



Safety Data Sheet according to Regulation (EC) No 1907/2006

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SDS No. : 393395
V006.0

LOCTITE ECCOBOND FP 5201 known as Hysol FP5201 (16g)

Revision: 29.06.2018
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Replaces version from: 22.03.2016

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

1.1. Product identifier

LOCTITE ECCOBOND FP 5201 known as Hysol FP5201 (16g)

Contains:

Dicyclopentylidimethylene diacrylate
Ethoxylated bisphenol A dimethacrylate esters
Epoxy Acrylate Oligomer
Tert-butyl perbenzoate

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

Intended use:
Sample only.

1.3. Details of the supplier of the safety data sheet

Henkel Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word:	Warning
Hazard statement:	H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long lasting effects.
Precautionary statement:	P280 Wear protective gloves. P273 Avoid release to the environment.
Precautionary statement:	P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
Response	

2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****General chemical description:**

Acrylate adhesive

Base substances of preparation:

Filler

Acrylate

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Dicyclopentylidimethylene diacrylate 42594-17-2	255-901-3 01-2120051112-76	10- 20 %	Skin Sens. 1 H317 Aquatic Chronic 2 H411
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	609-946-4 01-2119980659-17	5- < 10 %	Aquatic Chronic 4 H413
Epoxy Acrylate Oligomer 55818-57-0	500-130-2 01-2119490020-53	1- < 5 %	Skin Sens. 1 H317
Amines, C36-alkylenedi-, maleated 682800-79-9		1- < 5 %	Acute Tox. 4 H302 Acute Tox. 4 H312 Skin Irrit. 2 H315
Trimethylolpropane triacrylate 15625-89-5	239-701-3 01-2119489896-11	1- < 3 %	Eye Irrit. 2 H319 Skin Irrit. 2 H315 Skin Sens. 1 H317
Tert-butyl perbenzoate 614-45-9	210-382-2 01-2119513317-46	0,1- < 1 %	Org. Perox. C H242 Skin Irrit. 2; Dermal H315 Acute Tox. 4; Inhalation H332 Skin Sens. 1 H317 Aquatic Acute 1 H400 Aquatic Chronic 3 H412

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

Prolonged or repeated contact may cause eye irritation.

SKIN: Rash, Urticaria.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide.

Fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.

The product may undergo spontaneous polymerization at high temperatures. Polymerization is exothermic and may cause damage to the container and/or release of thermal decomposition products.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Wear protective equipment.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.
 Use only in well-ventilated areas.
 See advice in section 8
 Do not spray onto flame or red-hot objects.
 Avoid open flames.

Hygiene measures:

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

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container.
 Protect against contamination.
 Store in a cool place in closed original container.
 Must be stored in a room with spill collection facilities.
 Keep away from heat and direct sunlight.
 Keep container in a well ventilated place.

7.3. Specific end use(s)

Sample only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
 Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure Limits

Valid for
 Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, TOTAL INHALABLE DUST]		6	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate 42594-17-2	aqua (freshwater)		0,0016 mg/l				
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate 42594-17-2	aqua (marine water)		0,00016 mg/l				
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate 42594-17-2	sediment (freshwater)				0,6576 mg/kg		
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate 42594-17-2	sediment (marine water)				0,0658 mg/kg		
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate 42594-17-2	soil				0,1306 mg/kg		
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate 42594-17-2	sewage treatment plant (STP)		10 mg/l				
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate 42594-17-2	aqua (intermittent releases)		0,016 mg/l				
Bisphenol A, 2-EO dimethacrylate 41637-38-1	aqua (freshwater)						
Bisphenol A, 2-EO dimethacrylate 41637-38-1	aqua (marine water)						
Bisphenol A, 2-EO dimethacrylate 41637-38-1	sewage treatment plant (STP)						
Bisphenol A, 2-EO dimethacrylate 41637-38-1	sediment (freshwater)						
Bisphenol A, 2-EO dimethacrylate 41637-38-1	sediment (marine water)						
Bisphenol A, 2-EO dimethacrylate 41637-38-1	Air						
Bisphenol A, 2-EO dimethacrylate 41637-38-1	soil						
Bisphenol A, 2-EO dimethacrylate 41637-38-1	Predator						
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	aqua (freshwater)		0,1 mg/l				
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	aqua (marine water)		0,01 mg/l				
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	aqua (intermittent releases)		1 mg/l				
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	soil				7,1 mg/kg		
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	sewage treatment plant (STP)		10 mg/l				
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	sediment (freshwater)				35,8 mg/kg		
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	sediment (marine water)				3,58 mg/kg		
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	soil				0,0049 mg/kg		
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	sediment (freshwater)				0,015 mg/kg		
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	sediment (marine water)				0,0029 mg/kg		
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate	aqua (freshwater)		0,00147 mg/l				

15625-89-5							
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	aqua (marine water)		0,000147 mg/l				
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	sewage treatment plant (STP)		6,25 mg/l				
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	oral				10 mg/kg		
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	aqua (intermittent releases)		0,0147 mg/l				
Tert-butyl perbenzoate 614-45-9	aqua (freshwater)		0,0088 mg/l				
Tert-butyl perbenzoate 614-45-9	aqua (marine water)		0,00088 mg/l				
Tert-butyl perbenzoate 614-45-9	aqua (intermittent releases)		0,008 mg/l				
Tert-butyl perbenzoate 614-45-9	sewage treatment plant (STP)		0,6 mg/l				
Tert-butyl perbenzoate 614-45-9	sediment (freshwater)				0,24 mg/kg		
Tert-butyl perbenzoate 614-45-9	sediment (marine water)				0,024 mg/kg		
Tert-butyl perbenzoate 614-45-9	soil				0,043 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Bisphenol A, 2-EO dimethacrylate 41637-38-1	Workers	inhalation	Long term exposure - systemic effects		3,52 mg/m ³	
Bisphenol A, 2-EO dimethacrylate 41637-38-1	Workers	dermal	Long term exposure - systemic effects		2 mg/kg	
Bisphenol A, 2-EO dimethacrylate 41637-38-1	General population	inhalation	Long term exposure - systemic effects		0,87 mg/m ³	
Bisphenol A, 2-EO dimethacrylate 41637-38-1	General population	dermal	Long term exposure - systemic effects		1 mg/kg	
Bisphenol A, 2-EO dimethacrylate 41637-38-1	General population	oral	Long term exposure - systemic effects		0,5 mg/kg	
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	Workers	inhalation	Long term exposure - systemic effects		1,17 mg/m ³	
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	Workers	dermal	Long term exposure - systemic effects		33 mg/kg	
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	General population	inhalation	Long term exposure - systemic effects		0,29 mg/m ³	
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	General population	dermal	Long term exposure - systemic effects		16,67 mg/kg	
4,4'-isopropylidenediphenol-, polymer with (chloromethyl)oxirane, acrylate 55818-57-0	General population	oral	Long term exposure - systemic effects		0,17 mg/kg	
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	Workers	dermal	Long term exposure - systemic effects		83 mg/kg	
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	Workers	inhalation	Long term exposure - systemic effects		3,5 mg/m ³	
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	General population	dermal	Long term exposure - systemic effects		42 mg/kg	
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	General population	inhalation	Long term exposure - systemic effects		0,87 mg/m ³	
2-Ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	General population	oral	Long term exposure - systemic effects		0,5 mg/kg	
Tert-butyl perbenzoate 614-45-9	Workers	Inhalation	Long term exposure - systemic effects		4 mg/m ³	
Tert-butyl perbenzoate 614-45-9	Workers	dermal	Long term exposure - systemic effects		6,25 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

apron

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Wash off any dirt that gets onto the skin with lots of soap and water, skin care.

Use solvent-resistant skin protection cream.

Do not breathe dust and vapors.

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.

Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	paste liquid Off white
Odor	characteristic
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	Polymerization may occur at elevated temperature.
Flash point	93 °C (199.4 °F)
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Relative vapour density:	No data available / Not applicable
Density (20 °C (68 °F))	1,65 g/cm ³
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Negligible
Solubility (qualitative) (20 °C (68 °F); Solvent: ketones)	Partially miscible
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

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

Reacts with oxidants, acids and lyes

Reaction with reducing agents.

Heavy metals.

Polymerization may occur at elevated temperature or in the presence of incompatible materials.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

Danger of decomposition if exposed to heat.

Do not heat mixed adhesive unless you plan to use immediately.

Failure to observe these precautions may result in excessive heat build-up causing an exotherm.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

Hydrocarbons

Irritating vapors.

At higher temperature carbon oxides and nitrogen oxides may be generated.

Oxides of silicon.

May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.

SECTION 11: Toxicological information**General toxicological information:**

Prolonged or repeated contact may cause skin irritation.

Prolonged or repeated contact may cause eye irritation.

11.1. Information on toxicological effects**Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Epoxy Acrylate Oligomer 55818-57-0	LD0	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Epoxy Acrylate Oligomer 55818-57-0	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Trimethylolpropane triacrylate 15625-89-5	LD50	> 5.000 mg/kg	rat	not specified
Tert-butyl perbenzoate 614-45-9	LD50	4.838 mg/kg	rat	not specified

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Epoxy Acrylate Oligomer 55818-57-0	LD0	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Epoxy Acrylate Oligomer 55818-57-0	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Trimethylolpropane triacrylate 15625-89-5	LD50	7.050 mg/kg	rabbit	not specified
Tert-butyl perbenzoate 614-45-9	LD50	3.817 mg/kg	rat	not specified

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Tert-butyl perbenzoate 614-45-9	LC50	> 1,01 mg/l	dust/mist		not specified	not specified

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	not irritating		In vitro	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Epoxy Acrylate Oligomer 55818-57-0	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	not irritating		In vitro	OECD Guideline 437 (BCOP)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Epoxy Acrylate Oligomer 55818-57-0	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	sensitising	Freund's complete adjuvant test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Epoxy Acrylate Oligomer 55818-57-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Epoxy Acrylate Oligomer 55818-57-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	positive	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Carcinogenicity

No data available.

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	NOAEL P 250 mg/kg NOAEL F1 1.000 mg/kg		oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	NOAEL 1.000 mg/kg	oral: gavage		rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	NOAEL 300 mg/kg	oral: gavage	4 weeks daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	LL50		96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Trimethylolpropane triacrylate 15625-89-5	LC50	1,47 mg/l	96 h	Leuciscus idus	EU Method C.1 (Acute Toxicity for Fish)
Tert-butyl perbenzoate 614-45-9	LC50	1,6 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	EC50	2,36 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	EL50		48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Epoxy Acrylate Oligomer 55818-57-0	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Trimethylolpropane triacrylate 15625-89-5	EC50	19,9 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Tert-butyl perbenzoate 614-45-9	EC50	11 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Tert-butyl perbenzoate 614-45-9	NOEC	0,44 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	EC50	1,6 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dicyclopentylidimethylene diacrylate 42594-17-2	EC10	0,64 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	EL50		72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	EL10		72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Epoxy Acrylate Oligomer 55818-57-0	NOEC	1,2 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Epoxy Acrylate Oligomer 55818-57-0	EC50	105 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Trimethylolpropane triacrylate 15625-89-5	EC50	4,86 mg/l	96 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Trimethylolpropane triacrylate 15625-89-5	EC10	1,9 mg/l	96 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Tert-butyl perbenzoate 614-45-9	NOEC	0,72 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tert-butyl perbenzoate 614-45-9	EC50	0,8 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	EC50		3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Trimethylolpropane triacrylate 15625-89-5	EC20	625 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
Tert-butyl perbenzoate 614-45-9	EC10	6 mg/l	30 min	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The product is not biodegradable.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	not readily biodegradable.	aerobic	28 %	28 day	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	not readily biodegradable.	aerobic	24 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Epoxy Acrylate Oligomer 55818-57-0		aerobic	42 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Trimethylolpropane triacrylate 15625-89-5	readily biodegradable	aerobic	82 - 90 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Trimethylolpropane triacrylate 15625-89-5	inherently biodegradable	aerobic	> 70 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Tert-butyl perbenzoate 614-45-9	readily biodegradable	aerobic	70 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential

No data available.

No substance data available.

12.4. Mobility in soil

Cured adhesives are immobile.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Dicyclopentylidimethylene diacrylate 42594-17-2	4,6		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	5,3 - 5,62		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Epoxy Acrylate Oligomer 55818-57-0	1,6 - 3,8	23 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Trimethylolpropane triacrylate 15625-89-5	0,67	23 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Tert-butyl perbenzoate 614-45-9	3,00	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Epoxy Acrylate Oligomer 55818-57-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Trimethylolpropane triacrylate 15625-89-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Tert-butyl perbenzoate 614-45-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product disposal:

Collection and delivery to recycling enterprise or other registered elimination institution.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information**14.1. UN number**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content < 3 %
(2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

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

H242 Heating may cause a fire.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

Further information:

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

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.