

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

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Loctite 326

sds no. : 168434 V002.3 Revision: 27.08.2012 printing date: 01.10.2013

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

## 1.1. Product identifier

## Loctite 326

**1.2. Relevant identified uses of the substance or mixture and uses advised against** Intended use: Acrylics

#### 1.3. Details of the supplier of the safety data sheet

Henkel Limited Apollo Court, 2 Bishop Square Business Park AL10 9EY Hatfield

Great Britain

Phone: +44 (1707) 635000 Fax-no.: +44 (1707) 635099

ua-productsafety.uk@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 (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 R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 2.2. Label elements

## Label elements (DPD):

### Xi - Irritant



## Risk phrases:

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

R43 May cause sensitisation by skin contact.

R52/53 Harmful 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

#### 2.3. Other hazards

None if used properly.

## **SECTION 3: Composition/information on ingredients**

#### General chemical description: Acrylate adhesive

Declaration of the ingredients according to CL	<b>.P (EC) No 1272/2008:</b>
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Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2-Hydroxyethyl methacrylate 868-77-9	212-782-2 01-2119490169-29	> 20-< 30 %	Skin irritation 2 H315 Serious eye irritation 2 H319
			Skin sensitizer 1 H317
Isobornyl methacrylate 7534-94-3	231-403-1	> 10-< 20 %	Serious eye irritation 2 H319 Skin irritation 2 H315 Specific target organ toxicity - single
			exposure 3 H335
Acrylic acid 79-10-7	201-177-9 01-2119452449-31	> 1-< 5%	Acute toxicity 4; Oral H302 Skin corrosion 1A H314 Flammable liquids 3 H226 Acute toxicity 4; Dermal H312 Acute hazards to the aquatic environment 1
			Acute hazards to the aquate environment 1 H400 Acute toxicity 4; Inhalation H332
Cumene hydroperoxide 80-15-9	201-254-7	> 0,1-< 0,9 %	Acute toxicity 4; Dermal 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 98-82-8	202-704-5	> 0,1-< 0,3 %	Flammable liquids 3 H226 Aspiration hazard 1 H304 Specific target organ toxicity - single exposure 3 H335 Chronic hazards to the aquatic environment 2 H411
Hydroxypropyl methacrylate 27813-02-1	248-666-3	> 1-< 5%	Skin sensitizer 1; Dermal H317 Serious eye irritation 2 H319

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	212-782-2	> 20 - < 30 %	Xi - Irritant; R36/38
868-77-9	01-2119490169-29		R43
Isobornyl methacrylate	231-403-1	> 10 - $<$ 20 %	N - Dangerous for the environment; R51/53
7534-94-3			Xi - Irritant; R36/37/38
Acrylic acid	201-177-9	> 1-< 5 %	Xn - Harmful; R20/21/22
79-10-7	01-2119452449-31		R10
			C - Corrosive; R35
			N - Dangerous for the environment; R50
Cumene hydroperoxide	201-254-7	> 0,1 - < 0,9 %	T - Toxic; R23
80-15-9			Xn - Harmful; R21/22, R48/20/22
			O - Oxidizing; R7
			C - Corrosive; R34
			N - Dangerous for the environment; R51/53
Cumene	202-704-5	> 0,1 - < 0,3 %	R10
98-82-8			Xn - Harmful; R65
			Xi - Irritant; R37
			N - Dangerous for the environment; R51/53
Hydroxypropyl methacrylate 27813-02-1	248-666-3	> 1-< 5 %	Xi - Irritant; R36, R43

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**

#### 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.

#### 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.

**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.

EYE: Irritation, conjunctivitis.

**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

None

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

#### 5.3. Advice for firefighters

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

## **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact. See advice in chapter 8

#### **6.2.** Environmental precautions

Do not let product enter drains.

#### 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 Chapter 13.

#### 6.4. Reference to other sections

See advice in chapter 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.

#### Hygiene measures:

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

#### 7.2. Conditions for safe storage, including any incompatibilities

Store in 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)

Acrylics

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters Valid for

Great Britain Basis

UK EH40 WELs

Ingredient	ppm	mg/m3	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):		

## Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value		Remarks		
	<b>^</b>	•	mg/l	ppm	mg/kg	others	
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	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		
Acrylic acid 79-10-7	aqua (freshwater)		0,003 mg/l				
Acrylic acid 79-10-7	aqua (marine water)		0,0003 mg/l				
Acrylic acid 79-10-7	aqua (intermittent releases)		0,0013 mg/l				
Acrylic acid 79-10-7	STP		0,9 mg/l				
Acrylic acid 79-10-7	sediment (freshwater)				0,0236 mg/kg		
Acrylic acid 79-10-7	sediment (marine water)				0,00236 mg/kg		
Acrylic acid 79-10-7	soil				1 mg/kg		
Acrylic acid 79-10-7	oral				0,0023 mg/kg		

## **Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2-Hydroxyethyl methacrylate 868-77-9	worker	dermal	Long term exposure - systemic effects		1,3 mg/kg bw/day	
2-Hydroxyethyl methacrylate 868-77-9	worker	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 bw/day	
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 bw/day	
Acrylic acid 79-10-7	worker	inhalation	Long term exposure - local effects		30 mg/m3	
Acrylic acid 79-10-7	worker	inhalation	Acute/short term exposure - local effects		30 mg/m3	
Acrylic acid 79-10-7	worker	dermal	Acute/short term exposure - local effects		1 mg/cm2	

#### **Biological Exposure Indices:**

#### 8.2. Exposure controls:

Respiratory protection:

Use only in well-ventilated areas. 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

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:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.

## **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties Appearance liquid

Odor	transparent Amber no valuation
pH Initial boiling point	No data available / Not applicable > 149,0 °C (> $300.2$ °F)
Flash point	> 93,3 °C (> 199.94 °F); Tagliabue closed cup
Decomposition temperature	No data available / Not applicable
Vapour pressure	< 13 mbar
(26,6 °C (79.9 °F))	
Density	1,1 g/cm3
(25 °C (77 °F))	
Bulk density	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

#### 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

Stable

**10.5. Incompatible materials** 

No data available.

#### 10.6. Hazardous decomposition products

carbon oxides.

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

#### 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 CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
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 80-15-9	corrosive		rabbit	

#### 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 473 (In vitro 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.

Harmful 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.

## 12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2-Hydroxyethyl methacrylate	LC50	227 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline
868-77-9		C				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	345 mg/l	Algae	72 h	Selenastrum capricornutum	OECD Guideline
868-77-9					(new name: Pseudokirchnerella	201 (Alga, Growth
	1.070				subcapitata)	Inhibition Test)
Isobornyl methacrylate 7534-94-3	LC50	1,79 mg/l	Fish	96 h		OECD Guideline
/534-94-5						203 (Fish, Acute Toxicity Test)
Isobornyl methacrylate	EC50	1,1 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
7534-94-3		-,8				202 (Daphnia sp.
						Acute
						Immobilisation
A 1' 'I	1.050	27 /	E. 1	0.61		Test)
Acrylic acid 79-10-7	LC50	27 mg/l	Fish	96 h	Salmo gairdneri (new name:	OECD Guideline 203 (Fish, Acute
/9-10-7					Oncorhynchus mykiss)	Toxicity Test)
Acrylic acid	EC50	47 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
79-10-7	2000	17 mg/1	Dupiniu	.0.11	2 upiniu niugini	202 (Daphnia sp.
						Acute
						Immobilisation
	D.G.CO	0.04	1	72.1		Test)
Acrylic acid 79-10-7	EC50	0,04 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus	OECD Guideline 201 (Alga, Growth
/9-10-7					subspicatus)	Inhibition Test)
Cumene hydroperoxide	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline
80-15-9		, 6			5 5	203 (Fish, Acute
			l	ļ		Toxicity Test)
Cumene hydroperoxide	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
80-15-9						202 (Daphnia sp.
						Acute Immobilisation
						Test)
Cumene hydroperoxide	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline
80-15-9		, 6	U		1	201 (Alga, Growth
						Inhibition Test)
Cumene	LC50	4,8 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline
98-82-8						203 (Fish, Acute
Cumene	EC50	4 mg/l	Daphnia	48 h	Daphnia magna	Toxicity Test) OECD Guideline
98-82-8	LCJU	4 mg/1	Dapinna	40 11	Daphina magna	202 (Daphnia sp.
						Acute
						Immobilisation
			1			Test)
Cumene	EC50	2,6 mg/l	Algae	72 h	Selenastrum capricornutum	OECD Guideline
98-82-8					(new name: Pseudokirchnerella	
Hydroxypropyl methacrylate	LC50	493 mg/l	Fish	48 h	subcapitata) Leuciscus idus melanotus	Inhibition Test)
27813-02-1	1030	775 mg/1	1 1511		Leuciscus idus inclanotus	

## 12.2. Persistence and degradability

Hazardous components	Result	Route of	Degradability	Method
CAS-No.		application		

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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)
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 %	
Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)

## 12.3. Bioaccumulative potential / 12.4. Mobility in soil

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

## **SECTION 13: Disposal considerations**

#### **13.1.** 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**

#### General information:

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

## **SECTION 15: Regulatory information**

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

## **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: 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.
  - R51/53 Toxic to aquatic organisms, 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.