



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

Page 1 of 21

TEROSON SB 2444

SDS No. : 76601
V013.1

Revision: 08.10.2018

printing date: 14.01.2021

Replaces version from: 27.06.2018

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

1.1. Product identifier

TEROSON SB 2444

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.

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.

Skin sensitizer Category 1

H317 May cause an allergic skin reaction.

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.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:**Contains**

Cyclohexane

Ethyl acetate

Colophony

Signal word:

Danger

Hazard statement:

H225 Highly flammable liquid and vapor.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statement:
Prevention**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
 No smoking.
 P261 Avoid breathing mist/spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/eye protection.

**Precautionary statement:
Response**

P370+P378 In case of fire: Use CO₂, dry chemical, or foam for extinction.

**Precautionary statement:
Storage**

P403+P235 Store in a well-ventilated place. Keep cool.

2.3. Other hazards

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

The solvent vapors are heavier than air and may collect in high concentrations at floor level.

Persons suffering from allergic reactions to colophony should avoid contact with the product.

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:

Polychloroprene

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Cyclohexane 110-82-7	203-806-2 01-2119463273-41	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
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
Hydrocarbon aliphatic C4-11 <0,1% benzene 64742-49-0	931-254-9 01-2119484651-34	10- < 20 %	Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Flam. Liq. 2 H225 Aquatic Chronic 2 H411
Coumarone-indene resins 63393-89-5		1- < 5 %	Eye Irrit. 2 H319
Colophony 8050-09-7	232-475-7 01-2119480418-32	1- < 3 %	Skin Sens. 1 H317
zinc oxide 1314-13-2	215-222-5 01-2119463881-32	0,25- < 2,5 %	Aquatic Chronic 1 H410 Aquatic Acute 1 H400
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
Disulfiram 97-77-8	202-607-8	0,01- < 0,025 %	Acute Tox. 4 H302 Acute Tox. 4 H332 Skin Sens. 1 H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 STOT RE 2 H373 M factor (Acute Aquat Tox): 10 M factor (Chron Aquat Tox): 10

**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

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

IF ON SKIN: Wash with plenty of soap and water.

In case of adverse health effects seek medical advice.

Eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

Vapors may cause drowsiness and dizziness.

SKIN: Rash, Urticaria.

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:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

Water jet (solvent-containing product).

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Avoid contact with skin and eyes.

Danger of slipping on spilled product.

Keep unprotected persons away.

6.2. Environmental precautions

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

Inform authorities in the event of product spillage to water courses or sewage systems.

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 open flames and sources of ignition.
Ground/bond container and receiving equipment.
Use explosion proof electric equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.

Hygiene measures:

Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.
Store in a cool, frost-free place.
Storage at 10 to 20°C is recommended.

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
Cyclohexane 110-82-7 [CYCLOHEXANE]	200	700	Time Weighted Average (TWA):	Indicative	ECLTV
Cyclohexane 110-82-7	200	700	Exposure limit(s):	4	TRGS 900
Cyclohexane 110-82-7			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Ethyl acetate 141-78-6 [ETHYL ACETATE]	200	734	Time Weighted Average (TWA):	Indicative	ECLTV
Ethyl acetate 141-78-6 [ETHYL ACETATE]	400	1.468	Short Term Exposure Limit (STEL):	Indicative	ECLTV
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
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
n-Hexane 110-54-3 [N-HEXANE]	20	72	Time Weighted Average (TWA):	Indicative	ECLTV
n-Hexane 110-54-3	50	180	Exposure limit(s):	8 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
n-Hexane 110-54-3			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Disulfiram 97-77-8		2	Exposure limit(s):	8	TRGS 900
Disulfiram 97-77-8			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	
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				
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		
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				
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
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	
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	
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	
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	
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	

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Cyclohexane 110-82-7	1,2-Cyclohexane diol, with hydrolysis	Creatinine in urine	Sampling time period is for long-term exposures, at the end of the shift after several preceding ones./ Sampling time period is at end of exposure or at end of shift.	150 mg/g	DE BGW		
n-Hexane 110-54-3	Hexane-2,5-dione plus 4,5-Dihydroxy-2-hexanone	Urine	Sampling time: End of shift.	5 mg/l	DE BAT		
n-Hexane 110-54-3	Hexane-2,5-dione plus 4,5-Dihydroxy-2-hexanone (with hydrolysis)	Urine	Sampling time: End of shift.	5 mg/l	DE BGW		

8.2. Exposure controls:**Engineering controls:**

Use only in well ventilated areas.

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).

This recommendation should be matched to local conditions.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR; ≥ 0.7 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR; ≥ 0.7 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Protective clothing that covers arms and legs.

Wear protective equipment.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).

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 liquid beige
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)	63,0 °C (145.4 °F)
Flash point	-24 °C (-11.2 °F); DIN 51755 Closed cup flash point
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	
lower	1,10 %(V)
upper	11,5 %(V)
Vapour pressure (20,0 °C (68 °F))	< 250 hPa
Vapour pressure (55 °C (131 °F))	450 mbar
Relative vapour density:	No data available / Not applicable
Density (20 °C (68 °F))	0,87 g/cm ³
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Partially soluble
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	> 120,0 °C (> 248 °F)
Viscosity (Brookfield; Instrument: RVT; 20,0 °C (68 °F); Spindle No: 4)	3.000 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	29,5 %

9.2. Other information

Flow cup viscosity (; Nozzle: 6 mm DIN EN ISO 2431; QP2017.1, QP1580.0; Running out time with flow cups)	115 s
Ignition temperature	> 200,0 °C (> 392 °F)

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with strong oxidants.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Heat, flames, sparks and other sources of ignition.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

No decomposition if used according to specifications.

SECTION 11: Toxicological information**General toxicological information:**

Persons suffering from allergic reactions to colophony should avoid contact with the product.

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
Cyclohexane 110-82-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Ethyl acetate 141-78-6	LD50	6.100 mg/kg	rat	not specified
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Coumarone-indene resins 63393-89-5	LD50	> 16.000 mg/kg	rat	not specified
Colophony 8050-09-7	LD50	2.800 mg/kg	rat	not specified
zinc oxide 1314-13-2	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
n-Hexane 110-54-3	LD50	16.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Disulfiram 97-77-8	LD50	> 1.860 mg/kg	rat	not specified

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
Cyclohexane 110-82-7	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Ethyl acetate 141-78-6	LD50	> 20.000 mg/kg	rabbit	Draize Test
Colophony 8050-09-7	LD50	> 2.000 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)
n-Hexane 110-54-3	LD50	> 2.000 mg/kg	rabbit	not specified
Disulfiram 97-77-8	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Cyclohexane 110-82-7	LC50	> 32,880 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Ethyl acetate 141-78-6	LC50	200 mg/l		1 h	rat	not specified
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	LC50	> 20 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)
n-Hexane 110-54-3	LC50		vapour	24 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Disulfiram 97-77-8	LC50	3.464 mg/l	dust/mist	4 h	rat	EPA OPP 81-3 (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
Cyclohexane 110-82-7	not irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)
Ethyl acetate 141-78-6	slightly irritating	24 h	rabbit	OECD Guideline 404 (Acute 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
Cyclohexane 110-82-7	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Ethyl acetate 141-78-6	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Colophony 8050-09-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
zinc oxide 1314-13-2	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
n-Hexane 110-54-3	not irritating		rabbit	not specified

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
Cyclohexane 110-82-7	not sensitising	Buehler test	guinea pig	EU Method B.6 (Skin Sensitisation)
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)
n-Hexane 110-54-3	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

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
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)
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)
Colophony 8050-09-7	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	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)
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)

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		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
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)
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)
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)
Disulfiram 97-77-8	NOAEL 0,84 mg/kg	oral: feed	52 weeks daily	dog	EPA OPP 83-1 (Chronic Toxicity)

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
Cyclohexane 110-82-7	LC50	4,53 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:
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	LC50	> 1 - 10 mg/l			OECD Guideline 203 (Fish, Acute Toxicity Test)
Coumarone-indene resins 63393-89-5	LC50	10.000 mg/l	96 h	not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
Colophony 8050-09-7	LC50		96 h	Pimephales promelas	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:
n-Hexane 110-54-3	LC50	> 1 - 10 mg/l			OECD Guideline 203 (Fish, Acute Toxicity Test)
Disulfiram 97-77-8	NOEC	0,0032 mg/l	10 d	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 210 (fish early lite stage toxicity test)
Disulfiram 97-77-8	LC50	0,067 mg/l	96 h	Lepomis macrochirus	

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
Cyclohexane 110-82-7	EC50	0,9 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)
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)
zinc oxide 1314-13-2	EC50	1 mg/l	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)
Disulfiram 97-77-8	EC50	0,24 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
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)
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)
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)
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)
n-Hexane 110-54-3	EC50	> 1 - 10 mg/l			OECD Guideline 201 (Alga, Growth Inhibition Test)
Disulfiram 97-77-8	EC50	1,8 mg/l	96 h	Chlorella pyrenoidosa	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
Cyclohexane 110-82-7	IC50	29 mg/l	15 h	other:	not specified
Ethyl acetate 141-78-6	EC10	2.900 mg/l	18 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm- Test)
Colophony 8050-09-7	EC20		3 h	activated sludge of a predominantly domestic sewage	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)
n-Hexane 110-54-3	EC 50	> 1 - 10 mg/l			OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Cyclohexane 110-82-7	readily biodegradable	aerobic	77 %	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)
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
Disulfiram 97-77-8		aerobic	20 - 40 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

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)
Ethyl acetate 141-78-6	30	3 d	22,5 °C	Leuciscus idus melanotus	other guideline:

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Cyclohexane 110-82-7	3,44	25 °C	QSAR (Quantitative Structure Activity Relationship)
Ethyl acetate 141-78-6	0,68	25 °C	EPA OPPTS 830.7560 (Partition Coefficient, n-octanol / H ₂ O, Generator Column Method)
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
Disulfiram 97-77-8	3,88		not specified

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Cyclohexane 110-82-7	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.
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.
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.
n-Hexane 110-54-3	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:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

080409

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information
14.1. UN number

ADR	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	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

Packed goods < 450 L (ADR) and < 30 L (IMDG) can be classified in packaging group III, based of the viscosity (ADR 2.2.3.1.4 und IMDG 2.3.2.2)

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 (VOCV 814.018 VOC regulation CH)	70,3 %
VOC content (2010/75/EU)	70,3 %

VOC Paints and Varnishes (EU):

Product (sub)category: This product is not a subject of the Directive 2004/42/EC

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 July 27, 2005) 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.

BG regulations, rules, infos:

BG data sheet: BGI 621 Solvents

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.
- H302 Harmful if swallowed.
- 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.
- H332 Harmful if inhaled.
- 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.

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
Alternatively they can be accessed on the internet site www.mymsds.henkel.com by entering number 490394.