

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

Page 1 of 12

Loctite 366

sds no. : 153528 V003.2 Revision: 12.07.2011 printing date: 18.04.2012

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

Product identifier: Loctite 366 Relevant identified uses of the substance or mixture and uses advised against: Intended use: Ultraviolet adhesive

Details of the supplier of the safety data sheet:

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Ireland

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SECTION 2: Hazards identification

Classification of the substance or mixture:

Classification (DPD): Sensitizing R43 May cause sensitisation by skin contact. Xi - Irritant R36/37/38 Irritating to eyes, respiratory system and skin. Dangerous for the environment R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label elements (DPD):

Xi - Irritant

N - Dangerous for the environment





Risk phrases:

R36/37/38 Irritating to eyes, respiratory system and skin.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S24 Avoid contact with skin.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of water and soap.

S37 Wear suitable gloves.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional labeling:

For consumer use only: S2 Keep out of the reach of children

S46 If swallowed, seek medical advice immediately and show this container or label.

Contains:

2-Hydroxyethyl methacrylate, Hydroxypropyl methacrylate

Other hazards:

None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:

UV curing acrylic adhesive

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2-Hydroxyethyl methacrylate 868-77-9	212-782-2	>= 25-< 50 %	Serious eye irritation 2 H319
			Skin irritation 2
			H315
			Skin sensitizer 1
			H317
Isobornyl methacrylate	231-403-1	>= 10-< 20 %	Serious eye irritation 2
7534-94-3			H319
			Skin irritation 2
			H315
			Specific target organ toxicity - single exposure 3
			H335
Acrylic acid	201-177-9	>= 1-< 5 %	Acute toxicity 4; Oral
79-10-7	201-177-9	$\geq 1^{-1} < 5^{-10}$	H302
/9-10-7			Skin corrosion 1A
			H314
			Flammable liquids 3
			H226
			Acute toxicity 4; Dermal
			H312
			Acute hazards to the aquatic environment 1
			H400
			Acute toxicity 4; Inhalation
~			H332
Cumene hydroperoxide	201-254-7	>= 0-< 1%	Acute toxicity 4; Dermal
80-15-9			H312
			Specific target organ toxicity - repeated exposure 2
			H373
			Acute toxicity 3; Inhalation
			H331
			Acute toxicity 4; Oral
			H302
			Organic peroxides E
			H242
			Chronic hazards to the aquatic environment 2 H411
			Skin corrosion 1B
			H314
Cumene	202-704-5	>= 0-< 2,5 %	Flammable liquids 3
98-82-8			H226
			Aspiration hazard 1
			H304
			Specific target organ toxicity - single
			exposure 3
			H335
			Chronic hazards to the aquatic environment 2
			H411

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

Only dangerous ingredients for which a CLP classification is already available are displayed in this table. 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.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2-Hydroxyethyl methacrylate 868-77-9	212-782-2	>= 25 - < 50 %	Xi - Irritant; R36/38 R43
Isobornyl methacrylate 7534-94-3	231-403-1	>= 10 - < 20 %	N - Dangerous for the environment; R51/53 Xi - Irritant; R36/37/38
Hydroxypropyl methacrylate 27813-02-1	248-666-3	>= 1 - < 10 %	Xi - Irritant; R36, R43
Acrylic acid 79-10-7	201-177-9	>= 1 - < 5 %	Xn - Harmful; R20/21/22 R10 C - Corrosive; R35 N - Dangerous for the environment; R50
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	246-386-6	>= 0,25 - < 2,5 %	N - Dangerous for the environment; R50/53
Cumene hydroperoxide 80-15-9	201-254-7	>= 0-< 1 %	T - Toxic; R23 Xn - Harmful; R21/22, R48/20/22 O - Oxidizing; R7 C - Corrosive; R34 N - Dangerous for the environment; R51, R53
Cumene 98-82-8	202-704-5	>= 0-< 2,5 %	R10 Xn - Harmful; R65 Xi - Irritant; R37 N - Dangerous for the environment; R51, R53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'. Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

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.

Eye 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.

Most important symptoms and effects, both acute and delayed:

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

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

SKIN: Rash, Urticaria.

Indication of any immediate medical attention and special treatment needed: See section: Description of first aid measures

SECTION 5: Firefighting measures

Extinguishing media: Suitable extinguishing media: Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

None known

Special hazards arising from the substance or mixture:

None

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

Advice for firefighters:

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

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid skin and eye contact.

Environmental precautions:

Do not let product enter drains.

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.

Reference to other sections:

See advice in chapter 8

SECTION 7: Handling and storage

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.

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.

Conditions for safe storage, including any incompatibilities:

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

Specific end use(s):

Ultraviolet adhesive

SECTION 8: Exposure controls/personal protection

Control parameters:

Valid for

Great	

Ingredient	ppm	mg/m ³	Туре	Category	Remarks
CUMENE	25	125	Time Weighted Average		EH40 WEL
98-82-8			(TWA):		
CUMENE	50	250	Short Term Exposure		EH40 WEL
98-82-8			Limit (STEL):		
CUMENE			Skin designation:	Can be absorbed through the	EH40 WEL
98-82-8				skin.	
CUMENE			Skin designation:	Can be absorbed through the	ECTLV
98-82-8				skin.	
CUMENE	50	250	Short Term Exposure	Indicative	ECTLV
98-82-8			Limit (STEL):		
CUMENE	20	100	Time Weighted Average	Indicative	ECTLV
98-82-8			(TWA):		

Exposure controls:

Engineering controls:

UV lamp should be designed, installed and operated in such a way as to eliminate exposure of the skin and eyes to stray radiation

Respiratory protection:

Use only in well-ventilated areas.

Hand protection:

The use of chemical resistant gloves such as Nitrile are recommended.

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:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

yellow

Sharp

Information on basic physical and chemical properties: Appearance liquid

Odor

pH Initial boiling point Flash point Decomposition temperature Vapour pressure Density () Bulk density No data available / Not applicable > 148,9 °C (> 300 °F) > 93,3 °C (> 199.94 °F) No data available / Not applicable < 13,3300000 mbar 1,1100 g/cm3

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
Solubility (qualitative)	Slight
(Solvent: Water)	
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

Other information:

No data available / Not applicable

SECTION 10: Stability and reactivity

Reactivity:

Reaction with strong acids. Reacts with strong oxidants.

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

See section reactivity

Conditions to avoid: Stable

Incompatible materials: No data available.

Hazardous decomposition products:

carbon oxides.

SECTION 11: Toxicological information

General toxicological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:

May cause irritation to the digestive tract.

Inhalative toxicity:

Irritating to respiratory system

Skin irritation:

Irritating to the skin.

Eye irritation:

Irritating to eyes.

Sensitizing:

May cause sensitization by skin contact.

Acute toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
Cumene hydroperoxide	LD50	550 mg/kg	oral		rat	
80-15-9	LC50	220 ppm	inhalation	4 h	rat	
	LD50	500 mg/kg	dermal		rat	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Cumene hydroperoxide	corrosive		rabbit	
80-15-9				

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-Hydroxyethyl methacrylate 868-77-9	negative positive	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline OECD Guideline 473 OH Mammalian Chromosome Aberration Test)
Acrylic acid 79-10-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
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	

SECTION 12: Ecological information

General ecological information:

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

Toxic to aquatic organisms

May cause long-term adverse effects in the aquatic environment.

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Mobility:

Cured adhesives are immobile.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2-Hydroxyethyl methacrylate 868-77-9	LC50	227 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	380 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation
2-Hydroxyethyl methacrylate 868-77-9	EC50	345 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	Test) OECD Guideline 201 (Alga, Growth Inhibition Test)
Isobornyl methacrylate 7534-94-3	LC50	1,79 mg/l	Fish	96 h	subcapitata)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Isobornyl methacrylate 7534-94-3	EC50	1,1 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	Test)
Acrylic acid 79-10-7	LC50	27 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Acrylic acid 79-10-7	EC50	47 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Acrylic acid 79-10-7	EC50	0,04 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	LC50	7,2 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC50	26 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC50	0,17 mg/l	Algae	72 h	Scenedesmus sp.	OECD Guideline 201 (Alga, Growth Inhibition 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	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	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene 98-82-8	LC50	4,8 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene 98-82-8	EC50	4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene 98-82-8	EC50	2,6 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

H	Iazardous components	Result	Route of	Degradability	Method
	CAS-No.		application		
			upplication		

MSDS-No.: 153528 Loctite 366 V003.2

2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	98 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Isobornyl methacrylate 7534-94-3			26,8 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
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)
Cumene hydroperoxide 80-15-9			18 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Cumene 98-82-8		aerobic	86 %	

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Hydroxypropyl methacrylate 27813-02-1	0,97					
Acrylic acid 79-10-7	0,46				25 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	3,42					
Cumene hydroperoxide 80-15-9		9,1				OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene hydroperoxide 80-15-9	2,16					C ,
Cumene 98-82-8		35,5		Carassius auratus		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene 98-82-8	3,55				23 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)

SECTION 13: Disposal considerations

Waste treatment methods:

Product disposal:

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

SECTION 14: Transport information

Road transport ADR:

Class: Packaging group: Classification code: Hazard ident. number: UN no.: Label: Technical name: Tunnelcode:	9 III M6 90 3082 9 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate) (E)
Railroad transport RID:	
Class: Packaging group: Classification code: Hazard ident. number: UN no.: Label: Technical name: Tunnelcode:	9 III M6 90 3082 9 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)
Inland water transport ADN:	
Class: Packaging group: Classification code: Hazard ident. number: UN no.: Label: Technical name:	9 III M6 3082 9 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)
Marine transport IMDG:	
Class: Packaging group: UN no.: Label: EmS: Seawater pollutant: Proper shipping name:	9 III 3082 9 F-A ,S-F Marine pollutant ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)
Air transport IATA:	
Class: Packaging group: Packaging instructions (passenger) Packaging instructions (cargo) UN no.: Label: Proper shipping name:	9 III 964 964 3082 9 Environmentally hazardous substance, liquid, n.o.s. (2,2-Dimethoxy- 1,2-diphenylethan-1-one,Isobornyl acrylate)

SECTION 15: Regulatory information

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

VOC content	
(1999/13/EC)	

< 3,00 %

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:

SECTION 16: Other information

R10 Flammable. R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R21/22 Harmful in contact with skin and if swallowed. R23 Toxic by inhalation. R34 Causes burns. R35 Causes severe burns. R36 Irritating to eyes. R36/37/38 Irritating to eyes, respiratory system and skin. R36/38 Irritating to eyes and skin. R37 Irritating to respiratory system. R43 May cause sensitisation by skin contact. R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. R50 Very toxic to aquatic organisms. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R51 Toxic to aquatic organisms. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R53 May cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed. R7 May cause fire. H226 Flammable liquid and vapour. H242 Heating may cause a fire. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. 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. 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.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it's subsequent amendments, and Commission Directive 1999/45/EC.