



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

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LOCTITE SF 7200 400ML

SDS No. : 173071
V009.1

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

1.1. Product identifier

LOCTITE SF 7200 400ML

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Solvent based cleaner

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000

Fax-no.: +44 1442 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Flammable aerosols

Category 1

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

Skin irritation

Category 2

H315 Causes skin irritation.

Serious eye irritation

Category 2

H319 Causes serious eye irritation.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word:	Danger
Hazard statement:	H222 Extremely flammable aerosol. H229 Pressurized container: May burst if heated. H315 Causes skin irritation. H319 Causes serious eye irritation.
Precautionary statement:	P251 Do not pierce or burn, even after use. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P211 Do not spray on an open flame or other ignition source. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P102 Keep out of reach of children. "***" ***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: Response	P302+P352 IF ON SKIN: Wash with plenty of soap and water. P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****General chemical description:**

Cleaner

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Methylal 109-87-5	203-714-2 01-2119664781-31	50- < 75 %	Flam. Liq. 2 H225
Propane 74-98-6	200-827-9 01-2119486944-21	10- < 25 %	Flam. Gas 1 H220 Press. Gas H280
1,3-Dioxolane 646-06-0	211-463-5 01-2119490744-29	10- < 25 %	Flam. Liq. 2 H225 Eye Irrit. 2 H319
Propan-2-ol 67-63-0	200-661-7 01-2119457558-25	2,5- < 10 %	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336
Ethanol 64-17-5	200-578-6 01-2119457610-43	2,5- < 10 %	Eye Irrit. 2 H319 Flam. Liq. 2 H225
Butane, n- (< 0.1 % butadiene) 106-97-8	203-448-7 01-2119474691-32	1- < 2,5 %	Flam. Gas 1 H220 Press. Gas H280
Butanone 78-93-3	201-159-0 01-2119457290-43	1- < 2,5 %	STOT SE 3 H336 Eye Irrit. 2 H319 Flam. Liq. 2 H225
2-aminoethanol 141-43-5	205-483-3 01-2119486455-28	1- < 2,5 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Eye Dam. 1 H318 Skin Corr. 1B H314 Acute Tox. 4; Inhalation H332 STOT SE 3 H335 Aquatic Chronic 3 H412

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 Detergent Regulation 648/2004/EC

15 - 30 % aliphatic hydrocarbons
< 5 % non-ionic surfactants

SECTION 4: First aid measures**4.1. Description of first aid measures**

Inhalation:
Move to fresh air.
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 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.

SKIN: Redness, inflammation.

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.

Alcohol-resistant foam.

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 (NO_x) can be released.

Do not expose to direct heat.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

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

Remove sources of ignition.

Ensure adequate ventilation.

Avoid contact with skin and eyes.

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

Wipe up using absorbent material.

Store in a partly filled, closed container until disposal.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.

Keep away from sources of ignition - no smoking.

Vapours should be extracted to avoid inhalation.

See advice in section 8

Hygiene measures:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry place.

Do not store near sources of heat or ignition, or reactive materials.

Refer to Technical Data Sheet

7.3. Specific end use(s)

Solvent based cleaner

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
Dimethoxymethane 109-87-5 [DIMETHOXYMETHANE]	1.250	3.950	Short Term Exposure Limit (STEL):		EH40 WEL
Dimethoxymethane 109-87-5 [DIMETHOXYMETHANE]	1.000	3.160	Time Weighted Average (TWA):		EH40 WEL
Propan-2-ol 67-63-0 [PROPAN-2-OL]	500	1.250	Short Term Exposure Limit (STEL):		EH40 WEL
Propan-2-ol 67-63-0 [PROPAN-2-OL]	400	999	Time Weighted Average (TWA):		EH40 WEL
Ethanol 64-17-5 [ETHANOL]	1.000	1.920	Time Weighted Average (TWA):		EH40 WEL
Butane 106-97-8 [BUTANE]	750	1.810	Short Term Exposure Limit (STEL):		EH40 WEL
Butane 106-97-8 [BUTANE]	600	1.450	Time Weighted Average (TWA):		EH40 WEL
Butanone 78-93-3 [BUTAN-2-ONE (METHYL ETHYL KETONE)]	300	899	Short Term Exposure Limit (STEL):		EH40 WEL
Butanone 78-93-3 [BUTAN-2-ONE (METHYL ETHYL KETONE)]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Butanone 78-93-3 [BUTAN-2-ONE (METHYL ETHYL KETONE)]	200	600	Time Weighted Average (TWA):		EH40 WEL
Butanone 78-93-3 [BUTANONE]	200	600	Time Weighted Average (TWA):	Indicative	ECTLV
Butanone 78-93-3 [BUTANONE]	300	900	Short Term Exposure Limit (STEL):	Indicative	ECTLV
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	1	2,5	Time Weighted Average (TWA):		EH40 WEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	3	7,6	Short Term Exposure Limit (STEL):		EH40 WEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	3	7,6	Short Term Exposure Limit (STEL):	Indicative	ECTLV
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	1	2,5	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
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Dimethoxymethane 109-87-5 [METHYLAL]	1.000	3.100	Time Weighted Average (TWA):		IR_OEL
1,3-Dioxolane 646-06-0 [1,3-DIOXOLANE]	20		Time Weighted Average (TWA):		IR_OEL
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]	200		Time Weighted Average (TWA):		IR_OEL
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]	400		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Ethanol 64-17-5 [ETHANOL]	1.000		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Butane 106-97-8 [BUTANE]	1.000		Time Weighted Average (TWA):		IR_OEL
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK)]	200	600	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK)]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Butanone 78-93-3 [BUTANONE]	200	600	Time Weighted Average (TWA):	Indicative	ECLTV
Butanone 78-93-3 [BUTANONE]	300	900	Short Term Exposure Limit (STEL):	Indicative	ECLTV
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK)]	300	900	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	1	2,5	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	3	7,6	Short Term Exposure Limit (STEL):	Indicative	ECLTV
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	1	2,5	Time Weighted Average (TWA):	Indicative	ECLTV
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]			Skin designation:	Can be absorbed through the skin.	IR_OEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	3	7,6	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Dimethoxymethane 109-87-5	aqua (freshwater)		14,577 mg/l				
Dimethoxymethane 109-87-5	aqua (marine water)		1,4577 mg/l				
Dimethoxymethane 109-87-5	sediment (freshwater)				13,135 mg/kg		
Dimethoxymethane 109-87-5	sediment (marine water)				1,3135 mg/kg		
Dimethoxymethane 109-87-5	Soil				4,6538 mg/kg		
Dimethoxymethane 109-87-5	Sewage treatment plant		10000 mg/l				
1,3-Dioxolane 646-06-0	aqua (freshwater)		19,7 mg/l				
1,3-Dioxolane 646-06-0	aqua (marine water)		1,97 mg/l				
1,3-Dioxolane 646-06-0	aqua (intermittent releases)		0,95 mg/l				
1,3-Dioxolane 646-06-0	sediment (freshwater)				77,7 mg/kg		
1,3-Dioxolane 646-06-0	sediment (marine water)				7,77 mg/kg		
1,3-Dioxolane 646-06-0	Soil				2,62 mg/kg		
1,3-Dioxolane 646-06-0	Sewage treatment plant		1 mg/l				
Propan-2-ol 67-63-0	aqua (freshwater)		140,9 mg/l				
Propan-2-ol 67-63-0	aqua (marine water)		140,9 mg/l				
Propan-2-ol 67-63-0	sediment (freshwater)				552 mg/kg		
Propan-2-ol 67-63-0	sediment (marine water)				552 mg/kg		
Propan-2-ol 67-63-0	Soil				28 mg/kg		
Propan-2-ol 67-63-0	aqua (intermittent releases)		140,9 mg/l				
Propan-2-ol 67-63-0	sewage treatment plant (STP)		2251 mg/l				
Propan-2-ol 67-63-0	oral				160 mg/kg		
Ethanol 64-17-5	aqua (freshwater)		0,96 mg/l				
Ethanol 64-17-5	aqua (marine water)		0,79 mg/l				
Ethanol 64-17-5	aqua (intermittent releases)		2,75 mg/l				
Ethanol 64-17-5	sewage treatment plant (STP)		580 mg/l				
Ethanol 64-17-5	sediment (freshwater)				3,6 mg/kg		
Ethanol 64-17-5	sediment (marine water)				2,9 mg/kg		
Ethanol 64-17-5	Soil				0,63 mg/kg		
Ethanol 64-17-5	oral				380 mg/kg		
Butanone 78-93-3	aqua (freshwater)		55,8 mg/l				
Butanone 78-93-3	aqua (marine water)		55,8 mg/l				
Butanone 78-93-3	aqua (intermittent		55,8 mg/l				

	releases)						
Butanone 78-93-3	sewage treatment plant (STP)		709 mg/l				
Butanone 78-93-3	sediment (freshwater)				284,74 mg/kg		
Butanone 78-93-3	sediment (marine water)				284,7 mg/kg		
Butanone 78-93-3	Soil				22,5 mg/kg		
Butanone 78-93-3	oral				1000 mg/kg		
2-Aminoethanol 141-43-5	aqua (freshwater)		0,085 mg/l				
2-Aminoethanol 141-43-5	aqua (marine water)		0,0085 mg/l				
2-Aminoethanol 141-43-5	aqua (intermittent releases)		0,028 mg/l				
2-Aminoethanol 141-43-5	sediment (freshwater)				0,434 mg/kg		
2-Aminoethanol 141-43-5	sediment (marine water)				0,0434 mg/kg		
2-Aminoethanol 141-43-5	Soil				0,037 mg/kg		
2-Aminoethanol 141-43-5	sewage treatment plant (STP)		100 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Dimethoxymethane 109-87-5	Workers	dermal	Long term exposure - systemic effects		17,9 mg/kg	
Dimethoxymethane 109-87-5	Workers	inhalation	Long term exposure - systemic effects		126,6 mg/m3	
Dimethoxymethane 109-87-5	General population	oral	Long term exposure - systemic effects		18,1 mg/kg	
Dimethoxymethane 109-87-5	General population	inhalation	Long term exposure - systemic effects		31,5 mg/m3	
Dimethoxymethane 109-87-5	General population	dermal	Long term exposure - systemic effects		18,1 mg/kg	
1,3-Dioxolane 646-06-0	Workers	dermal	Long term exposure - systemic effects		1,18 mg/kg	
1,3-Dioxolane 646-06-0	Workers	inhalation	Long term exposure - systemic effects		3,306 mg/m3	
Propan-2-ol 67-63-0	Workers	dermal	Long term exposure - systemic effects		888 mg/kg	
Propan-2-ol 67-63-0	Workers	inhalation	Long term exposure - systemic effects		500 mg/m3	
Propan-2-ol 67-63-0	General population	dermal	Long term exposure - systemic effects		319 mg/kg	
Propan-2-ol 67-63-0	General population	inhalation	Long term exposure - systemic effects		89 mg/m3	
Propan-2-ol 67-63-0	General population	oral	Long term exposure - systemic effects		26 mg/kg	
Ethanol 64-17-5	Workers	dermal	Long term exposure - systemic effects		343 mg/kg	
Ethanol 64-17-5	Workers	inhalation	Long term exposure - systemic effects		950 mg/m3	
Ethanol 64-17-5	General population	dermal	Long term exposure - systemic effects		206 mg/kg	
Ethanol 64-17-5	General population	inhalation	Long term exposure - systemic effects		114 mg/m3	
Ethanol 64-17-5	General population	oral	Long term exposure - systemic effects		87 mg/kg	
Butanone 78-93-3	Workers	dermal	Long term exposure - systemic effects		1161 mg/kg	
Butanone 78-93-3	Workers	inhalation	Long term exposure - systemic effects		600 mg/m3	
Butanone 78-93-3	General population	dermal	Long term exposure - systemic effects		412 mg/kg	
Butanone 78-93-3	General population	inhalation	Long term exposure - systemic effects		106 mg/m3	
Butanone 78-93-3	General population	oral	Long term exposure - systemic effects		31 mg/kg	
2-Aminoethanol 141-43-5	Workers	inhalation	Long term exposure - systemic effects		1 mg/m3	
2-Aminoethanol 141-43-5	Workers	inhalation	Long term exposure - local		0,51 mg/m3	

			effects			
2-Aminoethanol 141-43-5	Workers	dermal	Long term exposure - systemic effects		3 mg/kg	
2-Aminoethanol 141-43-5	General population	dermal	Long term exposure - systemic effects		1,5 mg/kg	
2-Aminoethanol 141-43-5	General population	oral	Long term exposure - systemic effects		1,5 mg/kg	
2-Aminoethanol 141-43-5	General population	inhalation	Long term exposure - systemic effects		0,18 mg/m3	
2-Aminoethanol 141-43-5	General population	inhalation	Long term exposure - local effects		0,28 mg/m3	

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Butanone 78-93-3 [BUTAN-2-ONE]	Butan-2-one	Urine	Sampling time: End of shift.		UKEH40BMG V		

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
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
Filtertype: AX
Filter type: P2

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	aerosol Amber
Odor	Alcoholic
Odour threshold	No data available / Not applicable
pH ()	10,6 - 11,0
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	-44,5 °C (-48.1 °F)
Flash point	-97 °C (-142.6 °F)
Evaporation rate	Not available.
Flammability	No data available / Not applicable
Explosive limits	
lower	0,70 %(V)
upper	19,90 %(V)
Vapour pressure (20 °C (68 °F))	4 hPa
Relative vapour density:	No data available / Not applicable
Density (20 °C (68 °F))	0,79 g/cm ³
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Not miscible
Solubility (qualitative) (Solvent: Acetone)	Miscible
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

Ignition temperature	235 °C (455 °F)
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SECTION 10: Stability and reactivity

10.1. Reactivity

Strong oxidizing agents.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

Heat, flames, sparks and other sources of ignition.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None if used for intended purpose.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Methylal 109-87-5	LD50	6.423 mg/kg	rat	not specified
1,3-Dioxolane 646-06-0	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Propan-2-ol 67-63-0	LD50	5.840 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Ethanol 64-17-5	LD50	10.470 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Butanone 78-93-3	LD50	2.737 mg/kg	rat	not specified
2-aminoethanol 141-43-5	LD50	1.515 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
Methylal 109-87-5	LD50	> 5.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
1,3-Dioxolane 646-06-0	LD50	> 2.000 mg/kg	rabbit	not specified
Propan-2-ol 67-63-0	LD50	12.870 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Ethanol 64-17-5	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Butanone 78-93-3	LD50	> 6.400 mg/kg	rabbit	not specified
2-aminoethanol 141-43-5	LD50	1.025 mg/kg	rabbit	not specified

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
Methylal 109-87-5	LC50	15.000 mg/l	vapour	4 h	rat	not specified
Propane 74-98-6	LC50	> 800000 ppm	gas	15 min	rat	not specified
Propan-2-ol 67-63-0	LC50	72,6 mg/l		4 h	rat	not specified
Ethanol 64-17-5	LC50	124,7 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Butane, n- (< 0.1 % butadiene) 106-97-8	LC50	274200 ppm	gas	4 h	rat	not specified
Butanone 78-93-3	LC50	> 20 mg/l	vapour	4 h	rat	not specified
2-aminoethanol 141-43-5	Acute toxicity estimate (ATE)	1,5 mg/l	dust/mist			Expert judgement
2-aminoethanol 141-43-5	LC50	1 - 5 mg/l		4 h	rat	not specified

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
Propan-2-ol 67-63-0	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Ethanol 64-17-5	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Butanone 78-93-3	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-aminoethanol 141-43-5	corrosive	4 h	rabbit	equivalent or similar to 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
Propan-2-ol 67-63-0	Category II		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Ethanol 64-17-5	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Butanone 78-93-3	irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-aminoethanol 141-43-5	corrosive		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
Propan-2-ol 67-63-0	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Ethanol 64-17-5	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Ethanol 64-17-5	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Butanone 78-93-3	not sensitising	Buehler test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
2-aminoethanol 141-43-5	not sensitising	Guinea pig maximisation test	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
Propane 74-98-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Propane 74-98-6	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Propan-2-ol 67-63-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Propan-2-ol 67-63-0	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Ethanol 64-17-5	negative	bacterial reverse mutation assay (e.g Ames test)			OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ethanol 64-17-5	negative	in vitro mammalian chromosome aberration test	without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Ethanol 64-17-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Butane, n- (< 0.1 % butadiene) 106-97-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Butane, n- (< 0.1 % butadiene) 106-97-8	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Butanone 78-93-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Butanone 78-93-3	negative	in vitro mammalian chromosome aberration test	not applicable		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Butanone 78-93-3	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-aminoethanol 141-43-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-aminoethanol 141-43-5	negative	in vitro mammalian chromosome aberration test	without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-aminoethanol 141-43-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Propane 74-98-6	negative			Drosophila melanogaster	not specified
Propane 74-98-6	negative	inhalation: gas		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Propan-2-ol 67-63-0	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Ethanol 64-17-5	negative				OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Butane, n- (< 0.1 % butadiene) 106-97-8	negative			Drosophila melanogaster	not specified
Butane, n- (< 0.1 % butadiene) 106-97-8	negative	inhalation: gas		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Butanone	negative	intraperitoneal		mouse	equivalent or similar to OECD

78-93-3					Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2-aminoethanol 141-43-5	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

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
Propan-2-ol 67-63-0		inhalation: vapour	104 w 6 h/d, 5 d/w	rat	male/female	OECD Guideline 451 (Carcinogenicity Studies)
Ethanol 64-17-5	not carcinogenic					Expert judgement

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
Propane 74-98-6	NOAEL P 21,6 mg/l NOAEL F1 21,6 mg/l	screening	inhalation: gas	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Propan-2-ol 67-63-0	NOAEL P 853 mg/kg	One generation study	oral: drinking water	rat	equivalent or similar to OECD Guideline 415 (One-Generation Reproduction Toxicity Study)
Propan-2-ol 67-63-0	NOAEL P 500 mg/kg NOAEL F1 1.000 mg/kg	Two generation study	oral: gavage	rat	equivalent or similar to OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Ethanol 64-17-5	NOAEL P 13.800 mg/kg	Two generation study	oral: unspecified	mouse	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Butane, n- (< 0.1 % butadiene) 106-97-8	NOAEL P 21,4 mg/l NOAEL F1 21,4 mg/l	screening	inhalation: gas	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Butanone 78-93-3	NOAEL P 10.000 mg/l NOAEL F1 10.000 mg/l	two-generation study	oral: drinking water	rat	equivalent or similar to OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
2-aminoethanol 141-43-5	NOAEL P 300 mg/kg NOAEL F1 1.000 mg/kg NOAEL F2 1.000 mg/kg	Two generation study	oral: feed	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
Propane 74-98-6		inhalation: gas	28 d 6 h/d, 7 d/w	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Propan-2-ol 67-63-0		inhalation: vapour	at least 104 w 6 h/d, 5 d/w	rat	OECD Guideline 451 (Carcinogenicity Studies)
Butane, n- (<0.1 % butadiene) 106-97-8		inhalation: gas	28 d	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Butanone 78-93-3	NOAEL 2500 ppm	inhalation	90 days 6 hours/day, 5 days/week	rat	not specified
2-aminoethanol 141-43-5	NOAEL 300 mg/kg	oral: feed	> 75 d daily	rat	other guideline:

Aspiration hazard:

The mixture is classified based on Viscosity data.

Hazardous substances CAS-No.	Viscosity (kinematic) Value	Temperature	Method	Remarks
Butanone 78-93-3	0,51 mm ² /s	20 °C	ASTM Standard D7042	

SECTION 12: Ecological information

General ecological information:

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

12.1. Toxicity

Toxicity (Fish):

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Methylal 109-87-5	LC50	6.990 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,3-Dioxolane 646-06-0	LC50	> 95,4 mg/l	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Propan-2-ol 67-63-0	LC50	> 9.640 - 10.000 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethanol 64-17-5	LC50	14.200 mg/l	96 h	Pimephales promelas	EPA-660 (Methods for Acute Toxicity Tests with Fish, Macroinvertebrates and Amphibians)
Ethanol 64-17-5	NOEC	250 mg/l	120 h	Danio rerio	OECD Guideline 212 (Fish, Short-term Toxicity Test on Embryo and Sac-Fry Stages)
Butane, n- (< 0.1 % butadiene) 106-97-8	LC50	27,98 mg/l	96 h		not specified
Butanone 78-93-3	LC50	3.220 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-aminoethanol 141-43-5	LC50	> 250 mg/l	48 h	Leuciscus idus	DIN 38412-15
2-aminoethanol 141-43-5	NOEC	1,24 mg/l	41 d	Oryzias latipes	OECD Guideline 210 (fish early lite stage toxicity test)

Toxicity (Daphnia):

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Methylal 109-87-5	EC50	> 500 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1,3-Dioxolane 646-06-0	EC50	> 772 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethanol 64-17-5	EC50	5.012 mg/l	48 h	Ceriodaphnia dubia	other guideline:
Butane, n- (< 0.1 % butadiene) 106-97-8	EC50	14,22 mg/l	48 h		not specified
Butanone 78-93-3	EC50	5.091 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-aminoethanol 141-43-5	EC50	85 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Propan-2-ol 67-63-0	NOEC	30 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Ethanol 64-17-5	NOEC	9,6 mg/l	9 d	Daphnia magna	not specified
2-aminoethanol 141-43-5	NOEC	0,85 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.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Methylal 109-87-5	EC10	> 500 mg/l	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,3-Dioxolane 646-06-0	NOEC	877 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,3-Dioxolane 646-06-0	ErC50	> 877 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propan-2-ol 67-63-0	EC50	> 1.000 mg/l	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propan-2-ol 67-63-0	NOEC	1.000 mg/l	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanol 64-17-5	EC50	275 mg/l	72 h	Chlorella vulgaris	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanol 64-17-5	EC10	11,5 mg/l	72 h	Chlorella vulgaris	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butane, n- (< 0.1 % butadiene) 106-97-8	EC50	7,71 mg/l	96 h		not specified
Butanone 78-93-3	EC50	> 1.000 mg/l			OECD Guideline 201 (Alga, Growth Inhibition Test)
2-aminoethanol 141-43-5	EC50	2,5 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-aminoethanol 141-43-5	NOEC	1 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Methylal 109-87-5	EC10	3.000 mg/l	17 h		DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
Propan-2-ol 67-63-0	EC50	> 1.000 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Ethanol 64-17-5	IC50	> 1.000 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Butanone 78-93-3	EC 50	> 1.000 mg/l			OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-aminoethanol 141-43-5	EC 50	> 1.000 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

No data available.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Methylal 109-87-5			88 %	30 d	OECD 301 A - F
1,3-Dioxolane 646-06-0		aerobic	20 %		OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Propan-2-ol 67-63-0	readily biodegradable	aerobic	70 - 84 %	30 d	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)
Ethanol 64-17-5	readily biodegradable	aerobic	80 - 85 %	30 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Butanone 78-93-3	readily biodegradable	aerobic	> 60 %		OECD 301 A - F
2-aminoethanol 141-43-5	readily biodegradable	aerobic	> 80 %	19 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential

Does not bioaccumulate.

No substance data available.

12.4. Mobility in soil

The product evaporates readily.

Hazardous substances CAS-No.	LogPow	Temperature	Method
1,3-Dioxolane 646-06-0	-0,35		not specified
Propan-2-ol 67-63-0	0,05		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Ethanol 64-17-5	-0,35	24 °C	not specified
Butanone 78-93-3	0,29		not specified
2-aminoethanol 141-43-5	-1,91	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Methylal 109-87-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Propane 74-98-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
1,3-Dioxolane 646-06-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Propan-2-ol 67-63-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Ethanol 64-17-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Butane, n- (< 0.1 % butadiene) 106-97-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Butanone 78-93-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-aminoethanol 141-43-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Collection and delivery to recycling enterprise or other registered elimination institution.

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

14 06 03 - other solvents and solvent mixtures

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**

ADR	1950
RID	1950
ADN	1950
IMDG	1950
IATA	1950

14.2. UN proper shipping name

ADR	AEROSOLS
RID	AEROSOLS
ADN	AEROSOLS
IMDG	AEROSOLS
IATA	Aerosols, flammable

14.3. Transport hazard class(es)

ADR	2.1
RID	2.1
ADN	2.1
IMDG	2.1
IATA	2.1

14.4. Packing group

ADR
RID
ADN
IMDG
IATA

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
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	Tunnelcode: (D)
RID	not applicable
ADN	not applicable
IMDG	IMDG-Code: Segregation group 18- Alkalis
IATA	not applicable

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 92,09 %
(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:

H220 Extremely flammable gas.
H225 Highly flammable liquid and vapor.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Further information:

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