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

SDS No. : 612552
V001.0

LOCTITE ABLESTIK NCA 2286 30ML

Revision: 03.07.2020
printing date: 01.09.2020
Replaces version from: -

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

1.1. Product identifier
LOCTITE ABLESTIK NCA 2286 30ML

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Acrylic 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 sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Toxic to reproduction	Category 1B
H360FD May damage fertility. May damage the unborn child.	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains Dicyclopentyldimethylene diacrylate

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	TMP-tris(b-mercaptopropionate) Isobornyl acrylate reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one Impurities
Signal word:	Danger
Hazard statement:	H317 May cause an allergic skin reaction. H360FD May damage fertility. May damage the unborn child. H411 Toxic to aquatic life with long lasting effects.
Supplemental information	Restricted to professional users.
Precautionary statement: Prevention	P201 Obtain special instructions before use. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing.
Precautionary statement: Response	P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Dicyclopentyldimethylene diacrylate 42594-17-2	255-901-3 01-2120051112-76	10- < 20 %	Skin Sens. 1 H317 Aquatic Chronic 2 H411
TMP-tris(b-mercaptopropionate) 33007-83-9	251-336-1	10- < 20 %	Acute Tox. 4; Oral H302 Skin Sens. 1A H317 STOT SE 3 H335 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
Isobornyl acrylate 5888-33-5	227-561-6 01-2119957862-25	5- < 10 %	Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Sens. 1B H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	01-2119456619-26	1- < 5 %	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	4006006, 400-600-6 01-0000015054-80	0,1- < 1 %	Repr. 1B H360FD Acute Tox. 4; Oral H302 Aquatic Chronic 2 H411 ===== EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC)
Impurities		0,1- < 1 %	Skin Sens. 1 H317

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, consult doctor if complaint persists.

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.

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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: 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:
water, 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 (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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
Wear protective equipment.
Ensure adequate ventilation.
Keep away from sources of ignition.

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.
See advice in section 8

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
Ensure good ventilation/extraction.
Keep container tightly sealed.
Refer to Technical Data Sheet

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7.3. Specific end use(s)
Acrylic Adhesive

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

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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				
Isobornyl acrylate 5888-33-5	aqua (freshwater)		0,00092 mg/l				
Isobornyl acrylate 5888-33-5	aqua (marine water)		0,000092 mg/l				
Isobornyl acrylate 5888-33-5	sewage treatment plant (STP)		2 mg/l				
Isobornyl acrylate 5888-33-5	aqua (intermittent releases)		0,00704 mg/l				
Isobornyl acrylate 5888-33-5	sediment (freshwater)				0,145 mg/kg		
Isobornyl acrylate 5888-33-5	sediment (marine water)				0,0145 mg/kg		
Isobornyl acrylate 5888-33-5	Soil				0,0285 mg/kg		
Isobornyl acrylate 5888-33-5	Air						no hazard identified
Isobornyl acrylate 5888-33-5	Predator						no potential for bioaccumulation
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	aqua (freshwater)		0,006 mg/l				
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	aqua (marine water)		0,001 mg/l				
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	sewage treatment plant (STP)		10 mg/l				
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	sediment (freshwater)				0,341 mg/kg		
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	sediment (marine water)				0,034 mg/kg		
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	Soil				0,065 mg/kg		
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	oral				11 mg/kg		
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	aqua (intermittent releases)		0,018 mg/l				
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	marine water - intermittent		0,002 mg/l				
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	aqua (freshwater)		0,0172 mg/l				

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71868-10-5							
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	aqua (marine water)		0,00172 mg/l				
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	aqua (intermittent releases)		0,016 mg/l				
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	sewage treatment plant (STP)		1 mg/l				
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	sediment (freshwater)				1,13864 mg/kg		
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	sediment (marine water)				0,113864 mg/kg		
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	Soil				0,123 mg/kg		

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Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Isobornyl acrylate 5888-33-5	Workers	dermal	Long term exposure - systemic effects		1,39 mg/kg	no hazard identified
Isobornyl acrylate 5888-33-5	General population	oral	Long term exposure - systemic effects		0,83 mg/kg	no hazard identified
Isobornyl acrylate 5888-33-5	General population	dermal	Long term exposure - systemic effects		0,83 mg/kg	no hazard identified
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	Workers	dermal	Acute/short term exposure - systemic effects		8,33 mg/kg	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	Workers	Inhalation	Acute/short term exposure - systemic effects		12,25 mg/m3	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	Workers	dermal	Long term exposure - systemic effects		8,33 mg/kg	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	Workers	Inhalation	Long term exposure - systemic effects		12,25 mg/m3	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	General population	dermal	Acute/short term exposure - systemic effects		3,571 mg/kg	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	General population	dermal	Long term exposure - systemic effects		3,571 mg/kg	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	General population	oral	Acute/short term exposure - systemic effects		0,75 mg/kg	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	General population	oral	Long term exposure - systemic effects		0,75 mg/kg	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	General population	inhalation	Acute/short term exposure - systemic effects		0,75 mg/m3	
reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6	General population	inhalation	Long term exposure - systemic effects		0,75 mg/m3	
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	Workers	dermal	Long term exposure - systemic effects		0,4 mg/kg	
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	Workers	inhalation	Long term exposure - systemic effects		2,28 mg/m3	
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	General population	dermal	Long term exposure - systemic effects		0,2 mg/kg	
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	General population	oral	Long term exposure - systemic effects		0,2 mg/kg	
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	General population	inhalation	Long term exposure - systemic effects		0,7 mg/m3	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

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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 liquid black
Odor	mild
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	> 100 °C (> 212 °F)
Flash point	> 100 °C (> 212 °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 ()	1,3 g/cm3
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative)	No data available / Not applicable
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 ()	43.000 mPa.s
Viscosity (kinematic)	No data available / Not applicable

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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 strong oxidants.
Strong bases.
Acids.
Reducing agents.

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.

10.5. Incompatible materials
See section reactivity.

10.6. Hazardous decomposition products
carbon oxides.
Hydrocarbons
nitrogen oxides
Rapid polymerisation may generate excessive heat and pressure.

SECTION 11: Toxicological information

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
Dicyclopentyldimethylene diacrylate 42594-17-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
TMP-tris(b-mercaptopropionate) 33007-83-9	LD50	> 300 - < 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Isobornyl acrylate 5888-33-5	LD50	4.350 mg/kg	rat	not specified
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 420 (Acute Oral Toxicity)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	LD50	1.984 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

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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
Dicyclopentyldimethylene diacrylate 42594-17-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Isobornyl acrylate 5888-33-5	LD50	> 3.000 mg/kg	rabbit	other guideline:
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

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
TMP-tris(b-mercaptopropionate) 33007-83-9	LC50	> 3,363 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

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
Dicyclopentyldimethylene diacrylate 42594-17-2	not irritating		In vitro	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
TMP-tris(b-mercaptopropionate) 33007-83-9	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Isobornyl acrylate 5888-33-5	irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	moderately irritating	24 h	rabbit	Draize Test

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
Dicyclopentyldimethylene diacrylate 42594-17-2	not irritating		In vitro	OECD Guideline 437 (BCOP)
TMP-tris(b-mercaptopropionate) 33007-83-9	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

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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
Dicyclopentyldimethylene diacrylate 42594-17-2	sensitising	Freund's complete adjuvant test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
TMP-tris(b-mercaptopropionate) 33007-83-9	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Isobornyl acrylate 5888-33-5	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	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
Dicyclopentyldimethylene diacrylate 42594-17-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isobornyl acrylate 5888-33-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isobornyl acrylate 5888-33-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Isobornyl acrylate 5888-33-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)

Carcinogenicity

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

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not carcinogenic	dermal	2 y daily	mouse	male	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not carcinogenic	oral: gavage	2 y daily	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

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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
Isobornyl acrylate 5888-33-5	NOAEL P 100 mg/kg NOAEL F1 100 mg/kg		oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOAEL P >= 50 mg/kg NOAEL F1 >= 750 mg/kg NOAEL F2 >= 750 mg/kg	Two generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

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
Dicyclopentyldimethylene diacrylate 42594-17-2	NOAEL 1.000 mg/kg	oral: gavage		rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
Isobornyl acrylate 5888-33-5	NOAEL 100 mg/kg	oral: gavage	once daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOAEL 50 mg/kg	oral: gavage	14 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

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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
TMP-tris(b-mercaptopropionate) 33007-83-9	LC50	0,156 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Isobornyl acrylate 5888-33-5	LC50	0,704 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LC50	1,75 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	LC50	9 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
Dicyclopentyldimethylene diacrylate 42594-17-2	EC50	2,36 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Isobornyl acrylate 5888-33-5	EC50	1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	EC50	1,7 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	EC50	15,3 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Impurities	EC50	5,2 mg/l	48 h	Daphnia magna	not specified

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
Isobornyl acrylate 5888-33-5	NOEC	0,092 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	NOEC	1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

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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
Dicyclopentyldimethylene diacrylate 42594-17-2	EC50	1,6 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dicyclopentyldimethylene diacrylate 42594-17-2	EC10	0,64 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
TMP-tris(b-mercaptopropionate) 33007-83-9	NOEC	0,12 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isobornyl acrylate 5888-33-5	NOEC	0,405 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isobornyl acrylate 5888-33-5	EC50	1,98 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	EC50	> 11 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOEC	4,2 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	EC50	1,6 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	NOEC	0,86 mg/l	72 h	Desmodesmus subspicatus	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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	EC 50	> 100 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Dicyclopentyldimethylene diacrylate 42594-17-2	not readily biodegradable.	aerobic	28 %	28 day	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
TMP-tris(b-mercaptopropionate) 33007-83-9	not readily biodegradable.	aerobic	9,1 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Isobornyl acrylate 5888-33-5	not readily biodegradable.	aerobic	57 %	28 d	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not readily biodegradable.	aerobic	5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	not readily biodegradable.	aerobic	< 1 %	28 day	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

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12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Isobornyl acrylate 5888-33-5	37	56 h	24 °C	Danio rerio	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	< 10,1	56 d		Oryzias latipes	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)

12.4. Mobility in soil

Cured adhesives are immobile.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Dicyclopentyldimethylene diacrylate 42594-17-2	4,6		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
TMP-tris(b-mercaptopropionate) 33007-83-9	2,8	20 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Isobornyl acrylate 5888-33-5	4,52		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	3,242	25 °C	EU Method A.8 (Partition Coefficient)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	3,09	20 - 25 °C	EU Method A.8 (Partition Coefficient)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Isobornyl acrylate 5888-33-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 71868-10-5	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:
Do not empty into drains / surface water / ground water.
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.

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SECTION 14: Transport information

14.1. UN number

ADR	3082
RID	3082
ADN	3082
IMDG	3082
IATA	3082

14.2. UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
IATA	Environmentally hazardous substance, liquid, n.o.s. (Isobornyl acrylate)

14.3. Transport hazard class(es)

ADR	9
RID	9
ADN	9
IMDG	9
IATA	9

14.4. Packing group

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	Marine pollutant
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode:
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), 197 (IATA), 969 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

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

not applicable

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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:

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H360FD May damage fertility. May damage the unborn child.
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.

Further information:

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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.

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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.