

LOCTITE 275

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

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SDS No.: 173044

V004.1 Revision: 21.06.2018

printing date: 24.03.2021

Replaces version from: 12.07.2017

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

1.1. Product identifier

LOCTITE 275

Contains:

Cumene hydroperoxide

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

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Serious eye irritation Category 2

H319 Causes serious eye irritation.

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.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word: Warning

Hazard statement: H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

Supplemental information Contains Methyl methacrylate. May produce an allergic reaction.

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: P261 Avoid breathing vapours.

Prevention P273 Avoid release to the environment.

Precautionary statement: P337+P313 If eye irritation persists: Get medical advice/attention.

Response

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

General chemical description:

Methacrylate resin based threadlocker

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Cumene hydroperoxide 80-15-9	201-254-7	1- < 3 %	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
N,N-Diethyl-p-toluidine 613-48-9	210-345-0	0,1-< 1 %	H314 Acute Tox. 3; Oral H301
			Acute Tox. 3; Dermal H311 Acute Tox. 3; Inhalation
			H331 STOT RE 2
			H373 Aquatic Chronic 3 H412
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
Methyl methacrylate 80-62-6	201-297-1 01-2119452498-28	0,1-< 1 %	Flam. Liq. 2 H225 STOT SE 3
			H335 Skin Irrit. 2
			H315 Skin Sens. 1 H317
1,4-Naphthalenedione 130-15-4	204-977-6	0,01-< 0,1 %	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

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.

Eve 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

EYE: Irritation, conjunctivitis.

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

Prolonged or repeated contact may cause skin irritation.

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:

Foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released. Trace amounts of toxic and/or irritating fumes may be released and the use of breathing apparatus is recommended.

5.3. Advice for firefighters

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

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 skin and eye contact.

Ensure adequate ventilation.

Wear protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well-ventilated areas.

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

Avoid skin and eye contact.

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
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100	416	Short Term Exposure Limit (STEL):		EH40 WEL
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	50	208	Time Weighted Average (TWA):		EH40 WEL
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100		Short Term Exposure Limit (STEL):	Indicative	ECTLV
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	50		Time Weighted Average (TWA):	Indicative	ECTLV

Occupational Exposure Limits

Valid 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
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	50		Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100		Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100		Short Term Exposure Limit (STEL):	Indicative	ECTLV
Methyl methacrylate 80-62-6 IMETHYL METHACRYLATEI	50		Time Weighted Average (TWA):	Indicative	ECTLV

$\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Compartment	Exposure period	Value				Remarks
		•	mg/l	ppm	mg/kg	others	
.alpha.,.alphaDimethylbenzyl	aqua		0,0031				
hydroperoxide	(freshwater)		mg/l				
80-15-9							
.alpha.,.alphaDimethylbenzyl	aqua (marine		0,00031				
hydroperoxide	water)		mg/l				
80-15-9							
.alpha.,.alphaDimethylbenzyl	aqua		0,031 mg/l				
hydroperoxide	(intermittent						
80-15-9	releases)						
.alpha.,.alphaDimethylbenzyl	Sewage		0,35 mg/l				
hydroperoxide	treatment plant						
80-15-9							
.alpha.,.alphaDimethylbenzyl	sediment				0,023		
hydroperoxide	(freshwater)				mg/kg		
80-15-9							
.alpha.,.alphaDimethylbenzyl	sediment				0,0023		
hydroperoxide	(marine water)				mg/kg		
80-15-9							
.alpha.,.alphaDimethylbenzyl	soil				0,0029		
hydroperoxide					mg/kg		
80-15-9							
Methyl methacrylate	aqua		0,94 mg/l				
80-62-6	(freshwater)						
Methyl methacrylate	aqua (marine		0,94 mg/l				
80-62-6	water)						
Methyl methacrylate	aqua		0,94 mg/l				
80-62-6	(intermittent						
	releases)						
Methyl methacrylate	sewage		10 mg/l				
80-62-6	treatment plant						
	(STP)						
Methyl methacrylate	sediment				5,74 mg/kg		
80-62-6	(freshwater)						
Methyl methacrylate	soil				1,47 mg/kg		
80-62-6							

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
.alpha.,alphaDimethylbenzyl hydroperoxide 80-15-9	Workers	inhalation	Long term exposure - systemic effects		6 mg/m3	
Methyl methacrylate 80-62-6	Workers	dermal	Acute/short term exposure - local effects		1,5 mg/cm2	
Methyl methacrylate 80-62-6	Workers	dermal	Long term exposure - systemic effects		13,67 mg/kg	
Methyl methacrylate 80-62-6	Workers	Inhalation	Long term exposure - systemic effects		208 mg/m3	
Methyl methacrylate 80-62-6	Workers	dermal	Long term exposure - local effects		1,5 mg/cm2	
Methyl methacrylate 80-62-6	Workers	Inhalation	Long term exposure - local effects		208 mg/m3	
Methyl methacrylate 80-62-6	General population	dermal	Acute/short term exposure - local effects		1,5 mg/cm2	
Methyl methacrylate 80-62-6	General population	dermal	Long term exposure - systemic effects		8,2 mg/kg	
Methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - systemic effects		74,3 mg/m3	
Methyl methacrylate 80-62-6	General population	dermal	Long term exposure - local effects		1,5 mg/cm2	
Methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - local effects		105 mg/m3	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

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 (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:

Wear protective glasses.

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 green

Odor no valuation

Odour threshold No data available / Not applicable

pH 3,00 - 6,00

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

Initial boiling point > 200,0 °C (> 392 °F) Flash point > 100 °C (> 212 °F); None

Evaporation rate No data available / Not applicable Flammability No data available / Not applicable Explosive limits No data available / Not applicable

Vapour pressure < 0,1300000 mbar

(25,0 °C (77 °F))

Vapour pressure < 300 mbar

(50 °C (122 °F))

Relative vapour density: No data available / Not applicable

Density 1,0800 g/cm3

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Bulk density

No data available / Not applicable
Solubility

No data available / Not applicable

Solubility (qualitative) Not miscible

(Solvent: Water)

Solubility (qualitative) Miscible

(Solvent: Acetone)

Partition coefficient: n-octanol/water
Auto-ignition temperature
Decomposition temperature
Viscosity
Viscosity
Viscosity
Viscosity
Viscosity
Viscosity
No data available / Not applicable
Explosive properties
No data available / Not applicable
Oxidising properties
No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Peroxides.

Reaction with strong bases

Reaction with strong acids.

Reaction 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 under normal conditions of storage and use. No decomposition if stored and applied as directed.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None if used for intended purpose.

SECTION 11: Toxicological information

General toxicological information:

Prolonged or repeated contact may cause skin irritation. Prolonged or repeated contact may cause eye irritation.

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	Value	Value	Species	Method
CAS-No.	type			
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	rat	not specified
1,4-Naphthalenedione 130-15-4	LD50	190 mg/kg	rat	not specified

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
Cumene hydroperoxide 80-15-9	LD50	1.200 - 1.520 mg/kg		not specified

Acute inhalative toxicity:

No substance data available.

No data available.

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
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test

Serious eye damage/irritation:

No data available.

Respiratory or skin sensitization:

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

Hazardous substances	Result	Test type	Species	Method
CAS-No.				
Methyl methacrylate	sensitising	Mouse local lymphnode	mouse	OECD Guideline 429 (Skin Sensitisation:
80-62-6		assay (LLNA)		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
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Methyl methacrylate 80-62-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified

$\boldsymbol{\alpha}$	•		•	• .
Ca	rcin	nge	mic	vitv

No data available.

Reproductive toxicity:

No data available.

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	Result / Value	Route of	Exposure time /	Species	Method
CAS-No.		application	Frequency of		
			treatment		
Cumene hydroperoxide		inhalation:	6 h/d	rat	not specified
80-15-9		aerosol	5 d/w		
Methyl methacrylate	LOAEL 2000 ppm	inhalation	14 weeks	mouse	Dose Range Finding
80-62-6			6 hrs/day, 5 days/wk		Study
Methyl methacrylate	NOAEL 1000 ppm	inhalation	14 weeks	mouse	Dose Range Finding
80-62-6			6 hrs/day, 5 days/wk		Study

Aspiration hazard:

No data available.

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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Cumene hydroperoxide	LC50	3,9 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
80-15-9					Acute Toxicity Test)
N,N-dimethyl-o-toluidine	LC 50	46 mg/l	96 h	Fathead minnow (Pimephales	
609-72-3				promelas)	
Methyl methacrylate	LC50	350 mg/l		Leuciscus idus	OECD Guideline 203 (Fish,
80-62-6					Acute Toxicity Test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Cumene hydroperoxide 80-15-9	EC 50	7 mg/l	24 h	Water flea (Daphnia magna)	
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methyl methacrylate 80-62-6	EC50	69 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

No data available.

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Cumene hydroperoxide	ErC50	3,1 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga,
80-15-9				_	Growth Inhibition Test)
Methyl methacrylate	EC50	170 mg/l	4 d	Selenastrum capricornutum	OECD Guideline 201 (Alga,
80-62-6				(new name: Pseudokirchneriella	Growth Inhibition Test)
				subcapitata)	
Methyl methacrylate	NOEC	100 mg/l	4 d	Selenastrum capricornutum	OECD Guideline 201 (Alga,
80-62-6				(new name: Pseudokirchneriella	Growth Inhibition Test)
				subcapitata)	
1,4-Naphthalenedione	EC50	0,011 mg/l	72 h	Dunaliella bioculata	OECD Guideline 201 (Alga,
130-15-4					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
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	30 min		not specified
Methyl methacrylate 80-62-6	EC0	100 mg/l	30 min		not specified

12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Cumene hydroperoxide		no data	0 %	28 d	OECD Guideline 301 B (Ready
80-15-9					Biodegradability: CO2 Evolution
					Test)
Methyl methacrylate	readily biodegradable	aerobic	95 %	19 d	EU Method C.4-B (Determination
80-62-6					of the "Ready"
					BiodegradabilityModified OECD
					Screening Test)
1,4-Naphthalenedione		no data	0 - 60 %		OECD 301 A - F
130-15-4					

12.3. Bioaccumulative potential

Does not bioaccumulate.

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
Cumene hydroperoxide	9,1			calculation	OECD Guideline 305
80-15-9					(Bioconcentration: Flow-through
					Fish Test)

12.4. Mobility in soil

Cured adhesives are immobile.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Cumene hydroperoxide 80-15-9	2,16		not specified
Methyl methacrylate 80-62-6	1,38		not specified
1,4-Naphthalenedione 130-15-4	1,71		not specified

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Cumene hydroperoxide	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
80-15-9	Bioaccumulative (vPvB) criteria.
Methyl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
80-62-6	Bioaccumulative (vPvB) criteria.
1,4-Naphthalenedione	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
130-15-4	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

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.

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 < 3,00 % (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:

- H225 Highly flammable liquid and vapor.
- H242 Heating may cause a fire.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- 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.

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.