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

LOCTITE 511

SDS No. : 173048
V006.1
Revision: 10.10.2023
printing date: 07.03.2024
Replaces version from: 22.08.2023

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

1.1. Product identifier
LOCTITE 511

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 AG & Co. KGaA
Henkelstr. 67
40589 Düsseldorf

Germany

Phone: +49 211 797 0

SDSinfo.Adhesive@henkel.com
For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number
The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Contains 2-Ethylhexyl methacrylate

Cumene hydroperoxide
Acetic acid, 2-phenylhydrazide
maleic acid

Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]

methyl methacrylate

Signal word: Warning

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

Precautionary statement: "***" ***For consumer use only: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P501 Dispose of contents/container in accordance with national regulation.***

Precautionary statement: Prevention
P280 Wear protective gloves.
P273 Avoid release to the environment.
P261 Avoid breathing vapors.

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

2.3. Other hazards

None if used properly.

Following substances are present in a concentration ≥ the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration ≥ the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
2-Ethylhexyl methacrylate 688-84-6 211-708-6 01-2119490166-35	5- < 10 %	Skin Sens. 1B, H317 STOT SE 3, H335 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	STOT SE 3; H335; C >= 10 %	
Decan-1-ol 112-30-1 203-956-9 01-2119480407-35	5- < 10 %	Eye Irrit. 2, H319 Aquatic Chronic 3, H412	inhalation:ATE = 5,1 mg/l;dust/mist	
Cumene hydroperoxide 80-15-9 201-254-7 01-2119475796-19	1- < 2,5 %	STOT RE 2, H373 Skin Corr. 1B, H314 Acute Tox. 2, Inhalation, H330 Aquatic Chronic 2, H411 Acute Tox. 4, Oral, H302 Acute Tox. 4, Dermal, H312 Org. Perox. E, H242 STOT SE 3, H335	Eye Irrit. 2; H319; C 1 - < 3 % Skin Irrit. 2; H315; C 3 - < 10 % Eye Dam. 1; H318; C 3 - < 10 % STOT SE 3; H335; C >= 1 % Skin Corr. 1B; H314; C >= 10 % ===== dermal:ATE = 1.100 mg/kg	
Acetic acid, 2-phenylhydrazide 114-83-0 204-055-3	0,1- < 1 %	Acute Tox. 3, Oral, H301 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3, Inhalation, H335 Carc. 2, H351		
maleic acid 110-16-7 203-742-5 01-2119488705-25	0,1- < 1 %	Acute Tox. 4, Oral, H302 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317 Acute Tox. 4, Dermal, H312	Skin Sens. 1; H317; C >= 0,1 %	
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] ----- 204-613-6 01-2119978265-26	0,1- < 1 %	Aquatic Chronic 4, H413 Skin Sens. 1, H317		
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		EU OEL
1,4-Naphthalenedione 130-15-4 204-977-6	0,01- < 0,1 %	Acute Tox. 3, Oral, H301 Skin Corr. 1C, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Acute Tox. 1, Inhalation, H330 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 10 M chronic = 1	

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.
For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed
SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
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
Dispose of contaminated material as waste according to Section 13.
For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

Ensure good ventilation/extraction.
Refer to Technical Data Sheet
Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Germany

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Decan-1-ol 112-30-1	10	66	Exposure limit(s):	1 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Decan-1-ol 112-30-1			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Ethene, homopolymer 9002-88-4			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Ethene, homopolymer 9002-88-4		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Ethene, homopolymer 9002-88-4		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9		4	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5		4	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Silicon dioxide 112945-52-5		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Methyl methacrylate 80-62-6	50	210	Exposure limit(s):	2 If the AGW and BGW values	TRGS 900

				are complied with, there should be no risk of reproductive damage (see Number 2.7).	
Methyl methacrylate 80-62-6			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
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

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2-Ethylhexyl methacrylate 688-84-6	aqua (freshwater)		0,003 mg/l				
2-Ethylhexyl methacrylate 688-84-6	aqua (marine water)		0 mg/l				
2-Ethylhexyl methacrylate 688-84-6	sediment (freshwater)				2,24 mg/kg		
2-Ethylhexyl methacrylate 688-84-6	sediment (marine water)				0,224 mg/kg		
2-Ethylhexyl methacrylate 688-84-6	sewage treatment plant (STP)		10 mg/l				
2-Ethylhexyl methacrylate 688-84-6	Soil				0,446 mg/kg		
Decan-1-ol 112-30-1	aqua (freshwater)		0,021 mg/l				
Decan-1-ol 112-30-1	aqua (marine water)		0,002 mg/l				
Decan-1-ol 112-30-1	Soil				0,63 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (freshwater)		0,0031 mg/l				
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (intermittent releases)		0,031 mg/l				
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (marine water)		0,00031 mg/l				
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	sewage treatment plant (STP)		0,35 mg/l				
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	sediment (freshwater)				0,023 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	sediment (marine water)				0,0023 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	Soil				0,0029 mg/kg		
Maleic acid 110-16-7	aqua (freshwater)		0,1 mg/l				
Maleic acid 110-16-7	aqua (intermittent releases)		0,4281 mg/l				
Maleic acid 110-16-7	sediment (freshwater)				0,334 mg/kg		
Maleic acid 110-16-7	sewage treatment plant (STP)		44,6 mg/l				
Maleic acid 110-16-7	aqua (marine water)		0,01 mg/l				
Maleic acid 110-16-7	sediment (marine water)				0,0334 mg/kg		
Maleic acid 110-16-7	Soil				0,0415 mg/kg		
methyl methacrylate 80-62-6	aqua (freshwater)		0,94 mg/l				
methyl methacrylate 80-62-6	aqua (marine water)		0,94 mg/l				
methyl methacrylate 80-62-6	aqua (intermittent releases)		0,94 mg/l				
methyl methacrylate 80-62-6	sewage treatment plant (STP)		10 mg/l				
methyl methacrylate 80-62-6	sediment (freshwater)				5,74 mg/kg		
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
2-Ethylhexyl methacrylate 688-84-6	worker	dermal	Long term exposure - systemic effects		5 mg/kg	
Decan-1-ol 112-30-1	Workers	inhalation	Long term exposure - systemic effects		176 mg/m3	
Decan-1-ol 112-30-1	Workers	inhalation	Long term exposure - local effects		129 mg/m3	
Decan-1-ol 112-30-1	Workers	dermal	Long term exposure - systemic effects		250 mg/kg	
Decan-1-ol 112-30-1	Workers	dermal	Long term exposure - local effects		0,19 mg/cm2 190 µg/cm2	
Decan-1-ol 112-30-1	General population	inhalation	Long term exposure - systemic effects		43,5 mg/m3	
Decan-1-ol 112-30-1	General population	dermal	Long term exposure - systemic effects		125 mg/kg	
Decan-1-ol 112-30-1	General population	dermal	Long term exposure - local effects		0,067 mg/cm2 67 µg/cm2	
Decan-1-ol 112-30-1	General population	oral	Long term exposure - systemic effects		12,5 mg/kg	
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	Workers	inhalation	Long term exposure - systemic effects		6 mg/m3	
Maleic acid 110-16-7	Workers	dermal	Acute/short term exposure - local effects			
Maleic acid 110-16-7	Workers	dermal	Long term exposure - local effects			
Maleic acid 110-16-7	Workers	dermal	Acute/short term exposure - systemic effects			
Maleic acid 110-16-7	Workers	dermal	Long term exposure - systemic effects			
Maleic acid 110-16-7	Workers	inhalation	Acute/short term exposure - local effects		3 mg/m3	
Maleic acid 110-16-7	Workers	inhalation	Long term exposure - systemic effects		3 mg/m3	
Maleic acid 110-16-7	Workers	inhalation	Long term exposure - local effects		3 mg/m3	
Maleic acid 110-16-7	Workers	inhalation	Acute/short term exposure - systemic effects		3 mg/m3	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	Workers	inhalation	Long term exposure - systemic effects		35,24 mg/m3	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	Workers	inhalation	Acute/short term exposure - systemic effects		35,24 mg/m3	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	Workers	inhalation	Long term exposure - local effects		3,35 mg/m3	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	Workers	inhalation	Acute/short term exposure - local effects		3,35 mg/m3	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	General population	inhalation	Long term exposure - systemic effects		8,69 mg/m3	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)	General population	inhalation	Acute/short term exposure -		8,69 mg/m3	

-----			systemic effects			
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	General population	inhalation	Long term exposure - local effects		0,83 mg/m3	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	General population	inhalation	Acute/short term exposure - local effects		0,83 mg/m3	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	General population	oral	Long term exposure - systemic effects		5 mg/kg	
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) -----	General population	oral	Acute/short term exposure - systemic effects		5 mg/kg	
methyl methacrylate 80-62-6	Workers	Inhalation	Long term exposure - systemic effects		348,4 mg/m3	
methyl methacrylate 80-62-6	Workers	Inhalation	Long term exposure - local effects		208 mg/m3	
methyl methacrylate 80-62-6	Workers	inhalation	Acute/short term exposure - local effects		416 mg/m3	
methyl methacrylate 80-62-6	Workers	dermal	Long term exposure - systemic effects		13,67 mg/kg	
methyl methacrylate 80-62-6	Workers	dermal	Long term exposure - local effects		1,5 mg/cm2	
methyl methacrylate 80-62-6	Workers	dermal	Acute/short term exposure - local effects		1,5 mg/cm2	
methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - systemic effects		74,3 mg/m3	
methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - local effects		104 mg/m3	
methyl methacrylate 80-62-6	General population	inhalation	Acute/short term exposure - local effects		208 mg/m3	
methyl methacrylate 80-62-6	General population	dermal	Long term exposure - systemic effects		8,2 mg/kg	
methyl methacrylate 80-62-6	General population	dermal	Long term exposure - local effects		1,5 mg/cm2	
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	oral	Long term exposure - systemic effects			

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

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

Delivery form	paste
Colour	white
Odor	mild, Acrylic
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	< -30 °C (< -22 °F)
Initial boiling point	> 150 °C (> 302 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, The product is not flammable.
Flash point	> 100 °C (> 212 °F)
Auto-ignition temperature	Not applicable, The product is not flammable.
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	Not applicable, Product is non-polar/aprotic.
Viscosity (kinematic) (40 °C (104 °F);)	> 20,5 mm2/s
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Slight
Partition coefficient: n-octanol/water	Not applicable Mixture
Vapour pressure (20 °C (68 °F))	< 0,13 mbar
Density (20 °C (68 °F))	1,05 g/cm3 None
Relative vapour density: (20 °C)	> 1
Particle characteristics	Not applicable Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts with strong oxidants.
Acids.
Reducing agents.
Strong bases.

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 hazard classes as defined in Regulation (EC) No 1272/2008

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
2-Ethylhexyl methacrylate 688-84-6	LD0	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2-Ethylhexyl methacrylate 688-84-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Decan-1-ol 112-30-1	LD50	> 5.000 mg/kg	rat	EPA OPPTS 870.1100 (Acute Oral Toxicity)
Cumene hydroperoxide 80-15-9	LD50	382 mg/kg	rat	other guideline:
Acetic acid, 2-phenylhydrazide 114-83-0	LD50	270 mg/kg	rat	not specified
maleic acid 110-16-7	LD50	708 mg/kg	rat	not specified
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
methyl methacrylate 80-62-6	LD50	9.400 mg/kg	rat	not specified
1,4-Naphthalenedione 130-15-4	LD50	124 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)

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
2-Ethylhexyl methacrylate 688-84-6	LD50	> 20.000 mg/kg	rat	not specified
Decan-1-ol 112-30-1	LD50	> 5.000 mg/kg	rat	EPA OPPTS 870.1200 (Acute Dermal Toxicity)
Cumene hydroperoxide 80-15-9	Acute toxicity estimate (ATE)	1.100 mg/kg		Expert judgement
maleic acid 110-16-7	LD50	1.560 mg/kg	rabbit	not specified
methyl methacrylate 80-62-6	LD50	> 5.000 mg/kg	rabbit	equivalent or similar to 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
Decan-1-ol 112-30-1	Acute toxicity estimate (ATE)	5,1 mg/l	dust/mist			Expert judgement
Decan-1-ol 112-30-1	LC50	4 mg/l		2 h	mouse	
Cumene hydroperoxide 80-15-9	LC50	1,370 mg/l	vapour	4 h	rat	not specified
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	LC50	> 5,05 mg/l	dust/mist	4 h	rat	OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class (ATC) Method)
methyl methacrylate 80-62-6	LC50	29,8 mg/l	vapour	4 h	rat	not specified
1,4-Naphthalenedione 130-15-4	LC50	0,046 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
Decan-1-ol 112-30-1	not irritating	4 h	rabbit	EPA OPPTS 870.2500 (Acute Dermal Irritation)
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
maleic acid 110-16-7	irritating	24 h	human	Patch Test
1,4-Naphthalenedione 130-15-4	Category 1C (corrosive)		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

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
Decan-1-ol 112-30-1	irritating		rabbit	EPA OPPTS 870.2400 (Acute Eye Irritation)
maleic acid 110-16-7	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

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
2-Ethylhexyl methacrylate 688-84-6	sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method
Decan-1-ol 112-30-1	not sensitising	Buehler test	guinea pig	EPA OPPTS 870.2600 (Skin Sensitisation)
maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
methyl methacrylate 80-62-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
1,4-Naphthalenedione 130-15-4	sensitising	not specified	guinea pig	not specified

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
2-Ethylhexyl methacrylate 688-84-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Decan-1-ol 112-30-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Henkel Method
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
maleic acid 110-16-7	negative	bacterial reverse mutation assay (e.g Ames test)	no data		Ames Test
maleic acid 110-16-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
methyl methacrylate 80-62-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified

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
maleic acid 110-16-7	not carcinogenic	oral: feed	2 y daily	rat	male/female	OECD Guideline 451 (Carcinogenicity Studies)

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
maleic acid 110-16-7	NOAEL F1 150 mg/kg NOAEL F2 55 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
Decan-1-ol 112-30-1	NOAEL 1.000 mg/kg	dermal	6 hours 5d/w over 13 consecutive weeks	rat	OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d 5 d/w	rat	not specified
maleic acid 110-16-7	NOAEL >= 40 mg/kg	oral: feed	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
methyl methacrylate 80-62-6	LOAEL 2000 ppm	inhalation	14 weeks 6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study
methyl methacrylate 80-62-6	NOAEL 1000 ppm	inhalation	14 weeks 6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

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.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-Ethylhexyl methacrylate 688-84-6	LC50	2,78 mg/l	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
Decan-1-ol 112-30-1	LC50	2,2 - 2,5 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Decan-1-ol 112-30-1	NOEC	0,26 mg/l	33 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage toxicity test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
maleic acid 110-16-7	LC50	> 245 mg/l	48 h	Leuciscus idus	DIN 38412-15
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	LL50	Toxicity > Water solubility	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	NOELR	Toxicity > Water solubility	32 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage toxicity test)
methyl methacrylate 80-62-6	LC50	350 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,4-Naphthalenedione 130-15-4	LC50	0,045 mg/l	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-Ethylhexyl methacrylate 688-84-6	EC50	4,56 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Decan-1-ol 112-30-1	EC50	2,9 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	EC50	18,84 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
maleic acid 110-16-7	EC50	42,81 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	EL50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
methyl methacrylate	EC50	69 mg/l	48 h	Daphnia magna	EPA OTS 797.1300

80-62-6					(Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
1,4-Naphthalenedione 130-15-4	EC50	0,026 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances **CAS-No.**	**Value type**	**Value**	**Exposure time**	**Species**	**Method**
2-Ethylhexyl methacrylate 688-84-6	NOEC	0,105 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Decan-1-ol 112-30-1	NOEC	0,11 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
maleic acid 110-16-7	NOEC	10 mg/l	21 d	Daphnia magna	other guideline:
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	NOEC	Toxicity > Water solubility	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
methyl methacrylate 80-62-6	NOEC	37 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-Ethylhexyl methacrylate 688-84-6	EC50	7,68 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Ethylhexyl methacrylate 688-84-6	NOEC	0,28 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Decan-1-ol 112-30-1	EC50	1,5 mg/l	72 h	Desmodesmus subspicatus	QSAR (Quantitative Structure Activity Relationship)
Decan-1-ol 112-30-1	EC10	0,7 mg/l	72 h	Desmodesmus subspicatus	QSAR (Quantitative Structure Activity Relationship)
Cumene hydroperoxide 80-15-9	EC50	3,1 mg/l	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene hydroperoxide 80-15-9	NOEC	1 mg/l	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic acid 110-16-7	EC50	74,35 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic acid 110-16-7	EC10	11,8 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	EC50	170 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	NOEC	100 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,4-Naphthalenedione 130-15-4	NOEC	0,07 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,4-Naphthalenedione 130-15-4	EC50	0,42 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Decan-1-ol 112-30-1	EC0	10.000 mg/l	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	30 min	not specified	not specified
maleic acid 110-16-7	EC10	44,6 mg/l	18 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
methyl methacrylate 80-62-6	EC20	> 150 - 200 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
1,4-Naphthalenedione 130-15-4	EC50	5,94 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
2-Ethylhexyl methacrylate 688-84-6	readily biodegradable	aerobic	88 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Decan-1-ol 112-30-1	readily biodegradable	aerobic	88 %	30 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Cumene hydroperoxide 80-15-9	not readily biodegradable.	aerobic	3 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
maleic acid 110-16-7	readily biodegradable	aerobic	97,08 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	not readily biodegradable.	aerobic	22 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	not inherently biodegradable	aerobic	37 %	60 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
methyl methacrylate 80-62-6	readily biodegradable	aerobic	94 %	14 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
1,4-Naphthalenedione 130-15-4	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
2-Ethylhexyl methacrylate 688-84-6	37	56 h	24 °C	Danio rerio	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Decan-1-ol 112-30-1	20			calculated	QSAR (Quantitative Structure Activity Relationship)
Cumene hydroperoxide 80-15-9	9,1			calculation	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
2-Ethylhexyl methacrylate 688-84-6	4,95	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Decan-1-ol 112-30-1	4,5	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Cumene hydroperoxide 80-15-9	1,6	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Acetic acid, 2-phenylhydrazide 114-83-0	0,74		not specified
maleic acid 110-16-7	-1,3	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -----	5,86		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
methyl methacrylate 80-62-6	1,38	20 °C	other guideline:
1,4-Naphthalenedione 130-15-4	1,71		not specified

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
2-Ethylhexyl methacrylate 688-84-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Decan-1-ol 112-30-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Cumene hydroperoxide 80-15-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
maleic acid 110-16-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
methyl methacrylate 80-62-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
1,4-Naphthalenedione 130-15-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. 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.

SECTION 14: Transport information

14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EC)	< 3 %

15.2. Chemical safety assessment
A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK:	WGK 1: slightly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)
Storage class according to TRGS 510:	10

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 vapour.
H242 Heating may cause a fire.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

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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