)
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
methacrylic acid; 2-methylpropenoic acid

Signal word: Warning

Pictograms:



Hazard statements

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

Precautionary statements

P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
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.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of the following substances with non-hazardous additions.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate)			45 - < 50 %
	227-561-6		01-2119957862-25	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1B, STOT SE 3, Aquatic Chronic 1; H315 H319 H317 H335 H410			
42978-66-5	(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate			20 - < 25 %
	256-032-2	607-249-00-X	01-2119484613-34	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3, Aquatic Chronic 2; H315 H319 H317 H335 H411			
7473-98-5	2-hydroxy-2-methylpropiophenone			5 - < 10 %
	231-272-0		01-2119472306-39	
	Acute Tox. 4, Aquatic Chronic 3; H302 H412			
79-41-4	methacrylic acid; 2-methylpropenoic acid			< 1 %
	201-204-4	607-088-00-5	01-2119463884-26	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A; H312 H302 H314			
79-92-5	Camphene			< 1 %
	201-234-8		01-2119446293-40	
	Flam. Sol. 2, Eye Irrit. 2, Aquatic Chronic 1; H228 H319 H410			
818-61-1	2-hydroxyethyl acrylate			< 1 %
	212-454-9	607-072-00-8	01-2119459345-34	
	Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1, Aquatic Acute 1; H311 H314 H317 H400			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
5888-33-5	227-561-6	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate)	45 - < 50 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = 4890 mg/kg		
42978-66-5	256-032-2	(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate	20 - < 25 %
	inhalation: LC50 = 118 mg/l (vapours); oral: LD50 = 6800 mg/kg STOT SE 3; H335: >= 10 - 100		
7473-98-5	231-272-0	2-hydroxy-2-methylpropiophenone	5 - < 10 %
	oral: LD50 = 1694 mg/kg		
79-41-4	201-204-4	methacrylic acid; 2-methylpropenoic acid	< 1 %
	inhalation: LC50 = 1,5 mg/l (vapours); inhalation: LC50 = 1,5 mg/l (dusts or mists); dermal: LD50 = 500 mg/kg; oral: LD50 = 1320 mg/kg STOT SE 3; H335: >= 1 - 100		
79-92-5	201-234-8	Camphene	< 1 %
	dermal: LD50 = 8189 mg/kg; oral: LD50 = > 5000 mg/kg		
818-61-1	212-454-9	2-hydroxyethyl acrylate	< 1 %
	dermal: LD50 = 300 mg/kg; oral: LD50 = 500 mg/kg Skin Sens. 1; H317: >= 0,2 - 100		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.
Never give anything by mouth to an unconscious person or a person with cramps.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

After contact with skin

Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of soap and water. In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician in any case!

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

Following inhalation: May cause respiratory irritation.
Following skin contact: Causes skin irritation. May cause an allergic skin reaction.
After eye contact: Causes serious eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam. Dry extinguishing powder. Carbon dioxide (CO2). Water spray jet. Sand
Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide.(CO), Carbon dioxide (CO2), Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit
Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8).

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.
Unsuitable material for taking up: Sawdust (Combustible substance)!

6.4. Reference to other sections

SECTION 7: Handling and storage

See section 8. Use personal protection equipment.
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wash contaminated clothing before reuse.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Take off contaminated clothing and wash it before reuse. Used working clothes should not be worn outside the work area. Street clothing should be stored separately from work clothing.
Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed in a cool, well-ventilated place. Keep container dry.

Hints on joint storage

Avoid: Strong acid. Strong alkali
Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Protect against: UV-radiation/sunlight, Light, Heat, Frost.
storage temperature: 5 - 30 °C

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
79-41-4	Methacrylic acid	20	72		TWA (8 h)	WEL
		40	143		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate)			
Worker DNEL, long-term		dermal	systemic	1,39 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	4,9 mg/m³
Consumer DNEL, long-term		oral	systemic	0,83 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,83 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,45 mg/m³
42978-66-5	(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate			
Worker DNEL, long-term		dermal	systemic	1,7 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	2,35 mg/m³
7473-98-5	2-hydroxy-2-methylpropiophenone			
Worker DNEL, long-term		dermal	systemic	1 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	3,5 mg/m³
Consumer DNEL, long-term		oral	systemic	0,4 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,9 mg/m³
79-41-4	methacrylic acid; 2-methylpropenoic acid			
Worker DNEL, long-term		dermal	systemic	4,25 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	29,6 mg/m³
Consumer DNEL, long-term		dermal	systemic	2,55 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	6,3 mg/m³
79-92-5	Camphene			
Worker DNEL, acute		dermal	systemic	1,25 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	110,19 mg/m³
Worker DNEL, long-term		dermal	systemic	0,21 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	110,19 mg/m³
Consumer DNEL, acute		oral	systemic	0,625 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	0,625 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	54,3 mg/m³
Consumer DNEL, long-term		oral	systemic	0,1 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,1 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	54,3 mg/m³
818-61-1	2-hydroxyethyl acrylate			
Worker DNEL, long-term		inhalation	local	2,4 mg/m³
Consumer DNEL, long-term		inhalation	local	1,2 mg/m³

PNEC values

CAS No	Substance	
Environmental compartment		Value
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate)	
Freshwater		0,001 mg/l
Freshwater (intermittent releases)		0,007 mg/l
Marine water		0 mg/l
Freshwater sediment		0,145 mg/kg
Marine sediment		0,015 mg/kg
Soil		0,029 mg/kg
42978-66-5	(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate	
Freshwater		0,005 mg/l
Freshwater (intermittent releases)		0,046 mg/l
Marine water		0 mg/l
Freshwater sediment		0,487 mg/kg
Marine sediment		0,049 mg/kg
Soil		0,095 mg/kg
7473-98-5	2-hydroxy-2-methylpropiophenone	
Freshwater		0,002 mg/l
Freshwater (intermittent releases)		0,019 mg/l
Marine water		0 mg/l
Freshwater sediment		0,009 mg/kg
Marine sediment		0,001 mg/kg
Soil		0,001 mg/kg
79-92-5	Camphene	
Freshwater		0,001 mg/l
Freshwater (intermittent releases)		0,001 mg/l
Marine water		0 mg/l
Freshwater sediment		0,026 mg/kg
Marine sediment		0,003 mg/kg
Soil		0,021 mg/kg
818-61-1	2-hydroxyethyl acrylate	
Freshwater		0,017 mg/l
Freshwater (intermittent releases)		0,036 mg/l
Marine water		0,002 mg/l
Freshwater sediment		0,064 mg/kg
Marine sediment		0,003 mg/kg
Soil		0,003 mg/kg

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles. (EN 166)

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Wear suitable gloves. (EN 374).
Recommended material: Butyl caoutchouc (butyl rubber)
Thickness of the glove material: >= 0,5 mm
Breakthrough time:: Index No. 2, > 30 Min. / Index No. 6, > 480 Min.
Replace when worn.

Skin protection

Use personal protection equipment.
When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. (89/686/EWG).
Recommended protective clothing articles: compliant EN 14605 / EN 13982

Respiratory protection

Usually no personal respirative protection necessary. Provide adequate ventilation as well as local exhaustion at critical locations. In case of inadequate ventilation wear respiratory protection. (Combination filtering device, Filter type: A) (EN 140, EN 136), (EN 14387) The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Thermal hazards

Exothermic reaction with: UV-radiation/sunlight.

Environmental exposure controls

Do not allow to enter into surface water or drains. Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	characteristic
Odour threshold:	No data available

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	270 °C
Flash point:	> 60 °C

Flammability

Solid/liquid:	not applicable
	not applicable

Explosive properties

not explosive according to EU A.14

Lower explosion limits:	No data available
Upper explosion limits:	No data available
Auto-ignition temperature:	214 °C

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	No data available
pH-Value:	6
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Water solubility:	No data available

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	0,79 hPa
Vapour pressure: (at 50 °C)	4,22 hPa
Density (at 20 °C):	1,049 g/cm³

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties

No data available

Other safety characteristics

Solid content:	not determined
Evaporation rate:	not determined

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.
The product is: Sensitivity to light (photosentive). exothermic Polymerisation.

10.4. Conditions to avoid

UV-radiation/sunlight, Light, Heat, Frost.

10.5. Incompatible materials

Strong alkali, Strong acid

10.6. Hazardous decomposition products

After intended use: No known hazardous decomposition products.
Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Harmful in contact with skin.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate)				
	oral	LD50 4890 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit		
42978-66-5	(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate				
	oral	LD50 6800 mg/kg	Rat		
	inhalation vapour	LC50 118 mg/l	Rat		
7473-98-5	2-hydroxy-2-methylpropiophenone				
	oral	LD50 1694 mg/kg	Rat		
79-41-4	methacrylic acid; 2-methylpropenoic acid				
	oral	LD50 1320 mg/kg	Rat		
	dermal	LD50 500 mg/kg	Rabbit		
	inhalation vapour	LC50 1,5 mg/l			
	inhalation dust/mist	LC50 1,5 mg/l			
79-92-5	Camphene				
	oral	LD50 > 5000 mg/kg	Rat		
	dermal	LD50 8189 mg/kg	Rabbit		
818-61-1	2-hydroxyethyl acrylate				
	oral	LD50 500 mg/kg			
	dermal	LD50 300 mg/kg	Rabbit		

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate); (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate; 2-hydroxyethyl acrylate)

Carcinogenic/mutagenic/toxic effects for reproduction

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

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

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

STOT-single exposure

May cause respiratory irritation. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate); (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate)

STOT-repeated exposure

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

Aspiration hazard

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

Information on likely routes of exposure

Dermal, inhalation, Eye contact

11.2. Information on other hazards

Endocrine disrupting properties

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

There are no data available on the mixture itself. The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate)						
	Acute fish toxicity	LC50	1,8 mg/l	96 h	Danio rerio (zebrafish)		
	Acute algae toxicity	ErC50	2,7 mg/l	96 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50	1,1 mg/l	48 h	Daphnia magna (Big water flea)		
42978-66-5	(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate						
	Acute fish toxicity	LC50	5,5 mg/l	96 h	Leuciscus idus (golden orfe)		
	Acute algae toxicity	ErC50	28 mg/l	72 h	Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50	88,7 mg/l	48 h	Daphnia magna (Big water flea)		
7473-98-5	2-hydroxy-2-methylpropiophenone						
	Acute fish toxicity	LC50	> 10 - 100 mg/l	96 h	Fish		
	Acute algae toxicity	ErC50	> 10 - 100 mg/l	72 h	Algae		
	Acute crustacea toxicity	EC50	> 10 - 100 mg/l	48 h	Crustacea		
79-41-4	methacrylic acid; 2-methylpropenoic acid						
	Acute crustacea toxicity	EC50	130 mg/l	48 h	Daphnia magna (Big water flea)		
	Crustacea toxicity	NOEC	53 mg/l	21 d	Daphnia magna (Big water flea)		
79-92-5	Camphene						
	Acute fish toxicity	LC50	0,72 mg/l	96 h	Danio rerio (zebrafish)		
	Acute crustacea toxicity	EC50	46 mg/l	48 h	Daphnia magna (Big water flea)		
818-61-1	2-hydroxyethyl acrylate						
	Acute fish toxicity	LC50	> 0,1 - 1 mg/l	96 h	Fish		
	Acute algae toxicity	ErC50	> 0,1 - 1 mg/l	72 h	Algae		
	Acute crustacea toxicity	EC50	> 0,1 - 1 mg/l	48 h	Crustacea		
	Crustacea toxicity	NOEC	1,8 mg/l	21 d	Daphnia magna (Big water flea)		

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
79-41-4	methacrylic acid; 2-methylpropenoic acid			
	Biodegradation	86 %	28	
	Concentration 3 mg/L			
79-92-5	Camphene			
	Biodegradation	4 %	28	
	Concentration 100 mg/L			
818-61-1	2-hydroxyethyl acrylate			
	Biodegradation	78 %	28	
	Concentration 100 mg/L			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
42978-66-5	(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate	2,77
79-92-5	Camphene	4,22
818-61-1	2-hydroxyethyl acrylate	-0,21

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.
The waste key according to the European Waste Catalogue (EWC number) refers to the real wastes origin and therefore is not product- but use-oriented. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Recommendation: EAK 080409

List of Wastes Code - residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate))
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9

Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	90
Tunnel restriction code:	-

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate))
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9

Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate))
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9

Special Provisions:	274, 335, 969
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-F
Segregation group:	azides

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate))

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Special Provisions:	A97 A158 A197
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y964
Excepted quantity:	E1
IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

Danger releasing substance: Marine pollutant.
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate (Isobornyl acrylate)

14.6. Special precautions for user

See SECTION 9: Physical and chemical properties

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Directive 2010/75/EU on industrial emissions:	0 %
Information according to Directive 2012/18/EU (SEVESO III):	E1 Hazardous to the Aquatic Environment

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D):	3 - highly hazardous to water
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s):

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways).
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
ATE: Acute Toxicity Estimate.
AwSV: Anlagenverordnung wassergefährdender Stoffe (Regulation on facilities handling substances dangerous to water).
BGI: Berufsgenossenschaftliche Informationen (trade association information).
BGR: Berufsgenossenschaftliche Regeln (trade association regulation).
CAS: Chemical Abstracts Service.
CEN: Comité Européen de Normalisation European (Committee for Standardization).
CLP: Classification, Labelling and Packaging of substances and mixtures (REGULATION (EC) No 1272/2008).
DIN: Deutsches Institut für Normung (German institute for standardization).
DMEL: Derived Minimum Effect Level.
DNEL: Derived No Effect Level.
EC: European Community.
EC50: Half maximal effective concentration.
ECHA: European Chemicals Agency.
EG: Europäische Gemeinschaft (European Community).
EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
EN: European Norms.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
IATA-DGR: International Air Transport Association - Dangerous Goods Regulations.
IBC: Intermediate Bulk Container.
IC50 / ErC50: Inhibitory concentration, 50 %.
ICAO-TI: International Civil Aviation Organization - Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Code for Dangerous Goods.
ISO: International Organization for Standardization.
IUPAC: International Union for Pure and Applied Chemistry.
LC50: Lethal concentration, 50 %.
LD50: Lethal dose, 50 %.
log Kow (Pow): Partition coefficient n-octanol/water.
LQ: Limited Quantities.
MARPOL: International Convention for the Prevention of Marine Pollution from Ships.
OECD: Organisation for Economic Co-operation and Development.
PBT: persistent, bioaccumulative and toxic.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006).
RID: Règlement concernant le transport International ferroviaire de marchandises Dangereuses (Regulation concerning the International Carriage of Dangerous Goods by Rail).
SVHC: Substances of Very High Concern.
STOT - RE: Specific Target Organ Toxicity - Repeated Exposure.
STOT - SE: Specific Target Organ Toxicity - Single Exposure.
TRGS: Technische Regel für Gefahrstoffe (technical guideline for the handling of hazardous materials).
UFI: Unique Formula Identifier.
UN: Untited Nations.
VOC: Volatile organic compounds.
vPvB: very persistent and very bioaccumulative.
WGK: Wassergefährdungsklasse (water hazard class).

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Acute Tox. 4; H312	
Skin Irrit. 2; H315	
Eye Irrit. 2; H319	
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method
Aquatic Chronic 1; H410	

Relevant H and EUH statements (number and full text)

H228	Flammable solid.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)