



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

Page 1 of 22

Pattex Spray Permanent

SDS No. : 43180
V008.0

Revision: 06.05.2019
printing date: 21.11.2019

Replaces version from: 13.07.2017

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

1.1. Product identifier

Pattex Spray Permanent

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

Intended use:
Spray adhesive

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 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Flammable aerosols	Category 1
H222 Extremely flammable aerosol.	
H229 Pressurised 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	
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

Methyl acetate

Naphtha, hydrotreated light, <0,1% benzene

Signal word:

Danger

Hazard statement:

H222 Extremely flammable aerosol.
 H229 Pressurised container: May burst if heated.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statement:

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.

**Precautionary statement:
Prevention**

P261 Avoid breathing spray.
 P271 Use only outdoors or in a well-ventilated area.
 P251 Do not pierce or burn, even after use.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
 No smoking.
 P211 Do not spray on an open flame or other ignition source.

**Precautionary statement:
Storage**

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**Precautionary statement:
Disposal**

P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards

Solvents contained in the product evaporate during processing and their vapors can form explosive/highly inflammable air/vapor mixtures.

Pregnant women should absolutely avoid inhalation and skin contact.

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:**

Spray adhesive

Base substances of preparation:

Styrene-butadiene copolymer
 in a mixture of organic solvents

Propellant gas base: propane/butane

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Methyl acetate 79-20-9	201-185-2 01-2119459211-47	20- 30 %	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336
Butane, n- (< 0.1 % butadiene) 106-97-8	203-448-7 01-2119474691-32	20- 30 %	Flam. Gas 1 H220 Press. Gas
Propane 74-98-6	200-827-9 01-2119486944-21	10- 20 %	Flam. Gas 1 H220 Press. Gas
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	265-151-9	>= 2,5- < 10 %	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Chronic 2 H411
Isobutane 75-28-5	200-857-2 01-2119485395-27	1- 10 %	Flam. Gas 1 H220 Press. Gas
Ethyl acetate 141-78-6	205-500-4 01-2119475103-46	>= 1- < 10 %	Flam. Liq. 2 H225 STOT SE 3 H336 Eye Irrit. 2 H319
n-Hexane 110-54-3	203-777-6 01-2119480412-44	0,1- < 1 %	Flam. Liq. 2 H225 Repr. 2 H361f Asp. Tox. 1 H304 STOT RE 2 H373 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Chronic 2 H411
Butyl hydroxytoluene 128-37-0	204-881-4 01-2119480433-40 01-2119555270-46 01-2119565113-46	0,025- < 0,25 % (0,25 %o- < 2,5 %o)	Aquatic Acute 1 H400 Aquatic Chronic 1 H410

**For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.**

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Skin care. Remove contaminated clothes immediately.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Ingestion:

Rinse mouth, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

SKIN: Redness, inflammation.

Causes serious eye irritation.

Vapors may cause drowsiness and dizziness.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media:**

carbon dioxide, foam, powder, water spray jet, fine water spray

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) and carbon dioxide (CO₂) can be released.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

Additional information:

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Wear protective equipment.

Danger of slipping on spilled product.

Avoid contact with skin and eyes.

Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust).

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

Ventilate working rooms thoroughly. Avoid naked flames, sparking and sources of ignition. Switch off electrical devices. Do not smoke, do not weld. Do not empty waste into waste water drains.

During processing and drying after adhesion, ventilate well. Avoid all sources of fire such as stoves and ovens. Switch off all electrical devices such as parabolic heaters, hot plates, storage heaters etc. in good time for them to have cooled down before commencing work. Avoid all sparks, including those occurring at electrical switches and devices.

Transport by automobile: leave the container wrapped in a cloth in the trunk, never in the passenger area.

Avoid skin and eye contact.

Hygiene measures:

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

Ensure good ventilation/extraction.

Store in a cool, frost-free place.

Storage at 15 to 25°C is recommended.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Spray adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Methyl acetate 79-20-9 [METHYL ACETATE]	250	770	Short Term Exposure Limit (STEL):		EH40 WEL
Methyl acetate 79-20-9 [METHYL ACETATE]	200	616	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
Ethyl acetate 141-78-6 [ETHYL ACETATE]	200	734	Time Weighted Average (TWA):	Indicative	ECTLV
Ethyl acetate 141-78-6 [ETHYL ACETATE]	400	1.468	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Ethyl acetate 141-78-6 [ETHYL ACETATE]	400	1.468	Short Term Exposure Limit (STEL):		EH40 WEL
Ethyl acetate 141-78-6 [ETHYL ACETATE]	200	734	Time Weighted Average (TWA):		EH40 WEL
n-Hexane 110-54-3 [N-HEXANE]	20	72	Time Weighted Average (TWA):		EH40 WEL
n-Hexane 110-54-3 [N-HEXANE]	20	72	Time Weighted Average (TWA):	Indicative	ECTLV
2,6-di-tert-Butyl-p-cresol 128-37-0 [2,6-DI-TERT-BUTYL-P-CRESOL]		10	Time Weighted Average (TWA):		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
Methyl acetate 79-20-9 [METHYL ACETATE]	200	610	Time Weighted Average (TWA):		IR_OEL
Methyl acetate 79-20-9 [METHYL ACETATE]	250	760	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Butane 106-97-8 [BUTANE]	1.000		Time Weighted Average (TWA):		IR_OEL
Isobutane 75-28-5 [ISOBUTANE]	1.000		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Ethyl acetate 141-78-6 [ETHYL ACETATE]	200	734	Time Weighted Average (TWA):	Indicative	ECTLV
Ethyl acetate 141-78-6 [ETHYL ACETATE]	400	1.468	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Ethyl acetate 141-78-6	200	734	Time Weighted Average (TWA):	Indicative OELV	IR_OEL

[ETHYL ACETATE]					
Ethyl acetate 141-78-6 [ETHYL ACETATE]	400	1.468	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
n-Hexane 110-54-3 [N-HEXANE]	20	72	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
n-Hexane 110-54-3 [N-HEXANE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
n-Hexane 110-54-3 [N-HEXANE]	20	72	Time Weighted Average (TWA):	Indicative	ECLTV
2,6-di-tert-Butyl-p-cresol 128-37-0 [2,6-DITERTIARY-BUTYL-PARA- CRESOL]		2	Time Weighted Average (TWA):		IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Methyl acetate 79-20-9	aqua (freshwater)		0,12 mg/l				
Methyl acetate 79-20-9	aqua (marine water)		0,012 mg/l				
Methyl acetate 79-20-9	sewage treatment plant (STP)		600 mg/l				
Methyl acetate 79-20-9	sediment (freshwater)				0,128 mg/kg		
Methyl acetate 79-20-9	sediment (marine water)				0,0128 mg/kg		
Methyl acetate 79-20-9	Air						
Methyl acetate 79-20-9	Soil				0,042 mg/kg		
Methyl acetate 79-20-9	oral				20,4 mg/kg		
Ethyl acetate 141-78-6	aqua (freshwater)		0,24 mg/l				
Ethyl acetate 141-78-6	aqua (marine water)		0,024 mg/l				
Ethyl acetate 141-78-6	aqua (intermittent releases)		1,65 mg/l				
Ethyl acetate 141-78-6	sewage treatment plant (STP)		650 mg/l				
Ethyl acetate 141-78-6	sediment (freshwater)				1,15 mg/kg		
Ethyl acetate 141-78-6	sediment (marine water)				0,115 mg/kg		
Ethyl acetate 141-78-6	Air						
Ethyl acetate 141-78-6	Soil				0,148 mg/kg		
Ethyl acetate 141-78-6	oral				200 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (freshwater)		0,000199 mg/l				
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (marine water)		0,00002 mg/l				
2,6-Di-tert-butyl-p-cresol 128-37-0	sewage treatment plant (STP)		0,17 mg/l				
2,6-Di-tert-butyl-p-cresol 128-37-0	sediment (freshwater)				0,0996 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	sediment (marine water)				0,00996 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	Soil				0,04769 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	oral				8,33 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (intermittent releases)		0,00199 mg/l				
2,6-Di-tert-butyl-p-cresol 128-37-0	Air						

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Methyl acetate 79-20-9	Workers	inhalation	Long term exposure - systemic effects		610 mg/m ³	
Methyl acetate 79-20-9	Workers	inhalation	Long term exposure - local effects		305 mg/m ³	
Methyl acetate 79-20-9	Workers	dermal	Long term exposure - systemic effects		88 mg/kg	
Methyl acetate 79-20-9	General population	inhalation	Long term exposure - systemic effects		131 mg/m ³	
Methyl acetate 79-20-9	General population	inhalation	Long term exposure - local effects		152 mg/m ³	
Methyl acetate 79-20-9	General population	dermal	Long term exposure - systemic effects		44 mg/kg	
Methyl acetate 79-20-9	General population	oral	Long term exposure - systemic effects		44 mg/kg	
Ethyl acetate 141-78-6	Workers	inhalation	Acute/short term exposure - systemic effects		1468 mg/m ³	
Ethyl acetate 141-78-6	Workers	inhalation	Acute/short term exposure - local effects		1468 mg/m ³	
Ethyl acetate 141-78-6	Workers	dermal	Long term exposure - systemic effects		63 mg/kg	
Ethyl acetate 141-78-6	Workers	inhalation	Long term exposure - systemic effects		734 mg/m ³	
Ethyl acetate 141-78-6	Workers	inhalation	Long term exposure - local effects		734 mg/m ³	
Ethyl acetate 141-78-6	General population	Inhalation	Acute/short term exposure - systemic effects		734 mg/m ³	
Ethyl acetate 141-78-6	General population	inhalation	Acute/short term exposure - local effects		734 mg/m ³	
Ethyl acetate 141-78-6	General population	dermal	Long term exposure - systemic effects		37 mg/kg	
Ethyl acetate 141-78-6	General population	inhalation	Long term exposure - systemic effects		367 mg/m ³	
Ethyl acetate 141-78-6	General population	oral	Long term exposure - systemic effects		4,5 mg/kg	
Ethyl acetate 141-78-6	General population	inhalation	Long term exposure - local effects		367 mg/m ³	
n-Hexane 110-54-3	General population	inhalation	Long term exposure - systemic effects		16 mg/m ³	
n-Hexane 110-54-3	Workers	dermal	Long term exposure - systemic effects		11 mg/kg	
n-Hexane 110-54-3	General population	dermal	Long term exposure - systemic effects		5,3 mg/kg	
n-Hexane 110-54-3	Workers	inhalation	Long term exposure - systemic effects		75 mg/m ³	
n-Hexane 110-54-3	General population	oral	Long term exposure - systemic effects		4 mg/kg	
2,6-Di-tert-butyl-p-cresol 128-37-0	Workers	inhalation	Long term exposure -		3,5 mg/m ³	

			systemic effects			
2,6-Di-tert-butyl-p-cresol 128-37-0	Workers	dermal	Long term exposure - systemic effects		0,5 mg/kg	
2,6-Di-tert-butyl-p-cresol 128-37-0	General population	inhalation	Long term exposure - systemic effects		0,86 mg/m ³	
2,6-Di-tert-butyl-p-cresol 128-37-0	General population	dermal	Long term exposure - systemic effects		0,25 mg/kg	
2,6-Di-tert-butyl-p-cresol 128-37-0	General population	oral	Long term exposure - systemic effects		0,25 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:**Respiratory protection:**

The product should only be used at workplaces with intensive ventilation/extraction. If intensive ventilation/extraction is not possible then self-contained independent respiratory protection should be worn.

Hand protection:

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s).Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

In the case of longer contact protective gloves made from chloroprene rubber are recommended according to EN 374.

Perforation time > 10 minutes

material thickness > 0.6 mm

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:

Goggles which can be tightly sealed.

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	pressurized can liquid colourless
Odor	of solvent
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point (1.013 hPa)	60 °C (140 °F)
Flash point	-30 °C (-22 °F); flash point, Abel-Pensky
Flash point	-60 °C (-76 °F); no method

Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	
lower	1,7 % (V)
upper	10,8 % (V)
Explosive limits	Values referring to propellant
	The product is not explosive. The formation of explosive vapor/air mixtures is possible.
Vapour pressure	No data available / Not applicable
Relative vapour density:	No data available / Not applicable
Density	0,7 - 0,74 g/cm ³
(20 °C (68 °F))	
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative)	Not miscible
(20 °C (68 °F); Solvent: Water)	
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
Solid content	20,5 - 21,5 %

9.2. Other information

Flow cup viscosity	25 s
(23 °C (73.4 °F); Nozzle: 25 mm ;; Flowcup	
Viscosity; HT-Method)	

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Temperatures over appr. 50 °C

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

None known.

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
Methyl acetate 79-20-9	LD50	6.482 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Ethyl acetate 141-78-6	LD50	6.100 mg/kg	rat	not specified
n-Hexane 110-54-3	LD50	16.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Butyl hydroxytoluene 128-37-0	LD50	> 6.000 mg/kg	rat	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
Methyl acetate 79-20-9	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Ethyl acetate 141-78-6	LD50	> 20.000 mg/kg	rabbit	Draize Test
n-Hexane 110-54-3	LD50	> 2.000 mg/kg	rabbit	not specified
Butyl hydroxytoluene 128-37-0	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The toxicity of the product is due to its narcotic effect after inhalation.
In the event of protracted or repeated exposure, damage to health cannot be excluded.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Methyl acetate 79-20-9	LC50	> 49,2 mg/l	vapour	4 h	rabbit	not specified
Butane, n- (< 0.1 % butadiene) 106-97-8	LC50	274200 ppm	gas	4 h	rat	not specified
Propane 74-98-6	LC50	> 800000 ppm	gas	15 min	rat	not specified
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	LC50	> 5,61 mg/l	dust/mist	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Isobutane 75-28-5	LC50	260200 ppm	gas	4 h	mouse	not specified
Ethyl acetate 141-78-6	LC0	> 22,5 mg/l	dust/mist	6 h	rat	other guideline:
Ethyl acetate 141-78-6	LC50	> 22,5 mg/l	dust/mist	6 h	rat	other guideline:
n-Hexane 110-54-3	LC50	> 31,86 mg/l	vapour	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
Methyl acetate 79-20-9	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Ethyl acetate 141-78-6	slightly irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
n-Hexane 110-54-3	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Butyl hydroxytoluene 128-37-0	not irritating	4 h	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
Methyl acetate 79-20-9	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Ethyl acetate 141-78-6	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
n-Hexane 110-54-3	not irritating		rabbit	not specified
Butyl hydroxytoluene 128-37-0	slightly 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
Ethyl acetate 141-78-6	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
n-Hexane 110-54-3	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Butyl hydroxytoluene 128-37-0	not sensitising	Draize Test	guinea pig	Draize Test

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
Methyl acetate 79-20-9	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	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)
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)
Isobutane 75-28-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isobutane 75-28-5	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Ethyl acetate 141-78-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ethyl acetate 141-78-6	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
n-Hexane 110-54-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
n-Hexane 110-54-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Butyl hydroxytoluene 128-37-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
Butyl hydroxytoluene 128-37-0	negative	in vitro mammalian chromosome aberration test	with and without		not specified
Butyl hydroxytoluene 128-37-0	negative	mammalian cell gene mutation assay	with		not specified
Methyl acetate 79-20-9	negative	inhalation		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)
Propane 74-98-6	negative			Drosophila melanogaster	not specified
Propane 74-98-6	negative	inhalation: gas		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Isobutane 75-28-5	negative			Drosophila melanogaster	not specified
Isobutane 75-28-5	negative	inhalation: gas		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Ethyl acetate 141-78-6	negative	oral: gavage		hamster, Chinese	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
n-Hexane 110-54-3	negative	inhalation: vapour		mouse	not specified
n-Hexane 110-54-3	negative	inhalation: vapour		rat	not specified
Butyl hydroxytoluene	negative	oral: feed		rat	not specified

128-37-0					
----------	--	--	--	--	--

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
n-Hexane 110-54-3	not carcinogenic	inhalation: vapour	2 y 6 h/d; 5 d/w	mouse	female	OECD Guideline 451 (Carcinogenicity Studies)
Butyl hydroxytoluene 128-37-0		oral: feed	2 y daily	rat	male	

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
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)
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)
Isobutane 75-28-5	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)
Ethyl acetate 141-78-6	NOAEL P 1.500 mg/kg	other	inhalation: vapour	rat	other guideline:
n-Hexane 110-54-3	NOAEL P 9000 ppm NOAEL F1 3000 ppm NOAEL F2 3000 ppm	Two generation study	inhalation: vapour	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
Butyl hydroxytoluene 128-37-0	NOAEL P 500 mg/kg	Two generation study	oral: feed	rat	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
Methyl acetate 79-20-9		inhalation: aerosol	28 days/ 6 hours 5 days a week	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
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)
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)
Isobutane 75-28-5		inhalation: gas	28 d	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Ethyl acetate 141-78-6	NOAEL 900 mg/kg	oral: gavage	90 d daily	rat	EPA OTS 795.2600 (Subchronic Oral Toxicity Test)
Ethyl acetate 141-78-6	NOAEL 1,28 mg/l	inhalation	94 d continuous	rat	EPA OTS 798.2450 (90- Day Inhalation Toxicity)
n-Hexane 110-54-3	NOAEL 568 mg/kg	oral: gavage	90 d 5 d/w	rat	not specified
n-Hexane 110-54-3	NOAEL 500 ppm	inhalation: vapour	90 d 6 h/d; 5 d/w	mouse	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Butyl hydroxytoluene 128-37-0	NOAEL 25 mg/kg	oral: feed	daily	rat	not specified

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of 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
Methyl acetate 79-20-9	LC50	250 - 350 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Butane, n- (< 0.1 % butadiene) 106-97-8	LC50	27,98 mg/l	96 h		not specified
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	LL50	8,2 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethyl acetate 141-78-6	LC50	220 mg/l	96 h	Pimephales promelas	other guideline:
n-Hexane 110-54-3	LC50	> 1 - 10 mg/l	96 h	not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
Butyl hydroxytoluene 128-37-0	LC50		96 h	Brachydanio rerio (new name: Danio rerio)	EU Method C.1 (Acute Toxicity for Fish)
Butyl hydroxytoluene 128-37-0	NOEC	0,053 mg/l	30 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
Methyl acetate 79-20-9	EC50	1.026,7 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
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	EL50	4,5 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethyl acetate 141-78-6	EC50	164 mg/l	48 h	Daphnia cucullata	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
n-Hexane 110-54-3	EC50	2,1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butyl hydroxytoluene 128-37-0	EC50	0,48 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
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	NOELR	2,6 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Ethyl acetate 141-78-6	NOEC	2,4 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Butyl hydroxytoluene 128-37-0	NOEC	0,069 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
Methyl acetate 79-20-9	EC50	> 120 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methyl acetate 79-20-9	NOEC	120 mg/l	72 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
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	EL50	3,1 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	NOELR	0,5 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isobutane 75-28-5	EC50	7,71 mg/l	96 h		not specified
Ethyl acetate 141-78-6	EC50	> 2.000 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethyl acetate 141-78-6	NOEC	2.000 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
n-Hexane 110-54-3	EC50	> 1 - 10 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butyl hydroxytoluene 128-37-0	EC50		72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Butyl hydroxytoluene 128-37-0	EC10	0,4 mg/l	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	EU Method C.3 (Algal 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
Methyl acetate 79-20-9	EC10	1.830 mg/l	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
Ethyl acetate 141-78-6	EC10	2.900 mg/l	18 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
n-Hexane 110-54-3	EC50	> 1 - 10 mg/l	3 h	not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Butyl hydroxytoluene 128-37-0	EC50		3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Methyl acetate 79-20-9	readily biodegradable	aerobic	70 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Methyl acetate 79-20-9	inherently biodegradable	aerobic	> 95 %	6 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	readily biodegradable	aerobic	77,05 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Ethyl acetate 141-78-6	readily biodegradable	aerobic	100 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
n-Hexane 110-54-3	readily biodegradable	aerobic	81 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Butyl hydroxytoluene 128-37-0	not readily biodegradable.	aerobic	4,5 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Butyl hydroxytoluene 128-37-0	not inherently biodegradable	aerobic	5,2 - 5,6 %	35 d	OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II))

12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Ethyl acetate 141-78-6	30	3 d	22,5 °C	Leuciscus idus melanotus	other guideline:
Butyl hydroxytoluene 128-37-0	330 - 1.800	56 d		Cyprinus carpio	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Methyl acetate 79-20-9	0,18		other guideline:
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	4 - 5,7		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Isobutane 75-28-5	2,88	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Ethyl acetate 141-78-6	0,68	25 °C	EPA OPPTS 830.7560 (Partition Coefficient, n-octanol / H2O, Generator Column Method)
n-Hexane 110-54-3	4	20 °C	other guideline:
Butyl hydroxytoluene 128-37-0	5,1		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
Methyl acetate 79-20-9	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.
Propane 74-98-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Isobutane 75-28-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Ethyl acetate 141-78-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
n-Hexane 110-54-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Butyl hydroxytoluene 128-37-0	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 waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code

080409

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 77,36 %
(VOCV 814.018 VOC regulation
CH)

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.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H361f Suspected of damaging fertility.
- 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.

Further information:

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel's Product Safety and Regulatory Affairs Department (ua-productsafety.de@henkel.com) prior to export to other territories than the European Union.

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.