



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

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SDS No. : 524854  
V002.0

Pattex Leather Rubberk/WoodTube

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25.11.2015

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

#### 1.1. Product identifier

Pattex Leather Rubberk/WoodTube

#### Contains:

Ethyl acetate  
Cyclohexane

#### 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 South Africa (Pty) Ltd  
C/O Mill & Iscor Streets, Bellville South,  
7530 Western Cape

South Africa

Phone: +27 21 951 7011

ua-productsafety\_za@henkel.com

#### 1.4. Emergency telephone number

0800 202 202

### 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	
Acute hazards to the aquatic environment	Category 1
H400 Very toxic to aquatic life.	
Chronic hazards to the aquatic environment	Category 1
H410 Very toxic to aquatic life with long lasting effects.	

**Classification (DPD):**

F - Highly flammable  
R11 Highly flammable.  
Xi - Irritant  
R36/38 Irritating to eyes and skin.  
Dangerous for the environment  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R67 Vapours may cause drowsiness and dizziness.

**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.  
H410 Very toxic to aquatic life with long lasting effects.

**Supplemental information**

Contains Colophony. May produce an allergic reaction.

**Precautionary statement:**

P102 Keep out of reach of children.  
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.  
P280 Wear protective gloves/eye protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P501 Dispose of waste and residues in accordance with local authority requirements.

**Label elements (DPD):**

F - Highly flammable

Xi - Irritant

N - Dangerous for the environment

**Risk phrases:**

R11 Highly flammable.

R36/38 Irritating to eyes and skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67 Vapours may cause drowsiness and dizziness.

**Safety phrases:**

S2 Keep out of the reach of children.

S9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition - No smoking.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S29 Do not empty into drains.

S37/39 Wear suitable gloves and eye/face protection.

S46 If swallowed, seek medical advice immediately and show this container or label.

S60 This material and its container must be disposed of as hazardous waste.

Contains Colophony. May produce an allergic reaction.

**2.3. Other hazards**

Pregnant women should absolutely avoid inhalation and skin contact.

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

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:**

Contact adhesive

**Base substances of preparation:**

Mixture of organic solvents

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

<b>Hazardous components CAS-No.</b>	<b>EC Number REACH-Reg No.</b>	<b>content</b>	<b>Classification</b>
Ethyl acetate 141-78-6	205-500-4	20- 40 %	Flam. Liq. 2 H225 STOT SE 3 H336 Eye Irrit. 2 H319
Cyclohexane 110-82-7	203-806-2	20- 40 %	Asp. Tox. 1 H304 STOT SE 3 H336 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 Flam. Liq. 2 H225 Skin Irrit. 2 H315
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	265-151-9	10- < 20 %	Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Flam. Liq. 2 H225 Aquatic Chronic 2 H411
Colophony 8050-09-7	232-475-7	0,1- < 1 %	Skin Sens. 1 H317
n-Hexane 110-54-3	203-777-6	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
zinc oxide 1314-13-2	215-222-5	0,1- < 1 %	Aquatic Chronic 1 H410 Aquatic Acute 1 H400

**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 DPD (EC) No 1999/45:**

<b>Hazardous components CAS-No.</b>	<b>EC Number REACH-Reg No.</b>	<b>content</b>	<b>Classification</b>
Ethyl acetate 141-78-6	205-500-4	20 - 40 %	F - Highly flammable; R11 R66 Xi - Irritant; R36 R67
Cyclohexane 110-82-7	203-806-2	20 - 40 %	F - Highly flammable; R11 Xn - Harmful; R65 R67 N - Dangerous for the environment; R50/53 Xi - Irritant; R38
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	265-151-9	10 - < 20 %	F - Highly flammable; R11 Xi - Irritant; R38 Xn - Harmful; R65 R67 N - Dangerous for the environment; R51/53
Colophony 8050-09-7	232-475-7	0,1 - < 1 %	R43
n-Hexane 110-54-3	203-777-6	0,1 - < 1 %	F - Highly flammable; R11 Toxic for reproduction - category 3.; R62 Xn - Harmful; R65, R48/20 Xi - Irritant; R38 N - Dangerous for the environment; R51/53 R67
zinc oxide 1314-13-2	215-222-5	0,1 - < 1 %	N - Dangerous for the environment; R50/53

**For full text of the R-Phrases indicated by codes 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 (CO<sub>2</sub>) 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**

Avoid skin and eye contact.

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.

**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**

< + 35 °C

> 0 °C

Store in a cool place.

Store in sealed original container.

Ensure that storage and workrooms are adequately ventilated.

Keep away from sources of ignition and naked flames.

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  
South Africa

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Ethyl acetate 141-78-6 [ETHYL ACETATE]	400	1.400	Time Weighted Average (TWA):		ZA REL
Cyclohexane 110-82-7 [CYCLOHEXANE]	100	340	Time Weighted Average (TWA):		ZA REL
Cyclohexane 110-82-7 [CYCLOHEXANE]	300	1.030	Short Term Exposure Limit (STEL):		ZA REL
Magnesium oxide 1309-48-4 [MAGNESIUM OXIDE, FUME AND RESPIRABLE DUST (AS MG)]		10	Short Term Exposure Limit (STEL):		ZA REL
Magnesium oxide 1309-48-4 [MAGNESIUM OXIDE, RESPIRABLE DUST (AS MG)]		10	Time Weighted Average (TWA):		ZA REL
Magnesium oxide 1309-48-4 [MAGNESIUM OXIDE, FUME AND RESPIRABLE DUST (AS MG)]		5	Time Weighted Average (TWA):		ZA REL
Rosin 8050-09-7 [ROSIN CORE SOLDER PYROLYSIS PRODUCTS (AS FORMALDEHYDE)]		0,1	Time Weighted Average (TWA):		ZA REL
Rosin 8050-09-7 [ROSIN CORE SOLDER PYROLYSIS PRODUCTS (AS FORMALDEHYDE)]		0,3	Short Term Exposure Limit (STEL):		ZA REL
n-Hexane 110-54-3 [N-HEXANE]	20	70	Time Weighted Average (TWA):		ZA REL
Zinc oxide 1314-13-2 [ZINC OXIDE, FUME]		5	Time Weighted Average (TWA):		ZA REL
Zinc oxide 1314-13-2 [ZINC OXIDE, FUME]		10	Short Term Exposure Limit (STEL):		ZA REL

**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		
Cyclohexane 110-82-7	aqua (freshwater)		0,207 mg/l				
Cyclohexane 110-82-7	aqua (marine water)		0,207 mg/l				
Cyclohexane 110-82-7	aqua (intermittent releases)		0,207 mg/l				
Cyclohexane 110-82-7	sediment (freshwater)				3,627 mg/kg		
Cyclohexane 110-82-7	sediment (marine water)				3,627 mg/kg		
Cyclohexane 110-82-7	soil				2,99 mg/kg		
Cyclohexane 110-82-7	sewage treatment plant (STP)		3,24 mg/l				
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				0,0001 mg/kg		
Colophony 8050-09-7	sewage treatment plant (STP)		1000 mg/l				
Colophony 8050-09-7	aqua (intermittent releases)		0,016 mg/l				
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						



**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/m3	
Ethyl acetate 141-78-6	Workers	inhalation	Acute/short term exposure - local effects		1468 mg/m3	
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/m3	
Ethyl acetate 141-78-6	Workers	inhalation	Long term exposure - local effects		734 mg/m3	
Ethyl acetate 141-78-6	General population	Inhalation	Acute/short term exposure - systemic effects		734 mg/m3	
Ethyl acetate 141-78-6	General population	inhalation	Acute/short term exposure - local effects		734 mg/m3	
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/m3	
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/m3	
Cyclohexane 110-82-7	Workers	Inhalation	Acute/short term exposure - local effects		700 mg/m3	
Cyclohexane 110-82-7	Workers	Inhalation	Acute/short term exposure - systemic effects		700 mg/m3	
Cyclohexane 110-82-7	Workers	Inhalation	Long term exposure - systemic effects		700 mg/m3	
Cyclohexane 110-82-7	Workers	Inhalation	Long term exposure - local effects		700 mg/m3	
Cyclohexane 110-82-7	Workers	dermal	Long term exposure - systemic effects		2016 mg/kg	
Cyclohexane 110-82-7	General population	Inhalation	Acute/short term exposure - systemic effects		412 mg/m3	
Cyclohexane 110-82-7	General population	Inhalation	Acute/short term exposure - local effects		412 mg/m3	
Cyclohexane 110-82-7	General population	dermal	Long term exposure - systemic effects		1186 mg/kg	
Cyclohexane 110-82-7	General population	oral	Long term exposure - systemic effects		59,4 mg/kg	
Cyclohexane 110-82-7	General population	Inhalation	Long term exposure - systemic effects		206 mg/m3	
Cyclohexane 110-82-7	General population	Inhalation	Long term exposure - local effects		206 mg/m3	
Cyclohexane 110-82-7	Workers	dermal	Long term exposure - systemic effects		2016 mg/kg	
Naphtha (petroleum), hydrotreated light, < 0,1% benzene	General population	dermal	Long term exposure -		1377 mg/kg	

64742-49-0			systemic effects			
Naphtha (petroleum), hydrotreated light, < 0,1% benzene 64742-49-0	Workers	Inhalation	Long term exposure - systemic effects		5306 mg/m3	
Naphtha (petroleum), hydrotreated light, < 0,1% benzene 64742-49-0	General population	Inhalation	Long term exposure - systemic effects		1137 mg/m3	
Naphtha (petroleum), hydrotreated light, < 0,1% benzene 64742-49-0	General population	oral	Long term exposure - systemic effects		1301 mg/kg	
Naphtha (petroleum), hydrotreated light, < 0,1% benzene 64742-49-0	Workers	dermal	Long term exposure - systemic effects		13964 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	
n-Hexane 110-54-3	General population	inhalation	Long term exposure - systemic effects		16 mg/m3	
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/m3	
n-Hexane 110-54-3	General population	oral	Long term exposure - systemic effects		4 mg/kg	
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	

**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.

material thickness > 0.4 mm

Perforation time > 10 minutes

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 yellowish
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	No data available / Not applicable
Flash point	-22 °C (-7.6 °F)
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	957 mbar
Relative vapour density:	No data available / Not applicable
Density (23 °C (73.4 °F))	0,8 g/cm <sup>3</sup>
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Insoluble
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 (; 20 °C (68 °F))	2.000 - 2.800 mPa.s
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable
Solid content	0 %

**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 known

### 10.5. Incompatible materials

None if used properly.

### 10.6. Hazardous decomposition products

None

## 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
Cyclohexane 110-82-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Colophony 8050-09-7	LD50	2.800 mg/kg	rat	not specified
n-Hexane 110-54-3	LD50	16.000 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)

#### 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
Cyclohexane 110-82-7	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Colophony 8050-09-7	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
n-Hexane 110-54-3	LD50	> 2.000 mg/kg	rabbit	not specified
zinc oxide 1314-13-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

**Acute inhalative toxicity:**

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

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
Cyclohexane 110-82-7	LC50	> 32,880 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	LC50	> 20 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
n-Hexane 110-54-3	LC50		vapour	24 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)
Cyclohexane 110-82-7	not irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)
Colophony 8050-09-7	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
zinc oxide 1314-13-2	not irritating		rabbit	not specified

**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)
Cyclohexane 110-82-7	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Colophony 8050-09-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
n-Hexane 110-54-3	not irritating		rabbit	not specified
zinc oxide 1314-13-2	not 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)
Cyclohexane 110-82-7	not sensitising	Buehler test	guinea pig	EU Method B.6 (Skin Sensitisation)
n-Hexane 110-54-3	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
zinc oxide 1314-13-2	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.

<b>Hazardous substances CAS-No.</b>	<b>Result</b>	<b>Type of study / Route of administration</b>	<b>Metabolic activation / Exposure time</b>	<b>Species</b>	<b>Method</b>
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)
Cyclohexane 110-82-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cyclohexane 110-82-7	negative	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)
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)
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)
Ethyl acetate 141-78-6	negative	oral: gavage		hamster, Chinese	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Cyclohexane 110-82-7	negative	inhalation: vapour		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
n-Hexane 110-54-3	negative	inhalation: vapour		mouse	not specified
n-Hexane 110-54-3	negative	inhalation: vapour		rat	not specified
zinc oxide 1314-13-2	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

**Carcinogenicity**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

<b>Hazardous components CAS-No.</b>	<b>Result</b>	<b>Route of application</b>	<b>Exposure time / Frequency of treatment</b>	<b>Species</b>	<b>Sex</b>	<b>Method</b>
n-Hexane 110-54-3		inhalation: vapour	2 y 6 h/d; 5 d/w	mouse	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
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)

**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)
Cyclohexane 110-82-7	NOAEL 500 ppm	inhalation: vapour	13-14 w 6 h/d, 5 d/w	mouse	EPA OPPTS 870.3465 (90-Day Inhalation Toxicity)
n-Hexane 110-54-3	NOAEL 586 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)
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)

**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
Ethyl acetate 141-78-6	LC50	270 mg/l	48 h	Leuciscus idus melanotus	DIN 38412-15
Cyclohexane 110-82-7	LC50	4,53 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	LC50	> 1 - 10 mg/l			OECD Guideline 203 (Fish, Acute Toxicity Test)
Colophony 8050-09-7	LC50		96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
n-Hexane 110-54-3	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:

#### 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)
Cyclohexane 110-82-7	EC50	0,9 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	EC50	3 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)
n-Hexane 110-54-3	EC50	2,1 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)

#### 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)
zinc oxide 1314-13-2	NOEC	0,058 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
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)
Cyclohexane 110-82-7	EC50	9,317 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cyclohexane 110-82-7	NOEC	0,94 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	EC50	> 1 - 10 mg/l			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)
n-Hexane 110-54-3	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)

#### 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
Cyclohexane 110-82-7	IC50	29 mg/l	15 h	other:	not specified
Colophony 8050-09-7	EC20		3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
n-Hexane 110-54-3	EC 50	> 1 - 10 mg/l			OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
zinc oxide 1314-13-2	IC50	5,2 mg/l	3 h	not specified	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)
Cyclohexane 110-82-7	readily biodegradable	aerobic	77 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydrocarbon aliphatic C4-11 < 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)
n-Hexane 110-54-3	readily biodegradable, but failing 10-day window	aerobic	> 60 %	28 d	not specified

#### 12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Cyclohexane 110-82-7	167			Pimephales promelas	QSAR (Quantitative Structure Activity Relationship)

#### 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)
Cyclohexane 110-82-7	3,44	25 °C	QSAR (Quantitative Structure Activity Relationship)
Hydrocarbon aliphatic C4-11 < 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)
n-Hexane 110-54-3	4		not specified

#### 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.
Cyclohexane 110-82-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Colophony 8050-09-7	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.
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.

#### 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	1133
RID	1133
ADN	1133
IMDG	1133
IATA	1133

### 14.2. UN proper shipping name

ADR	ADHESIVES
RID	ADHESIVES
ADN	ADHESIVES
IMDG	ADHESIVES (Cyclohexane)
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	Environmentally Hazardous
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	78,2 %
(VOCV 814.018 VOC regulation CH)	

**15.2. Chemical safety assessment**

A chemical safety assessment has 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:

R11 Highly flammable.  
R36 Irritating to eyes.  
R38 Irritating to skin.  
R43 May cause sensitisation by skin contact.  
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R62 Possible risk of impaired fertility.  
R65 Harmful: may cause lung damage if swallowed.  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.  
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.  
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 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://mymsds.henkel.com/mymsds/.490394..en.ANNEX\\_DE.19414935.0.DE.pdf](http://mymsds.henkel.com/mymsds/.490394..en.ANNEX_DE.19414935.0.DE.pdf)  
Alternatively they can be accessed on the internet site [www.mymsds.henkel.com](http://www.mymsds.henkel.com) by entering number 490394.