

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

Page 1 of 7

SDS No.: 178228

V001.0

Revision: 19.05.2017 printing date: 09.08.2017 Replaces version from: -

LOCTITE AA 319 MESH known as LOCTITE RVM MESH KIT 0.5ML EN

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

1.1. Product identifier

LOCTITE AA 319 MESH known as LOCTITE RVM MESH KIT 0.5ML EN

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

Intended use: Special product

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Adhesives

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):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements

Label elements (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.3. Other hazards

None if used properly.

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

E

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

This is an article, according to EU Directives it does not require a Safety Data Sheet

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

Contains no dangerous substances exceeding the limits of the EU-Regulation

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Not applicable

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Not applicable

Eye contact:

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

Not applicable

Ingestion:

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

Not applicable

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

No particular measures required.

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:

None

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

None

5.3. Advice for firefighters

None

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See advice in section 8

6.2. Environmental precautions

None known

MSDS-No.: 178228 V001.0

EN

6.3. Methods and material for containment and cleaning up

Not applicable

SECTION 7: Handling and storage

7.1. Precautions for safe handling

When using do not eat, drink or smoke.

Wash hands before breaks and immediately after handling the product.

Hygiene measures:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container.

7.3. Specific end use(s)

Special product

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

None

Occupational Exposure Limits

Valid for

Ireland

None

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

Not needed.

Hand protection:

Not needed.

Eye protection:

Not needed.

Protective eye equipment should conform to EN166.

Skin protection:

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

MSDS-No.: 178228 V001.0

EN

Page 4 of 7

Advices to personal protection equipment:

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 Mesh

solid

Odour threshold No data available / Not applicable

pH Not applicable

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable

Initial boiling point Not applicable Flash point Not applicable

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 Not determined

Bulk density

No data available / Not applicable
Solubility

No data available / Not applicable

Solubility (qualitative) Insoluble

(Solvent: Water)

Solubility (qualitative) Insoluble

(Solvent: Acetone)

Partition coefficient: n-octanol/water
Auto-ignition temperature
Decomposition temperature
Viscosity
Viscosity
Viscosity
Viscosity
Viscosity
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

None if used properly.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

No decomposition if used according to specifications.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

None known.

LOCTITE AA 319 MESH known as LOCTITE RVM MESH KIT $0.5 \mathrm{ML}$

Page 5 of 7

V001.0

MSDS-No.: 178228

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Skin irritation:

not irritating

Eye irritation:

not irritating

SECTION 12: Ecological information

General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:

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

12.2. Persistence and degradability

Persistence and Biodegradability:

No data available.

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:

No data available.

Bioaccumulative potential:

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

MSDS-No.: 178228 V001.0

EN

Page 6 of 7

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:

Dispose of in accordance with local and national regulations.

Waste code

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09.

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 $<\!3~\%$

VOC content (2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

LOCTITE AA 319 MESH known as LOCTITE RVM MESH KIT $0.5\mathrm{ML}$

Page 7 of 7

V001.0 E

MSDS-No.: 178228

SECTION 16: Other information

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.



0.5ML EN

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

LOCTITE AA 319 MESH known as LOCTITE RVM MESH KIT

Page 1 of 21

SDS No.: 153501

V001.0

Revision: 19.05.2017

printing date: 09.08.2017

Replaces version from: 29.10.2015

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

1.1. Product identifier

LOCTITE AA 319 MESH known as LOCTITE RVM MESH KIT 0.5ML EN

Hydroxypropyl methacrylate

Acrylic acid

2-Hydroxyethyl methacrylate

2,2'-Ethylenedioxydiethyl dimethacrylate

Acetic acid, 2-phenylhydrazide

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

Intended use:

Anaerobic Adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

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):

Serious eye damage Category 1

H318 Causes serious eye damage.

Skin sensitizer Category 1

H317 May cause an allergic skin reaction.

Specific target organ toxicity - single exposure Category 3

H335 May cause respiratory irritation.

Target organ: respiratory tract irritation

Chronic hazards to the aquatic environment Category 3

H412 Harmful to aquatic life with long lasting effects.

Category 2 Skin irritation

H315 Causes skin irritation.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word: Danger

Hazard statement: H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

***For consumer use only: P101 If medical advice is needed, have product container or **Precautionary statement:**

label at hand. P102 Keep out of reach of children. P501 Dispose of waste and residues in

accordance with local authority requirements***

Precautionary statement: P261 Avoid breathing vapours.

P273 Avoid release to the environment. Prevention

P280 Wear protective gloves/eye protection.

Precautionary statement: P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove Response

contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

Non corrosive to skin in accordance with the in vitro test method, B40 skin corrosion - Human skin model assay, equivalent to test method OECD 431 or based on analogy to similar products tested.

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EN

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Hydroxypropyl methacrylate 27813-02-1	248-666-3 01-2119490226-37	20- 40 %	Skin Sens. 1 H317 Eye Irrit. 2 H319
Acrylic acid 79-10-7	201-177-9 01-2119452449-31	1-< 5%	Flam. Liq. 3 H226 Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Skin Corr. 1A H314 Acute Tox. 4; Inhalation H332 STOT SE 3 H335 Aquatic Acute 1 H400 Aquatic Chronic 2 H411
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	203-652-6 01-2119969287-21	1-< 5 %	Skin Sens. 1B H317
Methacrylic acid 79-41-4	201-204-4 01-2119463884-26	1-< 3 %	Acute Tox. 4; Oral H302 Acute Tox. 3; Dermal H311 Acute Tox. 4; Inhalation H332 Skin Corr. 1A H314
Cumene hydroperoxide 80-15-9	201-254-7	0,1-< 1 %	Acute Tox. 4; Dermal H312 STOT RE 2 H373 Acute Tox. 4; Oral H302 Org. Perox. E H242 Acute Tox. 3; Inhalation H331 Aquatic Chronic 2 H411 Skin Corr. 1B H314
Acetic acid, 2-phenylhydrazide 114-83-0	204-055-3	0,1-< 1 %	Acute Tox. 3; Oral H301 Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 STOT SE 3; Inhalation H335 Carc. 2 H351
2-Hydroxyethyl methacrylate 868-77-9	212-782-2 01-2119490169-29	0,1-< 1 %	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319
Benzochinon, p- 106-51-4	203-405-2 01-2119933861-35	0,01-< 0,1 %	Acute Tox. 3; Inhalation H331 Acute Tox. 3; Oral H301

MSDS-No.: 153501

ΕN

Eye Irrit. 2
H319
STOT SE 3
H335
Skin Irrit. 2
H315
Aquatic Acute 1
H400
M factor (Acute Aquat Tox): 10 M factor
(Chron Aquat Tox): 10

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:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.

Seek medical advice.

Eve contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.

Seek medical advice.

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

SKIN: Rash, Urticaria.

SKIN: Redness, inflammation.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

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:

Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

None known

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 (NOx) can be released.

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.

01.0

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

Use only in well-ventilated areas.

Avoid skin and eye contact.

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

See advice in section 8

Hygiene measures:

Good industrial hygiene practices should be observed.

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

Store in original containers at 8-21 °C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.

7.3. Specific end use(s)

Anaerobic Adhesive

EN

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Methacrylic acid 79-41-4 [METHACRYLIC ACID]	40	143	Short Term Exposure Limit (STEL):		EH40 WEL
Methacrylic acid 79-41-4 [METHACRYLIC ACID]	20	72	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
Acrylic acid 79-10-7 [ACRYLIC ACID]	2	6	Time Weighted Average (TWA):		IR_OEL
Methacrylic acid 79-41-4 [METHACRYLIC ACID]	20	70	Time Weighted Average (TWA):		IR_OEL
Methacrylic acid 79-41-4 [METHACRYLIC ACID]	40	140	Short Term Exposure Limit (STEL):		IR_OEL
p-Benzoquinone 106-51-4 [QUINONE]	0,1	0,4	Time Weighted Average (TWA):		IR_OEL

MSDS-No.: 153501

V001.0 EN

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental		Value				Remarks
	Compartment	period	mg/l	ppm	mg/kg	others	
Methacrylic acid, monoester with propane-	aqua		0,904 mg/l	ppm	IIIg/Kg	others	
1,2-diol	(freshwater)		3,5 5 1 22.8				
27813-02-1			0.004 7				
Methacrylic acid, monoester with propane- 1,2-diol	aqua (marine water)		0,904 mg/l				
27813-02-1	water)						
Methacrylic acid, monoester with propane-	sewage		10 mg/l				
1,2-diol 27813-02-1	treatment plant						
Methacrylic acid, monoester with propane-	(STP) aqua		0,972 mg/l				
1,2-diol	(intermittent		0,772 mg/1				
27813-02-1	releases)						
Methacrylic acid, monoester with propane- 1,2-diol	sediment (freshwater)				6,28 mg/kg		
27813-02-1	(Heshwater)						
Methacrylic acid, monoester with propane-	sediment				6,28 mg/kg		
1,2-diol	(marine water)						
27813-02-1 Methacrylic acid, monoester with propane-	soil				0,727		
1,2-diol	SOII				mg/kg		
27813-02-1					0 0		
Acrylic acid	aqua		0,003 mg/l				
79-10-7 Acrylic acid	(freshwater) aqua (marine		0,0003				
79-10-7	water)		mg/l				
Acrylic acid	aqua		0,0013				
79-10-7	(intermittent		mg/l				
Acrylic acid	releases) sewage		0,9 mg/l				
79-10-7	treatment plant		0,7 mg/1				
	(STP)						
Acrylic acid 79-10-7	sediment				0,0236		
Acrylic acid	(freshwater) sediment				mg/kg 0,00236		
79-10-7	(marine water)				mg/kg		
Acrylic acid	soil				1 mg/kg		
79-10-7 Acrylic acid	oral				0,0023		
79-10-7	orar				mg/kg		
Acrylic acid	Predator				0,03 g/kg		
79-10-7			0.164 //				
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	aqua (freshwater)		0,164 mg/l				
2,2'-Ethylenedioxydiethyl dimethacrylate	aqua (marine		0,0164				
109-16-0	water)		mg/l				
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sewage treatment plant		10 mg/l				
107-10-0	(STP)						
2,2'-Ethylenedioxydiethyl dimethacrylate	aqua		0,164 mg/l				
109-16-0	(intermittent						
2,2'-Ethylenedioxydiethyl dimethacrylate	releases) sediment				1,85 mg/kg		
109-16-0	(freshwater)				1,03 mg/kg		
2,2'-Ethylenedioxydiethyl dimethacrylate	sediment				0,185		
109-16-0 2,2'-Ethylenedioxydiethyl dimethacrylate	(marine water)				mg/kg 0,274		
109-16-0	soil				mg/kg		
2,2'-Ethylenedioxydiethyl dimethacrylate	Air						
109-16-0	D. L.						
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Predator						
Methacrylic acid	aqua		0,82 mg/l				
79-41-4	(freshwater)						
Methacrylic acid	aqua (marine		0,82 mg/l				
79-41-4 Methacrylic acid	water) sewage		10 mg/l			+	
79-41-4	treatment plant		10 111g/1				
	F	1		1	1		· ·

EN

l	(STP)	1	1 1	
Methacrylic acid 79-41-4	aqua (intermittent releases)	0,82 mg/l		
Methacrylic acid 79-41-4	soil		1,2 mg/kg	
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (freshwater)	0,0031 mg/l		
.alpha.,alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (marine water)	0,00031 mg/l		
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (intermittent releases)	0,031 mg/l		
.alpha.,alphaDimethylbenzyl hydroperoxide 80-15-9	Sewage treatment plant	0,35 mg/l		
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	sediment (freshwater)		0,023 mg/kg	
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	sediment (marine water)		0,0023 mg/kg	
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	soil		0,0029 mg/kg	
2-Hydroxyethyl methacrylate 868-77-9	aqua (freshwater)	0,482 mg/l		
2-Hydroxyethyl methacrylate 868-77-9	aqua (marine water)	0,482 mg/l		
2-Hydroxyethyl methacrylate 868-77-9	sewage treatment plant (STP)	10 mg/l		
2-Hydroxyethyl methacrylate 868-77-9	aqua (intermittent releases)	1 mg/l		
2-Hydroxyethyl methacrylate 868-77-9	sediment (freshwater)		3,79 mg/kg	
2-Hydroxyethyl methacrylate 868-77-9	sediment (marine water)		3,79 mg/kg	
2-Hydroxyethyl methacrylate 868-77-9	soil		0,476 mg/kg	
2-Hydroxyethyl methacrylate 868-77-9	Predator			

Page 9 of 21

MSDS-No.: 153501 V001.0

EN

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Methacrylic acid, monoester with propane-	Workers	dermal	Long term		4,2 mg/kg	
1,2-diol 27813-02-1			exposure - systemic effects			
Methacrylic acid, monoester with propane-	Workers	Inhalation	Long term		14,7 mg/m3	
1,2-diol			exposure -			
27813-02-1	G 1	1 1	systemic effects		2.5 //	
Methacrylic acid, monoester with propane- 1,2-diol	General population	dermal	Long term exposure -		2,5 mg/kg	
27813-02-1	population		systemic effects			
Methacrylic acid, monoester with propane-	General	Inhalation	Long term		8,8 mg/m3	
1,2-diol 27813-02-1	population		exposure - systemic effects			
Methacrylic acid, monoester with propane-	General	oral	Long term		2,5 mg/kg	
1,2-diol	population	0141	exposure -		2,5 1118/118	
27813-02-1			systemic effects			
Acrylic acid 79-10-7	Workers	inhalation	Long term		30 mg/m3	
/9-10-/			exposure - local effects			
Acrylic acid	Workers	inhalation	Acute/short term		30 mg/m3	
79-10-7			exposure - local			
Aprilia said	Workers	darma1	effects Acute/short term	1	1 mg/am2	
Acrylic acid 79-10-7	workers	dermal	Acute/short term exposure - local		1 mg/cm2	
77 10 7			effects			
Acrylic acid	General	dermal	Acute/short term		1 mg/cm2	
79-10-7	population		exposure - local			
Acrylic acid	General	inhalation	effects Acute/short term		3,6 mg/m3	
79-10-7	population	Illiaiation	exposure - local		5,0 mg/m5	
			effects			
Acrylic acid	General	inhalation	Long term		3,6 mg/m3	
79-10-7	population		exposure - local effects			
2,2'-Ethylenedioxydiethyl dimethacrylate	Workers	inhalation	Long term		48,5 mg/m3	
109-16-0			exposure -		8	
			systemic effects			
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Workers	dermal	Long term exposure -		13,9 mg/kg	
109-10-0			systemic effects			
2,2'-Ethylenedioxydiethyl dimethacrylate	General	inhalation	Long term		14,5 mg/m3	
109-16-0	population		exposure -			
2,2'-Ethylenedioxydiethyl dimethacrylate	General	dermal	systemic effects Long term		8,33 mg/kg	
109-16-0	population	dermai	exposure -		6,55 Hig/Kg	
			systemic effects			
2,2'-Ethylenedioxydiethyl dimethacrylate	General	oral	Long term		8,33 mg/kg	
109-16-0	population		exposure - systemic effects			
Methacrylic acid	Workers	Inhalation	Long term		88 mg/m3	
79-41-4			exposure - local			
			effects			
Methacrylic acid	Workers	Inhalation	Long term exposure -		29,6 mg/m3	
79-41-4			exposure - systemic effects			
Methacrylic acid	Workers	dermal	Long term		4,25 mg/kg	
79-41-4			exposure -			
Mathagralia agid	Ganara ¹	Inhalat!	systemic effects		6.55 ma/m2	
Methacrylic acid 79-41-4	General population	Inhalation	Long term exposure - local		6,55 mg/m3	
			effects	<u> </u>		
Methacrylic acid	General	Inhalation	Long term		6,3 mg/m3	
79-41-4	population		exposure -			
Methacrylic acid	General	dermal	systemic effects Long term	1	2,55 mg/kg	
79-41-4	population	acrinal	exposure -		2,00 mg/kg	
			systemic effects			
.alpha.,.alphaDimethylbenzyl	Workers	inhalation	Long term		6 mg/m3	
hydroperoxide			exposure -			

EN

80-15-9			systemic effects		
2-Hydroxyethyl methacrylate 868-77-9	Workers	dermal	Long term exposure - systemic effects	1,3 mg/kg	
2-Hydroxyethyl methacrylate 868-77-9	Workers	Inhalation	Long term exposure - systemic effects	4,9 mg/m3	
2-Hydroxyethyl methacrylate 868-77-9	General population	dermal	Long term exposure - systemic effects	0,83 mg/kg	
2-Hydroxyethyl methacrylate 868-77-9	General population	Inhalation	Long term exposure - systemic effects	2,9 mg/m3	
2-Hydroxyethyl methacrylate 868-77-9	General population	oral	Long term exposure - systemic effects	0,83 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.

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

Advices to personal protection equipment:

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.

MSDS-No.: 153501

EN

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance liquid

liquid Amber

Odor Sharp

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 No data available / Not applicable

Flash point > 100 °C (> 212 °F); Tagliabue closed cup Evaporation rate No data available / Not applicable Flammability No data available / Not applicable Explosive limits No data available / Not applicable

Vapour pressure < 4 mbar

(20 °C (68 °F))

Relative vapour density:

No data available / Not applicable

Density 1,05 g/cm³

()

Bulk density

No data available / Not applicable
Solubility

No data available / Not applicable

Solubility (qualitative) Insoluble

(23 °C (73.4 °F); Solvent: Water)

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

No data available / Not applicable
No data available / Not applicable
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

Reaction with strong acids. Reacts with strong oxidants. Reaction with strong bases

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

Oxides of carbon.

MSDS-No.: 153501

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

STOT-single exposure:

May cause respiratory irritation.

Oral toxicity:

May cause irritation to the digestive tract.

Skin irritation:

Causes skin irritation.

Non corrosive to skin in accordance with the in vitro test method, B40 skin corrosion - Human skin model assay, equivalent to test method OECD 431 or based on analogy to similar products tested.

Eye irritation:

Causes serious eye damage.

Sensitizing:

May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
Hydroxypropyl methacrylate 27813-02-1	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Acrylic acid 79-10-7	LD50	1.500 mg/kg	oral		rat	BASF Test
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LD50	10.837 mg/kg	oral		rat	not specified
Methacrylic acid 79-41-4	LD50	1.320 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral		rat	not specified
2-Hydroxyethyl methacrylate 868-77-9	LD50	> 5.000 mg/kg	oral		rat	not specified
Benzochinon, p- 106-51-4	LD50	130 mg/kg	oral		rat	not specified

Acute inhalative toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
Acrylic acid	LC50	> 5,1 mg/l	Vapor.	4 h	rat	OECD Guideline 403 (Acute
79-10-7						Inhalation Toxicity)
Acrylic acid	Acute	11 mg/l	vapour			Expert judgement
79-10-7	toxicity					
	estimate					
	(ATE)					
Methacrylic acid	LC50	> 3,6 mg/l	aerosol	4 h	rat	OECD Guideline 403 (Acute
79-41-4						Inhalation Toxicity)

EN

Acute dermal toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
Hydroxypropyl	LD50	> 5.000 mg/kg	dermal		rabbit	not specified
methacrylate						
27813-02-1						
Acrylic acid	Acute	1.100 mg/kg	dermal			Expert judgement
79-10-7	toxicity					
	estimate					
	(ATE)					
Acrylic acid	LD50	> 2.000 mg/kg			rabbit	OECD Guideline 402 (Acute
79-10-7						Dermal Toxicity)
2,2'-Ethylenedioxydiethyl	LD50	> 2.000 mg/kg	dermal		mouse	not specified
dimethacrylate						
109-16-0						
Methacrylic acid	Acute	500 mg/kg	dermal			Expert judgement
79-41-4	toxicity					
	estimate					
36.1 11 11	(ATE)	500 1 000			111	D 15 15 0
Methacrylic acid	LD50	500 - 1.000			rabbit	Dermal Toxicity Screening
16 12 1	LD50	mg/kg				:£:4
Cumene hydroperoxide	LD30	1.200 - 1.520	dermal			not specified
80-15-9	LD50	mg/kg > 5.000 mg/kg	dermal		rabbit	not anguified
2-Hydroxyethyl	LD30	> 5.000 Hig/kg	dermai		rabbit	not specified
methacrylate 868-77-9						
Benzochinon, p-	LD50	> 2.000 mg/kg	dermal	ĺ	rat	not specified
106-51-4	LDSU	> 2.000 Hig/kg	uermai		Tat	not specified
100-31-4	ļ	1	I	I		l l

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Hydroxypropyl methacrylate 27813-02-1	not irritating	24 h	rabbit	Draize Test
Acrylic acid 79-10-7	highly corrosive	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	not irritating	24 h	rabbit	Draize Test
Methacrylic acid 79-41-4	Category 1A (corrosive)	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Acrylic acid 79-10-7	corrosive	21 d	rabbit	BASF Test
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methacrylic acid 79-41-4	Category I		rabbit	Draize Test
2-Hydroxyethyl methacrylate 868-77-9	irritating		rabbit	Draize Test

EN

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Acrylic acid 79-10-7	not sensitising	Skin painting test	guinea pig	not specified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sensitising	Mouse local lymphnod e assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Methacrylic acid 79-41-4	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Hydroxypropyl methacrylate 27813-02-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hydroxypropyl methacrylate 27813-02-1	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Acrylic acid 79-10-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Methacrylic acid 79-41-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Methacrylic acid 79-41-4	negative	inhalation		mouse	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	negative	dermal		mouse	not specified
2-Hydroxyethyl methacrylate 868-77-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)
2-Hydroxyethyl methacrylate 868-77-9	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

EN

Carcinogenicity:

Hazardous components	Result	Species	Sex	Exposure	Route of	Method
CAS-No.				timeFrequenc	application	
				y of treatment		
Hydroxypropyl methacrylate 27813-02-1		rat	male	2 years (102 weeks) 6 hours/day, 5 days/week	inhalation	OECD Guideline 451 (Carcinogenicity Studies)
2-Hydroxyethyl methacrylate 868-77-9		rat	female	102 weeks 6 hours/day, 5 days/week	inhalation	OECD Guideline 451 (Carcinogenicity Studies)

Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
Hydroxypropyl methacrylate 27813-02-1	NOAEL P = 400 mg/kg	two- generation study oral: gavage	until one day before sacrifice	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOAEL P = 1.000 mg/kg NOAEL F1 = 1.000 mg/kg	oral: gavage		rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
2-Hydroxyethyl methacrylate 868-77-9	NOAEL P = >= 1.000 mg/kg NOAEL F1 = >= 1.000 mg/kg	screening oral: gavage		rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Hydroxypropyl methacrylate 27813-02-1	NOAEL=300 mg/kg	oral: gavage		rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOAEL=1.000 mg/kg	oral: gavage	daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	not specified
2-Hydroxyethyl methacrylate 868-77-9	NOAEL=100 mg/kg	oral: gavage	once daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

SECTION 12: Ecological information

General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:

Harmful to aquatic life with long lasting effects.

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

EN

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Hydroxypropyl methacrylate	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	DIN 38412-15
27813-02-1 Hydroxypropyl methacrylate 27813-02-1	EC50	> 143 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation
Hydroxypropyl methacrylate 27813-02-1	EC50	> 97,2 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	Test) OECD Guideline 201 (Alga, Growth
	NOEC	> 97,2 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	Inhibition Test) OECD Guideline 201 (Alga, Growth
Hydroxypropyl methacrylate 27813-02-1	EC10	1.140 mg/l	Bacteria	16 h		Inhibition Test) not specified
Hydroxypropyl methacrylate 27813-02-1	NOEC	45,2 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Acrylic acid 79-10-7	LC50	27 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
Acrylic acid 79-10-7	EC10	0,03 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	0,13 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Acrylic acid 79-10-7	EC10	41 mg/l	Bacteria	16 h	suospicatus	not specified
Acrylic acid 79-10-7	NOEC	19 mg/l	chronic Daphnia	21 d	Daphnia magna	EPA OTS 797.1330 (Daphnid Chronic Toxicity Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LC50	16,4 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	EC50	> 100 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
107-10-0	NOEC	18,6 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOEC	32 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Methacrylic acid 79-41-4	LC50	85 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity
Methacrylic acid 79-41-4	EC50	> 130 mg/l	Daphnia	48 h	Daphnia magna	Test) EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Methacrylic acid 79-41-4	NOEC	8,2 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella	OECD Guideline 201 (Alga, Growth
	EC50	45 mg/l	Algae	72 h	subcapitata) Selenastrum capricornutum (new name: Pseudokirchnerella	
Methacrylic acid 79-41-4	EC10	100 mg/l	Bacteria	17 h	subcapitata)	Inhibition Test) not specified
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation
Cumene hydroperoxide	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	Test) OECD Guideline

ĺ	80-15-9						201 (Alga, Growth
							Inhibition Test)
	Cumene hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		not specified
	2-Hydroxyethyl methacrylate	LC50	> 100 mg/l	Fish	96 h	Oryzias latipes	OECD Guideline
	868-77-9						203 (Fish, Acute
							Toxicity Test)
	2-Hydroxyethyl methacrylate	EC50	380 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
	868-77-9			-			202 (Daphnia sp.
							Acute
							Immobilisation
							Test)
	2-Hydroxyethyl methacrylate	EC50	836 mg/l	Algae	72 h	Selenastrum capricornutum	OECD Guideline
	868-77-9					(new name: Pseudokirchnerella	201 (Alga, Growth
						subcapitata)	Inhibition Test)
		NOEC	400 mg/l	Algae	72 h	Selenastrum capricornutum	OECD Guideline
						(new name: Pseudokirchnerella	201 (Alga, Growth
						subcapitata)	Inhibition Test)
	2-Hydroxyethyl methacrylate 868-77-9	EC0	> 3.000 mg/l	Bacteria	16 h	Pseudomonas fluorescens	other guideline:
	2-Hydroxyethyl methacrylate	NOEC	24,1 mg/l	chronic	21 d	Daphnia magna	OECD 211
	868-77-9		· ·	Daphnia			(Daphnia magna,
							Reproduction Test)
	Benzochinon, p-	LC50	< 1 mg/l	Fish			OECD Guideline
	106-51-4						203 (Fish, Acute
							Toxicity Test)
	Benzochinon, p-	EC50	< 1 mg/l	Daphnia		Daphnia magna	OECD Guideline
	106-51-4						202 (Daphnia sp.
							Acute
							Immobilisation
							Test)
	Benzochinon, p-	EC50	6 mg/l	Algae		Scenedesmus sp.	OECD Guideline
	106-51-4						201 (Alga, Growth
							Inhibition Test)
	Benzochinon, p- 106-51-4	EC0	< 1 mg/l	Bacteria	30 min		not specified

12.2. Persistence and degradability

Persistence and Biodegradability: The product is not biodegradable.

CAS-No.	application		

Page 18 of 21

MSDS-No.: 153501 V001.0

ΕN

Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Acrylic acid 79-10-7	readily biodegradable	aerobic	81 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
	inherently biodegradable	aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	readily biodegradable	aerobic	85 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Methacrylic acid 79-41-4	inherently biodegradable	aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
	readily biodegradable	aerobic	86 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	92 - 100 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Benzochinon, p- 106-51-4		aerobic	23 - 61 %	EU Method C.4-B (Determination of the "Ready" BiodegradabilityModified OECD Screening Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:

Cured adhesives are immobile.

Bioaccumulative potential: No data available.

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Hydroxypropyl methacrylate 27813-02-1	0,97				20 °C	not specified
Acrylic acid 79-10-7		3,16				not specified
Acrylic acid 79-10-7	0,46				25 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	2,3					OECD Guideline 117 (Partition Coefficient (noctanol / water), HPLC Method)
Methacrylic acid 79-41-4	0,93				22 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
Cumene hydroperoxide 80-15-9		9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene hydroperoxide 80-15-9	2,16					not specified
Acetic acid, 2- phenylhydrazide 114-83-0	0,74					not specified
2-Hydroxyethyl methacrylate 868-77-9	0,42				25 °C	OECD Guideline 107 (Partition Coefficient (noctanol / water), Shake Flask Method)
Benzochinon, p- 106-51-4	0,2	_		-		not specified

MSDS-No.: 153501

Hazardous components	PBT/vPvB
CAS-No.	
Hydroxypropyl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
27813-02-1	Bioaccumulative (vPvB) criteria.
Acrylic acid	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
79-10-7	Bioaccumulative (vPvB) criteria.
2,2'-Ethylenedioxydiethyl dimethacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
109-16-0	Bioaccumulative (vPvB) criteria.
Methacrylic acid	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
79-41-4	Bioaccumulative (vPvB) criteria.
Cumene hydroperoxide	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
80-15-9	Bioaccumulative (vPvB) criteria.
2-Hydroxyethyl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
868-77-9	Bioaccumulative (vPvB) criteria.
Benzochinon, p-	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
106-51-4	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.

Disposal must be made according to official regulations.

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 (2010/75/EC) < 3 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

MSDS-No.: 153501

EN

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:

- H226 Flammable liquid and vapor.
- H242 Heating may cause a fire.
- H301 Toxic if swallowed.
- 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.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

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.