



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

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Pattex Kraftkleber Classic

SDS No. : 390436
V005.0

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

1.1. Product identifier

Pattex Kraftkleber Classic

Contains:

Ethyl acetate
Methylcyclohexane

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

Intended use:
Contact adhesive

1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA
Henkelstr. 67
40589 Düsseldorf

Germany

Phone: +49 211 797 0
Fax-no.: +49 211 798 2009

ua-productsafety.de@henkel.com

1.4. Emergency telephone number

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

Further information is available at Poison Control Centers.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Flammable liquids	Category 2
H225 Highly flammable liquid and vapor.	
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 2
H411 Toxic to aquatic life with long lasting effects.	

2.2. Label elements**Label elements (CLP):****Hazard pictogram:****Signal word:**

Danger

Hazard statement:

H225 Highly flammable liquid and vapor.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.

Supplemental information

Contains Colophony. May produce an allergic reaction.

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**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
 No smoking.
 P261 Avoid breathing mist/vapours.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/eye protection.

**Precautionary statement:
Storage**

P403 Store in a well-ventilated place.

**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:**

Adhesive

Base substances of preparation:

aliphatic hydrocarbons

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Ethyl acetate 141-78-6	205-500-4 01-2119475103-46	20- 40 %	Flam. Liq. 2 H225 STOT SE 3 H336 Eye Irrit. 2 H319
Methylcyclohexane 108-87-2	203-624-3 01-2119486992-20	25- 40 %	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Chronic 2 H411
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	295-763-1, 926- 605-8 01-2119486291-36	5- < 10 %	Flam. Liq. 2 H225 Asp. Tox. 1 H304 STOT SE 3 H336
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	295-763-1, 921- 024-6 01-2119475514-35	1- < 5 %	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Chronic 2 H411
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	300-230-4 01-2119475515-33	1- < 5 %	Asp. Tox. 1 H304 Skin Irrit. 2 H315 Flam. Liq. 2 H225 STOT SE 3; Inhalation H336 Aquatic Chronic 2 H411
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	01-2119475514-35 01-2119484651-34	1- < 5 %	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Chronic 2 H411
zinc oxide 1314-13-2	215-222-5 01-2119463881-32	0,1- < 1 %	Aquatic Chronic 1 H410 Aquatic Acute 1 H400
Colophony 8050-09-7	232-475-7 01-2119480418-32	0,1- < 1 %	Skin Sens. 1 H317
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	271-867-2 01-2119496062-39	0,1- < 1 %	Aquatic Chronic 4 H413 Repr. 2 H361d

**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

Causes serious eye irritation.

SKIN: Redness, inflammation.

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 self-contained breathing apparatus.

Wear protective equipment.

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.

Ensure adequate ventilation.

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

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.

Avoid skin and eye contact.

Hygiene measures:

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

Keep only in original container.

Close the container carefully after use and store it at a good ventilated place.

Avoid strictly temperatures below + 5 °C and above + 50 °C.

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

7.3. Specific end use(s)

Contact adhesive

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure Limits**

Valid for
Germany

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
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			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Ethyl acetate 141-78-6	200	730	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Methylcyclohexane 108-87-2			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Methylcyclohexane 108-87-2	200	810	Exposure limit(s):	2	TRGS 900
Magnesium oxide 1309-48-4		10	Exposure limit(s):	2	TRGS 900
Magnesium oxide 1309-48-4		1,25	Exposure limit(s):		TRGS 900
Magnesium oxide 1309-48-4			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Ethyl acetate 141-78-6	aqua (freshwater)		0,26 mg/l				
Ethyl acetate 141-78-6	aqua (marine water)		0,026 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)				1,25 mg/kg		
Ethyl acetate 141-78-6	sediment (marine water)				0,125 mg/kg		
Ethyl acetate 141-78-6	oral				200 mg/kg		
Ethyl acetate 141-78-6	soil				0,24 mg/kg		
zinc oxide 1314-13-2	aqua (freshwater)		0,0206 mg/l				
zinc oxide 1314-13-2	aqua (marine water)		0,0061 mg/l				
zinc oxide 1314-13-2	sewage treatment plant (STP)		0,1 mg/l				
zinc oxide 1314-13-2	sediment (freshwater)				117,8 mg/kg		
zinc oxide 1314-13-2	sediment (marine water)				56,5 mg/kg		
zinc oxide 1314-13-2	soil				35,6 mg/kg		
zinc oxide 1314-13-2	Air						
Colophony 8050-09-7	aqua (freshwater)		0,002 mg/l				
Colophony 8050-09-7	aqua (marine water)		0,0002 mg/l				
Colophony 8050-09-7	sediment (freshwater)				0,007 mg/kg		
Colophony 8050-09-7	sediment (marine water)				0,001 mg/kg		
Colophony 8050-09-7	soil				0 mg/kg		
Colophony 8050-09-7	sewage treatment plant (STP)		1000 mg/l				
Colophony 8050-09-7	aqua (intermittent releases)		0,016 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
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	
Methylcyclohexane 108-87-2	Workers	dermal	Long term exposure - systemic effects		773 mg/kg	
Methylcyclohexane 108-87-2	Workers	Inhalation	Long term exposure - systemic effects		2035 mg/m ³	
Methylcyclohexane 108-87-2	General population	dermal	Long term exposure - systemic effects		699 mg/kg	
Methylcyclohexane 108-87-2	General population	Inhalation	Long term exposure - systemic effects		608 mg/m ³	
Methylcyclohexane 108-87-2	General population	oral	Long term exposure - systemic effects		699 mg/kg	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Workers	dermal	Long term exposure - systemic effects		13964 mg/kg	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Workers	inhalation	Long term exposure - systemic effects		5306 mg/m ³	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	dermal	Long term exposure - systemic effects		1377 mg/kg	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	inhalation	Long term exposure - systemic effects		1131 mg/m ³	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	oral	Long term exposure - systemic effects		1301 mg/kg	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Workers	dermal	Long term exposure - systemic effects		773 mg/kg	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Workers	inhalation	Long term exposure - systemic effects		2035 mg/m ³	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	General population	dermal	Long term exposure -		699 mg/kg	

92128-66-0			systemic effects			
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	inhalation	Long term exposure - systemic effects		608 mg/m3	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	oral	Long term exposure - systemic effects		699 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	Workers	dermal	Long term exposure - systemic effects		300 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	Workers	Inhalation	Long term exposure - systemic effects		2085 mg/m3	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	General population	dermal	Long term exposure - systemic effects		149 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	General population	oral	Long term exposure - systemic effects		149 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	General population	Inhalation	Long term exposure - systemic effects		447 mg/m3	
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	Workers	dermal	Long term exposure - systemic effects		773 mg/kg	
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	General population	oral	Long term exposure - systemic effects		699 mg/kg	
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	General population	dermal	Long term exposure - systemic effects		699 mg/kg	
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	General population	Inhalation	Long term exposure - systemic effects		608 mg/m3	
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	Workers	Inhalation	Long term exposure - systemic effects		2035 mg/m3	
zinc oxide 1314-13-2	Workers	Inhalation	Long term exposure - systemic effects		5 mg/m3	
zinc oxide 1314-13-2	Workers	dermal	Long term exposure - systemic effects		83 mg/kg	
zinc oxide 1314-13-2	Workers	inhalation	Long term exposure - local effects		0,5 mg/m3	
zinc oxide 1314-13-2	General population	Inhalation	Long term exposure - systemic effects		2,5 mg/m3	
zinc oxide 1314-13-2	General population	dermal	Long term exposure - systemic effects		83 mg/kg	
zinc oxide 1314-13-2	General population	oral	Long term exposure - systemic effects		0,83 mg/kg	
Colophony 8050-09-7	Workers	inhalation	Long term exposure - systemic effects		117 mg/m3	
Colophony 8050-09-7	Workers	dermal	Long term exposure - systemic effects		17 mg/kg	
Colophony 8050-09-7	General population	inhalation	Long term exposure - systemic effects		35 mg/m3	
Colophony 8050-09-7	General population	dermal	Long term exposure - systemic effects		10 mg/kg	
Colophony 8050-09-7	General population	oral	Long term exposure - systemic effects		10 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.

Combination filter: ABEKP (EN 14387)

This recommendation should be matched to local conditions.

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 nitrile rubber are recommended according to EN 374.

Perforation time > 10 minutes

material thickness > 0.4 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	liquid highly viscous beige
Odor	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	75 °C (167 °F)
Flash point	< -10 °C (< 14 °F); DIN EN ISO 3679
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	
lower	1,4 % (V)
upper	8,60 % (V)
Vapour pressure (20 °C (68 °F))	120 mbar
Vapour pressure (25 °C (77 °F))	150 mbar
Vapour pressure (50 °C (122 °F))	430 mbar
Vapour pressure (70 °C (158 °F))	860 mbar
Relative vapour density:	No data available / Not applicable

Density (20 °C (68 °F))	0,84 - 0,88 g/ml
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (23 °C (73.4 °F); Solvent: Water)	Partially soluble
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 (Brookfield; 20 °C (68 °F); speed of rotation: 50 min-1; Spindle No: 4)	1.700 - 2.300 mPa.s
Viscosity (kinematic) (20 °C (68 °F);)	> 1.000 mm ² /s
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 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

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

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
Ethyl acetate 141-78-6	LD50	6.100 mg/kg	rat	not specified
Methylcyclohexane 108-87-2	LD50	> 5.840 mg/kg	rat	not specified
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 93924-37-9	LD50	> 5.840 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
zinc oxide 1314-13-2	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Colophony 8050-09-7	LD50	2.800 mg/kg	rat	not specified
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	LD50	> 5.000 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
Ethyl acetate 141-78-6	LD50	> 20.000 mg/kg	rabbit	Draize Test
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 93924-37-9	LD50	> 2.920 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
zinc oxide 1314-13-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Colophony 8050-09-7	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	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
Ethyl acetate 141-78-6	LC50	200 mg/l		1 h	rat	not specified
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 93924-37-9	LC50	> 23,3 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
zinc oxide 1314-13-2	LC50	> 5,7 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Ethyl acetate 141-78-6	slightly irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 93924-37-9	irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
zinc oxide 1314-13-2	not irritating		rabbit	not specified
Colophony 8050-09-7	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	not irritating	4 h	rabbit	EPA Guideline

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
Ethyl acetate 141-78-6	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 93924-37-9	not irritating		rabbit	other guideline:
zinc oxide 1314-13-2	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Colophony 8050-09-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	slightly irritating	24 h	rabbit	EPA Guideline

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)
zinc oxide 1314-13-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	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
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)
zinc oxide 1314-13-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
zinc oxide 1314-13-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
zinc oxide 1314-13-2	ambiguous	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Colophony 8050-09-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Ethyl acetate 141-78-6	negative	oral: gavage		hamster, Chinese	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
zinc oxide 1314-13-2	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

No data available.

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
Ethyl acetate 141-78-6	NOAEL P 1.500 mg/kg	other	inhalation: vapour	rat	other guideline:

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
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)
zinc oxide 1314-13-2	NOAEL 31,52 mg/kg	oral: feed	13 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOAEL 500 ppm	oral: feed	90 Days Daily	rat	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
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 93924-37-9	0,5 mm ² /s	20 °C	not specified	

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
Ethyl acetate 141-78-6	LC50	270 mg/l	48 h	Leuciscus idus melanotus	DIN 38412-15
Methylcyclohexane 108-87-2	LC 50	7,0 mg/l	24 h	Striped bass (Morone saxatilis)	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	LL50	12 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	LC50	> 1 - 10 mg/l			OECD Guideline 203 (Fish, Acute Toxicity Test)
zinc oxide 1314-13-2	LC50	0,142 mg/l	96 h	Thymallus arcticus	OECD Guideline 203 (Fish, Acute Toxicity Test)
zinc oxide 1314-13-2	NOEC	0,44 mg/l	72 d	Oncorhynchus mykiss	other guideline:
Colophony 8050-09-7	LC50		96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	LC50		96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOELR		34 d	Pimephales promelas	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
Ethyl acetate 141-78-6	EC50	164 mg/l	48 h	Daphnia cucullata	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methylcyclohexane 108-87-2	EC50	147.000 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	EL50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	EC50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	EC50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	EC50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
zinc oxide 1314-13-2	EC50	1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Colophony 8050-09-7	EL50		48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Phenol, 4-methyl-, reaction	EC50		48 h	Daphnia magna	OECD Guideline 202

products with dicyclopentadiene and isobutylene 68610-51-5					(Daphnia sp. Acute Immobilisation Test)
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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
Ethyl acetate 141-78-6	NOEC	2,4 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	NOEC	0,17 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	NOEC	0,17 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
zinc oxide 1314-13-2	NOEC	0,058 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOELR		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
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)
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	EL50	55 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	NOEL	30 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	EC50	> 1 - 10 mg/l			OECD Guideline 201 (Alga, Growth Inhibition Test)
zinc oxide 1314-13-2	NOEC	0,017 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
zinc oxide 1314-13-2	EC50	0,17 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Colophony 8050-09-7	EL50		72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Colophony 8050-09-7	NOELR		72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOEC		72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	EC50		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
Ethyl acetate 141-78-6	EC10	2.900 mg/l	18 h		not specified
zinc oxide 1314-13-2	IC50	5,2 mg/l	3 h	not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Colophony 8050-09-7	EC20		3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Ethyl acetate 141-78-6	readily biodegradable	aerobic	100 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	readily biodegradable	aerobic	98 %	28 day	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Naphtha, hydrotreated light, <0,1% benzene 64742-49-0	readily biodegradable	aerobic	89 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Colophony 8050-09-7	readily biodegradable	aerobic	71 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	not inherently biodegradable	aerobic	1 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Ethyl acetate 141-78-6	0,6		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Methylcyclohexane 108-87-2	3,61		not specified
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	3,6	20 °C	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)
Colophony 8050-09-7	> 3 - 6,2		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	7,56	30 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Ethyl acetate 141-78-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Methylcyclohexane 108-87-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 93924-37-9	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.
zinc oxide 1314-13-2	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
Colophony 8050-09-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	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 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
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14.1. UN number

ADR	1133
RID	1133
ADN	1133
IMDG	1133
IATA	1133

14.2. UN proper shipping name

ADR	ADHESIVES
RID	ADHESIVES
ADN	ADHESIVES
IMDG	ADHESIVES (Methylcyclohexane)
IATA	Adhesives

14.3. Transport hazard class(es)

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine pollutant
IATA	not applicable

14.6. Special precautions for user

ADR	Special provision 640D Tunnelcode: (D/E)
RID	Special provision 640D
ADN	Special provision 640D
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 %
(VOCV 814.018 VOC regulation CH)	

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

National regulations/information (Germany):

WGK: 2, water-endangering product. (German VwVwS of May 17, 1999)
Classification in conformity with the calculation method
WGK: WGK = 2, significantly water endangering mixture. Classification according to the mixture rules in German AwSV regulation annex 1, number 5.2 from 18. April 2017.

Storage class according to TRGS 510: 3

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
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.
H413 May cause long lasting harmful effects to aquatic life.

Further information:

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

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

Annex - Exposure Scenarios:

Exposure Scenarios for ethyl acetate can be downloaded under the following link:
http://mysds.henkel.com/mysds/.490394..en.ANNEX_DE.19414935.0.DE.pdf
Alternatively they can be accessed on the internet site www.mysds.henkel.com by entering number 490394.