



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

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LOCTITE SF 7023 known as Loctite 7023 400ml A.Sol EPIG

SDS No. : 248460
V007.0

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

1.1. Product identifier

LOCTITE SF 7023 known as Loctite 7023 400ml A.Sol EPIG

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
Adhesives
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

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.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central nervous system	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Specific target organ toxicity - repeated exposure	Category 2
H373 May cause damage to organs through prolonged or repeated exposure.	
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**

Reaction mass of ethylbenzene and xylene

Propan-2-ol
Butanone

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

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.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H412 Harmful to aquatic life with long lasting effects.

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:
Prevention**

P261 Avoid breathing vapors.
 P273 Avoid release to the environment.

**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

The aerosol container is under pressure. Do not expose to high temperatures.
 Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
 None if used properly.

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

General chemical description:
 Solvent cleaner

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Reaction mass of ethylbenzene and xylene	905-588-0 01-2119486136-34 01-2119488216-32 01-2119539452-40	25- < 50 %	Flam. Liq. 3 H226 Asp. Tox. 1 H304 Acute Tox. 4; Dermal H312 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Acute Tox. 4; Inhalation H332 STOT SE 3 H335 STOT RE 2 H373
Butanone 78-93-3	201-159-0 01-2119457290-43	10- < 25 %	STOT SE 3 H336 Eye Irrit. 2 H319 Flam. Liq. 2 H225
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 68920-06-9	272-912-9	10- < 25 %	Asp. Tox. 1 H304 Flam. Liq. 2 H225 STOT SE 3; Inhalation H336 Aquatic Chronic 2 H411
Propan-2-ol 67-63-0	200-661-7 01-2119457558-25	10- < 25 %	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336
Propane 74-98-6	200-827-9 01-2119486944-21	10- < 25 %	Flam. Gas 1 H220 Press. Gas H280
Butane, n- (< 0.1 % butadiene) 106-97-8	203-448-7 01-2119474691-32	1- < 2,5 %	Flam. Gas 1 H220 Press. Gas H280
2-Butoxyethanol 111-76-2	203-905-0 01-2119475108-36	1- < 2,5 %	Acute Tox. 4; Inhalation H332 Acute Tox. 4; Oral H302 Eye Irrit. 2 H319 Skin Irrit. 2 H315

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

> 30 % aliphatic hydrocarbons
15 - 30 % aromatic hydrocarbons

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.
Obtain medical attention if irritation persists.

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

Vapors may cause drowsiness and dizziness.

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:

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

Vapours may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back.
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.

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.
Wear protective equipment.
Avoid contact with skin and eyes.

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

Keep away from sources of ignition - no smoking.
Vapours should be extracted to avoid inhalation.
Use only in well-ventilated areas.
Avoid skin and eye contact.
See advice in section 8

Hygiene measures:

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

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
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
Butanone 78-93-3 [BUTAN-2-ONE (METHYL ETHYL KETONE)]	300	899	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Propan-2-ol 67-63-0 [PROPAN-2-OL]	400	999	Time Weighted Average (TWA):		EH40 WEL
Propan-2-ol 67-63-0 [PROPAN-2-OL]	500	1.250	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Butane 106-97-8 [BUTANE]	600	1.450	Time Weighted Average (TWA):		EH40 WEL
Butane 106-97-8 [BUTANE]	750	1.810	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	25	123	Time Weighted Average (TWA):		EH40 WEL
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	20	98	Time Weighted Average (TWA):	Indicative	ECTLV
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	50	246	Short Term Exposure Limit (STEL):	Indicative	ECTLV
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	50	246	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
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	ECTLV

Butanone 78-93-3 [BUTANONE]	300	900	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK)]	300	900	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	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
Butane 106-97-8 [N-BUTANE]	1.000		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL (EGBE)]	50	246	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL (EGBE)]	20	98	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL (EGBE)]			Skin designation:	Can be absorbed through the skin.	IR_OEL
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	20	98	Time Weighted Average (TWA):	Indicative	ECTLV
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	50	246	Short Term Exposure Limit (STEL):	Indicative	ECTLV

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Reaction mass of ethylbenzene and xylene	aqua (freshwater)		0,327 mg/l				
Reaction mass of ethylbenzene and xylene	aqua (marine water)		0,327 mg/l				
Reaction mass of ethylbenzene and xylene	sewage treatment plant (STP)		6,58 mg/l				
Reaction mass of ethylbenzene and xylene	sediment (freshwater)				12,46 mg/kg		
Reaction mass of ethylbenzene and xylene	sediment (marine water)				12,46 mg/kg		
Reaction mass of ethylbenzene and xylene	soil				2,31 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 releases)		55,8 mg/l				
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		
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		
2-butoxyethanol 111-76-2	aqua (freshwater)		8,8 mg/l				
2-butoxyethanol 111-76-2	aqua (marine water)		0,88 mg/l				
2-butoxyethanol 111-76-2	sewage treatment plant (STP)		463 mg/l				
2-butoxyethanol 111-76-2	sediment (freshwater)				34,6 mg/kg		
2-butoxyethanol 111-76-2	sediment (marine water)				3,46 mg/kg		
2-butoxyethanol 111-76-2	Soil				2,33 mg/kg		
2-butoxyethanol 111-76-2	oral				20 mg/kg		
2-butoxyethanol 111-76-2	aqua (intermittent releases)		26,4 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Reaction mass of ethylbenzene and xylene	Workers	inhalation	Long term exposure - systemic effects		221 mg/m ³	
Reaction mass of ethylbenzene and xylene	Workers	inhalation	Long term exposure - local effects		221 mg/m ³	
Reaction mass of ethylbenzene and xylene	Workers	dermal	Long term exposure - systemic effects		212 mg/kg	
Reaction mass of ethylbenzene and xylene	General population	inhalation	Long term exposure - systemic effects		65,3 mg/m ³	
Reaction mass of ethylbenzene and xylene	General population	dermal	Long term exposure - systemic effects		125 mg/kg	
Reaction mass of ethylbenzene and xylene	General population	oral	Long term exposure - systemic effects		12,5 mg/kg	
Reaction mass of ethylbenzene and xylene	Workers	inhalation	Acute/short term exposure - systemic effects		442 mg/m ³	
Reaction mass of ethylbenzene and xylene	Workers	inhalation	Acute/short term exposure - local effects		442 mg/m ³	
Reaction mass of ethylbenzene and xylene	General population	inhalation	Acute/short term exposure - systemic effects		260 mg/m ³	
Reaction mass of ethylbenzene and xylene	General population	inhalation	Long term exposure - local effects		65,3 mg/m ³	
Reaction mass of ethylbenzene and xylene	General population	inhalation	Acute/short term exposure - local effects		260 mg/m ³	
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/m ³	
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/m ³	
Butanone 78-93-3	General population	oral	Long term exposure - systemic effects		31 mg/kg	
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/m ³	
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/m ³	
Propan-2-ol 67-63-0	General population	oral	Long term exposure - systemic effects		26 mg/kg	
2-butoxyethanol 111-76-2	Workers	inhalation	Long term exposure - systemic effects		98 mg/m ³	
2-butoxyethanol 111-76-2	Workers	inhalation	Acute/short term exposure - local effects		246 mg/m ³	
2-butoxyethanol 111-76-2	Workers	inhalation	Acute/short term exposure -		1091 mg/m ³	

			systemic effects			
2-butoxyethanol 111-76-2	Workers	dermal	Long term exposure - systemic effects		125 mg/kg	
2-butoxyethanol 111-76-2	Workers	dermal	Acute/short term exposure - systemic effects		89 mg/kg	
2-butoxyethanol 111-76-2	General population	inhalation	Long term exposure - systemic effects		59 mg/m3	
2-butoxyethanol 111-76-2	General population	inhalation	Acute/short term exposure - systemic effects		426 mg/m3	
2-butoxyethanol 111-76-2	General population	inhalation	Acute/short term exposure - local effects		147 mg/m3	
2-butoxyethanol 111-76-2	General population	dermal	Long term exposure - systemic effects		75 mg/kg	
2-butoxyethanol 111-76-2	General population	dermal	Acute/short term exposure - systemic effects		89 mg/kg	
2-butoxyethanol 111-76-2	General population	oral	Long term exposure - systemic effects		6,3 mg/kg	
2-butoxyethanol 111-76-2	General population	oral	Acute/short term exposure - systemic effects		26,7 mg/kg	

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		
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	Butoxyacetic acid	Creatinine in urine	Sampling time: End of shift.		UKEH40BMG V		

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; \geq 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; \geq 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:
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 transparent
Odor	characteristic
Odour threshold	No data available / Not applicable
pH	Not applicable
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	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	
lower	0,7 % (V)
upper	12 % (V)
Vapour pressure (20 °C (68 °F))	3400 hPa
Relative vapour density:	No data available / Not applicable
Density (20 °C (68 °F))	0,745 g/cm ³
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (23 °C (73.4 °F); Solvent: Water)	Not 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

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

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

None if used properly.

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
Reaction mass of ethylbenzene and xylene	LD50	3.523 mg/kg	rat	not specified
Butanone 78-93-3	LD50	2.737 mg/kg	rat	not specified
Propan-2-ol 67-63-0	LD50	5.840 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
2-Butoxyethanol 111-76-2	Acute toxicity estimate (ATE)	1.200 mg/kg		Expert judgement

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
Butanone 78-93-3	LD50	> 6.400 mg/kg	rabbit	not specified
Propan-2-ol 67-63-0	LD50	12.870 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
2-Butoxyethanol 111-76-2	LD0	> 2.000 mg/kg	guinea pig	OECD Guideline 402 (Acute Dermal Toxicity)
2-Butoxyethanol 111-76-2	LD50	> 2.000 mg/kg	guinea pig	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
Butanone 78-93-3	LC50	> 20 mg/l	vapour	4 h	rat	not specified
Propan-2-ol 67-63-0	LC50	72,6 mg/l		4 h	rat	not specified
Propane 74-98-6	LC50	> 800000 ppm	gas	15 min	rat	not specified
Butane, n- (< 0.1 % butadiene) 106-97-8	LC50	274200 ppm	gas	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
Butanone 78-93-3	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Propan-2-ol 67-63-0	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-Butoxyethanol 111-76-2	irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: 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
Butanone 78-93-3	irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Propan-2-ol 67-63-0	Category II		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-Butoxyethanol 111-76-2	irritating	24 h	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
Reaction mass of ethylbenzene and xylene	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)
Propan-2-ol 67-63-0	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2-Butoxyethanol 111-76-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

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
Reaction mass of ethylbenzene and xylene	negative	in vitro mammalian chromosome aberration test	with and without		EU Method B.10 (Mutagenicity)
Reaction mass of ethylbenzene and xylene	negative	sister chromatid exchange assay in mammalian cells	with and without		EU Method B.19 (Sister Chromatid Exchange Assay In Vitro)
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)
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)
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)
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)
2-Butoxyethanol 111-76-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Butoxyethanol 111-76-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-Butoxyethanol 111-76-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Reaction mass of ethylbenzene and xylene	negative	intraperitoneal		rat	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Butanone 78-93-3	negative	intraperitoneal		mouse	equivalent or similar to 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)
Propane 74-98-6	negative			Drosophila melanogaster	not specified
Propane 74-98-6	negative	inhalation: gas		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus 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)
2-Butoxyethanol	negative	intraperitoneal		mouse	OECD Guideline 474

111-76-2					(Mammalian Erythrocyte Micronucleus Test)
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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
Reaction mass of ethylbenzene and xylene	not carcinogenic	oral: gavage	5 days per week/103 weeks once daily (5 days/week)	rat	male/female	EU Method B.32 (Carcinogenicity Test)
Propan-2-ol 67-63-0		inhalation: vapour	104 w 6 h/d, 5 d/w	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
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)
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)
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)
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)
2-Butoxyethanol 111-76-2	NOAEL P 720 mg/kg NOAEL F1 720 mg/kg NOAEL F2 720 mg/kg	Two generation study	oral: drinking water	mouse	not specified

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
Reaction mass of ethylbenzene and xylene	NOAEL 150 mg/kg	oral: gavage	90 days once/daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Butanone 78-93-3	NOAEL 2500 ppm	inhalation	90 days 6 hours/day, 5 days/week	rat	not specified
Propan-2-ol 67-63-0		inhalation: vapour	at least 104 w 6 h/d, 5 d/w	rat	OECD Guideline 451 (Carcinogenicity Studies)
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)
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)
2-Butoxyethanol 111-76-2	NOAEL 0,121 mg/l	inhalation	42 or 90 days 6 hours/day, 5 days/week	rat	not specified
2-Butoxyethanol 111-76-2	NOAEL < 69 mg/kg	oral: drinking water	90 d continuous	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard:

The mixture is classified based on Viscosity data.

Hazardous substances CAS-No.	Viscosity (kinematic) Value	Temperature	Method	Remarks
Reaction mass of ethylbenzene and xylene	< 0,9 mm ² /s	20 °C	not specified	
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
Reaction mass of ethylbenzene and xylene	LC50	2,6 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Reaction mass of ethylbenzene and xylene	NOEC	> 1,3 mg/l	56 d	Oncorhynchus mykiss	other guideline:
Butanone 78-93-3	LC50	3.220 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 68920-06-9	LC50	> 3 - 10 mg/l	96 h	Oncorhynchus mykiss	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)
Butane, n- (< 0.1 % butadiene) 106-97-8	LC50	27,98 mg/l	96 h		not specified
2-Butoxyethanol 111-76-2	LC50	1.474 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Butoxyethanol 111-76-2	NOEC	> 100 mg/l	21 d	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)

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
Reaction mass of ethylbenzene and xylene	IC50	> 1 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butanone 78-93-3	EC50	5.091 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 68920-06-9	EC50	> 4,6 - 10 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butane, n- (< 0.1 % butadiene) 106-97-8	EC50	14,22 mg/l	48 h		not specified
2-Butoxyethanol 111-76-2	EC50	1.550 mg/l	48 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
Reaction mass of ethylbenzene and xylene	NOEC	1,17 mg/l	7 d	Ceriodaphnia dubia	other guideline:
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 68920-06-9	NOELR	1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Propan-2-ol 67-63-0	NOEC	30 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
2-Butoxyethanol 111-76-2	NOEC	100 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
Reaction mass of ethylbenzene and xylene	EC50	4,36 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction mass of ethylbenzene and xylene	NOEC	0,44 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butanone 78-93-3	EC50	> 1.000 mg/l			OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 68920-06-9	EL50	> 10 - 30 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 68920-06-9	NOELR	10 mg/l	72 h	Raphidocelis subcapitata (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)
Butane, n- (< 0.1 % butadiene) 106-97-8	EC50	7,71 mg/l	96 h		not specified
2-Butoxyethanol 111-76-2	EC50	1.840 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Butoxyethanol 111-76-2	NOEC	286 mg/l	72 h	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
Reaction mass of ethylbenzene and xylene	NOEC	157 mg/l	3 h	activated sludge, domestic	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)
Propan-2-ol 67-63-0	EC50	> 1.000 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-Butoxyethanol 111-76-2	EC0	1.000 mg/l	30 min		not specified

12.2. Persistence and degradability

No data available.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Reaction mass of ethylbenzene and xylene	readily biodegradable	aerobic	87,8 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Butanone 78-93-3	readily biodegradable	aerobic	> 60 %		OECD 301 A - F
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 68920-06-9	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
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)
2-Butoxyethanol 111-76-2	readily biodegradable	aerobic	73 %	30 d	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)

12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Reaction mass of ethylbenzene and xylene	25,9	56 d		Oncorhynchus mykiss	other guideline:

12.4. Mobility in soil

The product evaporates readily.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Reaction mass of ethylbenzene and xylene	3,49	30 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Butanone 78-93-3	0,29		not specified
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 68920-06-9	5,65	25 °C	QSAR (Quantitative Structure Activity Relationship)
Propan-2-ol 67-63-0	0,05		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
2-Butoxyethanol 111-76-2	0,81	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
Reaction mass of ethylbenzene and xylene	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.
Propan-2-ol 67-63-0	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.
Butane, n- (< 0.1 % butadiene) 106-97-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-Butoxyethanol 111-76-2	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:

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.

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 Tunnelcode: (D)
RID	not applicable
ADN	not applicable
IMDG	not applicable
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 80,9 %
(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.
- H226 Flammable liquid and vapor.
- H280 Contains gas under pressure; may explode if heated.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Further information:

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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.

Annex - Exposure Scenarios:

Exposure Scenarios for butanone (MEK) can be downloaded under the following link:

http://mysds.henkel.com/mysds/.547033.en.ANNEX_DE.25417830.0.DE.pdf

Alternatively they can be accessed on the internet site www.mysds.henkel.com by entering number 547033.