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

SDS No. : 76601
V012.0

TEROSON SB 2444

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Replaces version from: 05.10.2016

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

1.1. Product identifier
TEROSON SB 2444

Contains:
Cyclohexane
Ethyl acetate

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.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
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:

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 Rosin. May produce an allergic reaction.

Precautionary statement: Prevention
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.
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.

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	265-151-9 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
zinc oxide 1314-13-2	215-222-5 01-2119463881-32	0,25- < 2,5 %	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
n-Hexane 110-54-3	203-777-6 01-2119480412-44	0,25- < 2,5 %	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
Rosin 8050-09-7	232-475-7 01-2119480418-32	0,1- < 1 %	Skin Sens. 1 H317
Disulfiram 97-77-8	202-607-8	100- < 250 PPM	Acute Tox. 4; Oral H302 STOT RE 2 H373 Skin Sens. 1 H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 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.

An allergic reaction cannot be excluded after repeated skin contact.

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/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Cyclohexane 110-82-7 [CYCLOHEXANE]	200	700	Time Weighted Average (TWA):	Indicative	ECTLV
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	400	1.500	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
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
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	ECTLV
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)					0,26 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 food	
Ethyl acetate 141-78-6	soil				0,24 mg/kg		
zinc oxide 1314-13-2	aqua (freshwater)					20,6 µg/L	
zinc oxide 1314-13-2	aqua (marine water)					6,1 µg/L	
zinc oxide 1314-13-2	sewage treatment plant (STP)					100 µg/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		
Rosin 8050-09-7	aqua (freshwater)					0,005 mg/L	
Rosin 8050-09-7	aqua (marine water)					0,0005 mg/L	
Rosin 8050-09-7	sediment (freshwater)				108 mg/kg		
Rosin 8050-09-7	sediment (marine water)				10,8 mg/kg		
Rosin 8050-09-7	soil				21,4 mg/kg		
Rosin 8050-09-7	sewage treatment plant (STP)					1000 mg/L	

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 bw/day	
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 bw/day	
Cyclohexane 110-82-7	General population	oral	Long term exposure - systemic effects		59,4 mg/kg bw/day	
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 bw/day	
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	
Hydrocarbon aliphatic C4-11 < 0,1% benzene	General population	dermal	Long term exposure -		1377 mg/kg bw/day	

64742-49-0			systemic effects			
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	Workers	Inhalation	Long term exposure - systemic effects		5306 mg/m3	
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	General population	Inhalation	Long term exposure - systemic effects		1137 mg/m3	
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	General population	oral	Long term exposure - systemic effects		1301 mg/kg bw/day	
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	Workers	dermal	Long term exposure - systemic effects		13964 mg/kg bw/day	
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 bw/day	
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 bw/day	
zinc oxide 1314-13-2	General population	oral	Long term exposure - systemic effects		0,83 mg/kg bw/day	
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 bw/day	
n-Hexane 110-54-3	General population	dermal	Long term exposure - systemic effects		5,3 mg/kg bw/day	
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 bw/day	
Rosin 8050-09-7	Workers	Inhalation	Long term exposure - systemic effects		176,32 mg/m3	
Rosin 8050-09-7	Workers	dermal	Long term exposure - systemic effects		25 mg/kg bw/day	
Rosin 8050-09-7	General population	Inhalation	Long term exposure - systemic effects		52,174 mg/m3	
Rosin 8050-09-7	General population	dermal	Long term exposure - systemic effects		15 mg/kg bw/day	
Rosin 8050-09-7	General population	oral	Long term exposure - systemic effects		15 mg/kg bw/day	

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Cyclohexane 110-82-7	Total 1,2-Cyclohexane diol	Creatinine in urine	Sampling time: End of shift at end of work week.	170 mg/g	DE BAT		
Cyclohexane 110-82-7	1,2-Cyclohexane diol, with hydrolysis	Creatinine in urine	Sampling time: End of shift at end of work week.	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
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
Decomposition temperature	> 120,0 °C (> 248 °F)
Vapour pressure (20,0 °C (68 °F))	< 250 hPa
Vapour pressure (55 °C (131 °F))	450 mbar
Density (20 °C (68 °F))	0,87 g/cm3
Bulk density	No data available / Not applicable
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
Solubility (qualitative) (Solvent: Water)	Partially soluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	
lower	1,10 %(V)
upper	11,5 %(V)
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Solid content	29,5 %
Oxidising properties	No data available / Not applicable

9.2. Other information

Flow cup viscosity (; ; Nozzle: 6 mm)	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

11.1. Information on toxicological effects

General toxicological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.
Persons suffering from allergic reactions to colophony should avoid contact with the product.

STOT-single exposure:
May cause drowsiness or dizziness.

Skin irritation:
Causes skin irritation.

Eye irritation:
Causes serious eye irritation.

Sensitizing:
An allergic reaction cannot be excluded after repeated skin contact.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Cyclohexane 110-82-7	LD50	> 5.000 mg/kg	oral		rat	not specified
Ethyl acetate 141-78-6	LD50	6.100 mg/kg	oral		rat	not specified
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Coumarone-indene resins 63393-89-5	LD50	> 16.000 mg/kg	oral		rat	not specified
zinc oxide 1314-13-2	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
n-Hexane 110-54-3	LD50	16.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Rosin 8050-09-7	LD50	2.800 mg/kg	oral		rat	not specified

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Cyclohexane 110-82-7	LC50	13,9 mg/l		4 h	rat	not specified
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	aerosol	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)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Cyclohexane 110-82-7	LD50	> 2.000 mg/kg	dermal		rabbit	not specified
Ethyl acetate 141-78-6	LD50	> 20.000 mg/kg	dermal		rabbit	Draize Test
zinc oxide 1314-13-2	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
n-Hexane 110-54-3	LD50	> 2.000 mg/kg	dermal		rabbit	not specified
Rosin 8050-09-7	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
Disulfiram 97-77-8	LD50	> 2.000 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethyl acetate 141-78-6	slightly irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
zinc oxide 1314-13-2	not irritating		rabbit	not specified
Rosin 8050-09-7	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components 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)
zinc oxide 1314-13-2	slightly irritating		rabbit	not specified
n-Hexane 110-54-3	not irritating		rabbit	not specified
Rosin 8050-09-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components 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)
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:

Hazardous components 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		not specified
Ethyl acetate 141-78-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Ethyl acetate 141-78-6	negative	oral: gavage		hamster, Chinese	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
zinc oxide 1314-13-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
n-Hexane 110-54-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
n-Hexane 110-54-3	negative	inhalation: vapour		mouse	not specified
	negative	inhalation: vapour		rat	not specified
Rosin 8050-09-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity:

Hazardous components CAS-No.	Result	Species	Sex	Exposure timeFrequency of treatment	Route of application	Method
n-Hexane 110-54-3		mouse	female	2 y 6 h/d; 5 d/w	inhalation: vapour	OECD Guideline 451 (Carcinogenicity Studies)

Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
Ethyl acetate 141-78-6	NOAEL P = 1.500 mg/kg	other inhalation: vapour	94 d	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	10 w	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Ethyl acetate 141-78-6	NOAEL=900 mg/kg	oral: gavage	90 ddaily	rat	EPA OTS 795.2600 (Subchronic Oral Toxicity Test)
Ethyl acetate 141-78-6	NOAEL=1,28 mg/l	inhalation	94 dcontinuous	rat	EPA OTS 798.2450 (90-Day Inhalation Toxicity)
n-Hexane 110-54-3	NOAEL=586 mg/kg	oral: gavage	90 d5 d/w	rat	not specified
n-Hexane 110-54-3	NOAEL=500 ppm	inhalation: vapour	90 d6 h/d; 5 d/w	mouse	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)

SECTION 12: Ecological information

General ecological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.
Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Ecotoxicity:
Very toxic to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Cyclohexane 110-82-7	LC50	4,53 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cyclohexane 110-82-7	EC50	0,9 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cyclohexane 110-82-7	EC50	9,317 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	0,94 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cyclohexane 110-82-7	IC50	29 mg/l	Bacteria	15 h	other:	not specified
Ethyl acetate 141-78-6	LC50	270 mg/l	Fish	48 h	Leuciscus idus melanotus	DIN 38412-15
Ethyl acetate 141-78-6	EC50	164 mg/l	Daphnia	48 h	Daphnia cucullata	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethyl acetate 141-78-6	EC50	> 2.000 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	2.000 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethyl acetate 141-78-6	EC10	2.900 mg/l	Bacteria	18 h		not specified
Ethyl acetate 141-78-6	NOEC	2,4 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	LC50	> 1 - 10 mg/l	Fish			OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	EC50	3 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	EC50	> 1 - 10 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)
Coumarone-indene resins 63393-89-5	LC50	10.000 mg/l	Fish	96 h	not specified	not specified
zinc oxide 1314-13-2	LC50	> 1.000 mg/l	Fish		Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
zinc oxide 1314-13-2	NOEC	0,017 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	0,17 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
zinc oxide 1314-13-2	NOEC	500 mg/l	Bacteria			not specified
n-Hexane 110-54-3	LC50	> 1 - 10 mg/l	Fish			OECD Guideline 203 (Fish, Acute Toxicity Test)
n-Hexane 110-54-3	EC50	2,1 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
n-Hexane 110-54-3	EC50	> 1 - 10 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)
n-Hexane 110-54-3	EC 50	> 1 - 10 mg/l	Bacteria			OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Rosin 8050-09-7	LC50	> 1.000 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute

						Toxicity Test)
Rosin 8050-09-7	EC50	911 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Rosin 8050-09-7	EC50	> 100 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
Disulfiram 97-77-8	NOEC	0,0032 mg/l	Fish	10 d	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 210 (fish early lite stage toxicity test)
	LC50	0,067 mg/l	Fish	96 h	Lepomis macrochirus	
Disulfiram 97-77-8	EC50	0,24 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Disulfiram 97-77-8	EC50	1,8 mg/l	Algae	96 h	Chlorella pyrenoidosa	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Cyclohexane 110-82-7	readily biodegradable	aerobic	77 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Ethyl acetate 141-78-6	readily biodegradable	aerobic	100 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Hydrocarbon aliphatic C4-11 < 0,1% benzene 64742-49-0	readily biodegradable	aerobic	89 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
n-Hexane 110-54-3	readily biodegradable, but failing 10-day window	aerobic	> 60 %	not specified
Rosin 8050-09-7		aerobic	36 - 46 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Disulfiram 97-77-8		aerobic	20 - 40 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Cyclohexane 110-82-7		167		Pimephales promelas		QSAR (Quantitative Structure Activity Relationship)
Cyclohexane 110-82-7	3,44				25 °C	QSAR (Quantitative Structure Activity Relationship)
Ethyl acetate 141-78-6	0,6					OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask 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)
n-Hexane 110-54-3	4					not specified
Rosin 8050-09-7	3 - 6,2					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Disulfiram 97-77-8	3,88					not specified

12.5. Results of PBT and vPvB assessment

Hazardous components **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.
zinc oxide 1314-13-2	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.
Rosin 8050-09-7	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

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.

08 04 09 Waste adhesives and sealants containing organic solvents or other dangerous substances

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	III
RID	III
ADN	III
IMDG	III
IATA	III

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	not applicable Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	Transport in accordance with 2.3.2.5 of the IMDG Code.
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 (VOCV 814.018 VOC regulation CH)	70,4 %

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