



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

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LOCTITE 620

SDS No. : 153472
V011.0

Revision: 11.12.2017

printing date: 26.06.2019

Replaces version from: 11.05.2017

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

1.1. Product identifier

LOCTITE 620

Contains:

N,N-(m-phenylene)dimalaideimide
Hydroxypropyl methacrylate
Cumene hydroperoxide
Maleic acid
Acetic acid, 2-phenylhydrazide

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

Intended use:
Adhesive

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 irritation	Category 2
H315 Causes skin irritation.	
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.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word:

Warning

Hazard statement:

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement:

"***" ***For consumer use only: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P501 Dispose of waste and residues in accordance with local authority requirements***

**Precautionary statement:
Prevention**

P261 Avoid breathing vapours.
P280 Wear protective gloves.
P273 Avoid release to the environment.

**Precautionary statement:
Response**

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

This product contains a substance that is classified as Acute Toxicity Category 2, Inhalation, in powder form. Experimental data show that this substance, as an ingredient in this mixture, is not biologically available according to CLP Art. 12 b. Non corrosive to eyes according to test method OECD 438 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

General chemical description:

Anaerobic Sealant

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	01-2119980659-17	50- 100 %	Aquatic Chronic 4 H413
N,N-(m-phenylene)dimalleimide 3006-93-7	221-112-8	10- 20 %	Acute Tox. 2; Inhalation H330 Skin Irrit. 2 H315 Eye Dam. 1 H318 Skin Sens. 1 H317 Aquatic Chronic 3 H412
Hydroxypropyl methacrylate 27813-02-1	248-666-3 01-2119490226-37	1- < 3 %	Skin Sens. 1 H317 Eye Irrit. 2 H319
Cumene hydroperoxide 80-15-9	201-254-7	1- < 2,5 %	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
N,N-Diethyl-p-toluidine 613-48-9	210-345-0	0,1- < 1 %	Acute Tox. 3; Oral H301 Acute Tox. 3; Dermal H311 Acute Tox. 3; Inhalation H331 STOT RE 2 H373 Aquatic Chronic 3 H412
Maleic acid 110-16-7	203-742-5 01-2119488705-25	0,1- < 1 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 STOT SE 3 H335
N,N-dimethyl-o-toluidine 609-72-3	210-199-8	0,1- < 1 %	Acute Tox. 3; Inhalation H331 Acute Tox. 3; Dermal H311 Acute Tox. 3; Oral H301 STOT RE 2 H373 Aquatic Chronic 3 H412
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

1,4-Naphthalenedione 130-15-4	204-977-6	0,01- < 0,025 % (100 ppm- < 250 ppm)	Carc. 2 H351 Acute Tox. 3; Oral H301 Skin Irrit. 2; Dermal H315 Skin Sens. 1; Dermal H317 Eye Irrit. 2 H319 Acute Tox. 1; Inhalation H330 STOT SE 3; Inhalation H335 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 M factor (Acute Aquat Tox): 10 M factor (Chron Aquat Tox): 10
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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.
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

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

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

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:

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.

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.

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:

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

Refer to Technical Data Sheet

7.3. Specific end use(s)

Adhesive

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 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure LimitsValid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, TOTAL INHALABLE DUST]		6	Time Weighted Average (TWA):		IR_OEL
Silicon dioxide 112945-52-5 [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	
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						
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	aqua (freshwater)		0,904 mg/l				
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	aqua (marine water)		0,904 mg/l				
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	sewage treatment plant (STP)		10 mg/l				
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	aqua (intermittent releases)		0,972 mg/l				
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	sediment (freshwater)				6,28 mg/kg		
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	sediment (marine water)				6,28 mg/kg		
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	soil				0,727 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (freshwater)		0,0031 mg/l				
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (marine water)		0,00031 mg/l				
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (intermittent releases)		0,031 mg/l				
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	Sewage treatment plant		0,35 mg/l				
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	sediment (freshwater)				0,023 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	sediment (marine water)				0,0023 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	soil				0,0029 mg/kg		
Maleic acid 110-16-7	aqua (freshwater)		0,1 mg/l				
Maleic acid 110-16-7	aqua (intermittent releases)		0,4281 mg/l				
Maleic acid 110-16-7	sediment (freshwater)				0,334 mg/kg		
Maleic acid 110-16-7	sewage treatment plant (STP)		44,6 mg/l				

Maleic acid 110-16-7	aqua (marine water)		0,01 mg/l			
Maleic acid 110-16-7	sediment (marine water)				0,0334 mg/kg	
Maleic acid 110-16-7	soil				0,0415 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	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	Workers	dermal	Long term exposure - systemic effects		4,2 mg/kg	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	Workers	Inhalation	Long term exposure - systemic effects		14,7 mg/m ³	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	General population	dermal	Long term exposure - systemic effects		2,5 mg/kg	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	General population	Inhalation	Long term exposure - systemic effects		8,8 mg/m ³	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	General population	oral	Long term exposure - systemic effects		2,5 mg/kg	
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	Workers	inhalation	Long term exposure - systemic effects		6 mg/m ³	
Maleic acid 110-16-7	Workers	dermal	Acute/short term exposure - local effects		0,55 mg/cm ²	
Maleic acid 110-16-7	Workers	dermal	Long term exposure - local effects		0,04 mg/cm ²	
Maleic acid 110-16-7	Workers	dermal	Acute/short term exposure - systemic effects		58 mg/kg	
Maleic acid 110-16-7	Workers	dermal	Long term exposure - systemic effects		3,3 mg/kg	
Maleic acid 110-16-7	Workers	inhalation	Acute/short term exposure - local effects		3 mg/m ³	
Maleic acid 110-16-7	Workers	inhalation	Long term exposure - systemic effects		3 mg/m ³	
Maleic acid 110-16-7	Workers	inhalation	Long term exposure - local effects		3 mg/m ³	
Maleic acid 110-16-7	Workers	inhalation	Acute/short term exposure - systemic effects		3 mg/m ³	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:
Ensure adequate ventilation.

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.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	liquid green
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	> 150 °C (> 302 °F)
Flash point	> 93,3 °C (> 199.94 °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 (20 °C (68 °F))	< 0,1 mbar
Vapour pressure (50 °C (122 °F))	< 300 mbar
Relative vapour density:	No data available / Not applicable

Density (20 °C (68 °F))	1,16 g/cm ³
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Acetone)	Not 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

Reaction with strong acids.
Reacts with strong oxidants.

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

See section reactivity.

10.6. Hazardous decomposition products

None known.

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.

Eye irritation:

Causes serious eye irritation.

Non corrosive to eyes according to test method OECD 438 or based on analogy to similar products tested.

Sensitizing:

May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 423 (Acute Oral toxicity)
N,N-(m- phenylene)dimaldimide 3006-93-7	LD50	2.025 mg/kg	oral		rat	not specified
Hydroxypropyl methacrylate 27813-02-1	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral		rat	not specified
Maleic acid 110-16-7	LD50	708 mg/kg	oral		rat	not specified
Acetic acid, 2- phenylhydrazide 114-83-0	LD50	270 mg/kg	oral		rat	not specified
1,4-Naphthalenedione 130-15-4	LD50	190 mg/kg	oral		rat	not specified

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
N,N-(m- phenylene)dimaldimide 3006-93-7	LC50	0,055 mg/l	dust	4 h	rat	not specified

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
Hydroxypropyl methacrylate 27813-02-1	LD50	> 5.000 mg/kg	dermal		rabbit	not specified
Cumene hydroperoxide 80-15-9	LD50	1.200 - 1.520 mg/kg	dermal			not specified
Maleic acid 110-16-7	LD50	1.560 mg/kg	dermal		rabbit	not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Hydroxypropyl methacrylate 27813-02-1	not irritating	24 h	rabbit	Draize Test
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
Maleic acid 110-16-7	irritating	24 h	human	Patch Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Maleic acid 110-16-7	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
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)
Maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	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
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)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
	positive	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
	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	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)
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
Maleic acid 110-16-7	negative	bacterial reverse mutation assay (e.g Ames test)	no data		Ames Test
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Carcinogenicity:

Hazardous components CAS-No.	Result	Species	Sex	Exposure time Frequency of treatment	Route of application	Method
Hydroxypropyl methacrylate 27813-02-1	not carcinogenic	rat	male	2 years (102 weeks) 6 hours/day, 5 days/week	inhalation	OECD Guideline 451 (Carcinogenicity Studies)
Maleic acid 110-16-7	not carcinogenic	rat	male/female	2 y daily	oral: feed	OECD Guideline 451 (Carcinogenicity Studies)

Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	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)
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)
Maleic acid 110-16-7	NOAEL F1 = 150 mg/kg NOAEL F2 = 55 mg/kg	Two generation study oral: gavage	min. 80 d	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	NOAEL=300 mg/kg	oral: gavage	4 weeksdaily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
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)
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	not specified
Maleic acid 110-16-7	NOAEL=>= 40 mg/kg	oral: feed	90 ddaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

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.

Precautions required with respect to Environmental Hazards of articles in which this product is used should be considered.

12.1. Toxicity**Ecotoxicity:**

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

Harmful to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
N,N-(m-phenylene)dimalimide 3006-93-7	EC50	31,6 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydroxypropyl methacrylate 27813-02-1	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	DIN 38412-15
Hydroxypropyl methacrylate 27813-02-1	EC50	> 143 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydroxypropyl methacrylate 27813-02-1	EC50	> 97,2 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	> 97,2 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test) not specified
Hydroxypropyl methacrylate 27813-02-1	EC10	1.140 mg/l	Bacteria	16 h		
Hydroxypropyl methacrylate 27813-02-1	NOEC	45,2 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
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	EC 50	7 mg/l	Daphnia	24 h	Water flea (Daphnia magna)	
	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test) not specified
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		
Maleic acid 110-16-7	LC50	> 245 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Maleic acid 110-16-7	EC50	42,81 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Maleic acid 110-16-7	EC50	74,35 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
N,N-dimethyl-o-toluidine 609-72-3	LC 50	46 mg/l	Fish	96 h	Fathead minnow (Pimephales promelas)	
1,4-Naphthalenedione 130-15-4	EC50	0,011 mg/l	Algae	72 h	Dunaliella bioculata	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Persistence and Biodegradability:

The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	not readily biodegradable.	aerobic	24 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
N,N-(m-phenylene)dimaldimide 3006-93-7	not readily biodegradable.	not specified	0 - < 60 %	OECD Guideline 303 A (Simulation Test Aerobic Sewage Treatment, A: Activated Sludge Units)
Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Maleic acid 110-16-7	readily biodegradable	aerobic	97,08 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
1,4-Naphthalenedione 130-15-4		no data	0 - 60 %	OECD 301 A - F

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
Ethoxylated bisphenol A dimethacrylate esters 41637-38-1	5,3 - 5,62					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Hydroxypropyl methacrylate 27813-02-1	0,97				20 °C	not specified
Cumene hydroperoxide 80-15-9		9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) not specified
Cumene hydroperoxide 80-15-9	2,16					
Maleic acid 110-16-7	-1,3				20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Acetic acid, 2-phenylhydrazide 114-83-0	0,74					not specified
1,4-Naphthalenedione 130-15-4	1,71					not specified

12.5. Results of PBT and vPvB assessment

Hazardous components 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.
Hydroxypropyl methacrylate 27813-02-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Cumene hydroperoxide 80-15-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Maleic acid 110-16-7	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:

Dispose of in accordance with local and national regulations.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

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

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 < 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.
- 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.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H331 Toxic 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.
- 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.
- 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.