

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

Page 1 of 25

Pattex Kraftkleber Classic

SDS No. : 738723 V001.1 Revision: 14.10.2022 printing date: 15.02.2023 Replaces version from: 07.06.2022

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

1.1. Product identifier

Pattex Kraftkleber Classic

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 Ltd Adhesives Wood Lane End HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):	
Flammable liquids	Category 2
H225 Highly flammable liquid and vapour.	
Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central nervous system	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	
 Serious eye irritation H319 Causes serious eye irritation. Specific target organ toxicity - single exposure H336 May cause drowsiness or dizziness. Target organ: Central nervous system Chronic hazards to the aquatic environment H411 Toxic to aquatic life with long lasting effects. 	Category 2 Category 3 Category 2

2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
Contains	Ethyl acetate
	Methylcyclohexane
Signal word:	Danger
Hazard statement:	 H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
Supplemental information	Contains: rosin May produce an allergic reaction.
Precautionary statement:	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.
Precautionary statement: Prevention	 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing mist/vapours. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection.
Precautionary statement: Storage	P403 Store in a well-ventilated place.
Precautionary statement: Disposal	P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards

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

Pregnant women should absolutely avoid inhalation and skin contact.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration >= 0,1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in concentration \geq the concentration limit that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

Hazardous components CAS-No. EC Number BEACUL Bog No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
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		EU OEL
Methylcyclohexane 108-87-2 203-624-3	10- < 23,5 %	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0 926-605-8 01-2119486291-36	5- < 10 %	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411		
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n- hexane 921-024-6 01-2119475514-35	1-< 5%	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411		
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0 927-510-4 01-2119475515-33	1- < 5 %	Asp. Tox. 1, H304 Skin Irrit. 2, H315 Flam. Liq. 2, H225 STOT SE 3, Inhalation, H336 Aquatic Chronic 2, H411	inhalation:ATE = 23,31 mg/l;	
Hydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0 931-254-9 01-2119484651-34	1- < 5 %	Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Flam. Liq. 2, H225 Aquatic Chronic 2, H411		
rosin 8050-09-7 232-475-7 01-2119480418-32	0,1-< 1 %	Skin Sens. 1, H317		
zinc oxide 1314-13-2 215-222-5 01-2119463881-32	0,1- 0,5 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5 271-867-2 01-2119496062-39	0,1-< 0,3 %	Repr. 2, H361d Aquatic Chronic 4, H413		
Disulfiram 97-77-8 202-607-8	0,01- 0,05 %	Acute Tox. 4, Oral, H302 Acute Tox. 4, Inhalation, H332 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 STOT RE 2, H373	M acute = 10 M chronic = 10 ===== oral:ATE = 1.861 mg/kg	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation: Move to fresh air, consult doctor if complaint persists.

Skin contact:

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

Eye contact:

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

Ingestion:

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

4.2. Most important symptoms and effects, both acute and delayed SKIN: Redness, inflammation.

Causes serious eye irritation.

Vapors may cause drowsiness and dizziness.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

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

Extinguishing media which must not be used for safety reasons: High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

5.3. Advice for firefighters

Wear 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. Avoid contact with skin and eyes. Ensure adequate ventilation. Danger of slipping on spilled product.

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.

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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. 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. Avoid skin and eye contact.

Hygiene measures:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in original container. Store in a cool place, max. storage temperature 30°C.

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

7.3. Specific end use(**s**) Contact adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
		periou	mg/l	ppm	mg/kg	others	
Ethyl acetate	aqua		0,24 mg/l	1.1			
141-78-6	(freshwater)						
Ethyl acetate	aqua (marine		0,024 mg/l				
141-78-6	water)						
Ethyl acetate	aqua		1,65 mg/l				
141-78-6	(intermittent						
Edual acceleta	releases)		(50				
141 78 6	sewage		650 mg/1				
141-70-0	(STP)						
Ethyl acetate	sediment				1.15 mg/kg		
141-78-6	(freshwater)				1,10 11.6 11.6		
Ethyl acetate	sediment				0,115		
141-78-6	(marine water)				mg/kg		
Ethyl acetate	Air						no hazard identified
141-78-6							
Ethyl acetate	Soil				0,148		
141-78-6					mg/kg		
Ethyl acetate	oral				200 mg/kg		
141-78-6							
rosin	aqua		0,002 mg/l				
8050-09-7	(freshwater)		0.0002				
rosin 2050 00 7	aqua (marine		0,0002 mg/l				
8030-09-7	water)	-	IIIg/1		0.007		
8050-09-7	(freshwater)				0,007 mg/kg		
rosin	(incsitwater)				0.001		
8050-09-7	(marine water)				mg/kg		
rosin	Soil				0 mg/kg		
8050-09-7	Son				0 1118/118		
rosin	sewage		1000 mg/l				
8050-09-7	treatment plant		e				
	(STP)						
rosin	aqua		0,016 mg/l				
8050-09-7	(intermittent						
	releases)						
zinc oxide	aqua		0,0206				
1314-13-2	(freshwater)	-	mg/l				
Zinc oxide	aqua (marine		0,0061				
1314-13-2	water)	-	mg/1				
21nc 0xide 1314 13 2	sewage		0,1 mg/1				
1514-15-2	(STP)						
zinc oxide	sediment				117.8		
1314-13-2	(freshwater)				mg/kg		
zinc oxide	sediment				56,5 mg/kg		
1314-13-2	(marine water)						
zinc oxide	Soil				35,6 mg/kg		
1314-13-2							
zinc oxide	Air						no hazard identified
1314-13-2							
zinc oxide	oral						no potential for
1314-13-2							bioaccumulation
Phenol, 4-methyl-, reaction products with	aqua		0,01 mg/l				
dicyclopentadiene and isobutylene	(freshwater)						
08010-51-5 Dhanal 4 mathed an atting and hasts with	(:		0.002				
diavalopantadiana and isobutylona	aqua (marine		0,002 mg/1				
68610-51-5	water)						
Phenol 4-methyl- reaction products with	sewage		100 mg/l				
dicyclopentadiene and isobutylene	treatment plant		100 mg/1				
68610-51-5	(STP)						
Phenol, 4-methyl-, reaction products with	sediment		1	1	426.26		
dicyclopentadiene and isobutylene	(freshwater)				mg/kg		
68610-51-5							
Phenol, 4-methyl-, reaction products with	sediment				85,25		
dicyclopentadiene and isobutylene	(marine water)				mg/kg		
68610-51-5							
Phenol, 4-methyl-, reaction products with	Soil				85,16		

dicyclopentadiene and isobutylene 68610-51-5			mg/kg	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	oral		1,7 mg/kg	
68610-51-5				

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	no hazard identified
Ethyl acetate 141-78-6	Workers	inhalation	Acute/short term exposure - local effects		1468 mg/m3	no hazard identified
Ethyl acetate 141-78-6	Workers	dermal	Long term exposure - systemic effects		63 mg/kg	no hazard identified
Ethyl acetate 141-78-6	Workers	inhalation	Long term exposure - systemic effects		734 mg/m3	no hazard identified
Ethyl acetate 141-78-6	Workers	inhalation	Long term exposure - local effects		734 mg/m3	no hazard identified
Ethyl acetate 141-78-6	General population	Inhalation	Acute/short term exposure - systemic effects		734 mg/m3	no hazard identified
Ethyl acetate 141-78-6	General population	inhalation	Acute/short term exposure - local effects		734 mg/m3	no hazard identified
Ethyl acetate 141-78-6	General population	dermal	Long term exposure - systemic effects		37 mg/kg	no hazard identified
Ethyl acetate 141-78-6	General population	inhalation	Long term exposure - systemic effects		367 mg/m3	no hazard identified
Ethyl acetate 141-78-6	General population	oral	Long term exposure - systemic effects		4,5 mg/kg	no hazard identified
Ethyl acetate 141-78-6	General population	inhalation	Long term exposure - local effects		367 mg/m3	no hazard identified
Methylcyclohexane 108-87-2	Workers	dermal	Long term exposure - systemic effects		773 mg/kg	
Methylcyclohexane 108-87-2	Workers	Inhalation	Long term exposure - systemic effects		2035 mg/m3	
Methylcyclohexane 108-87-2	General population	dermal	Long term exposure - systemic effects		699 mg/kg	
Methylcyclohexane 108-87-2	General population	Inhalation	Long term exposure - systemic effects		608 mg/m3	
Methylcyclohexane 108-87-2	General population	oral	Long term exposure - systemic effects		699 mg/kg	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Workers	dermal	Long term exposure - systemic effects		13964 mg/kg	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Workers	inhalation	Long term exposure - systemic effects		5306 mg/m3	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	dermal	Long term exposure - systemic effects		1377 mg/kg	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	inhalation	Long term exposure - systemic effects		1131 mg/m3	
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	oral	Long term exposure - systemic effects		1301 mg/kg	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	Workers	dermal	Long term exposure - systemic effects		773 mg/kg	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	Workers	inhalation	Long term exposure - systemic effects		2035 mg/m3	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	General population	dermal	Long term exposure -		699 mg/kg	

			systemic effects		
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	General population	inhalation	Long term exposure - systemic effects	608 mg/m3	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	General population	oral	Long term exposure - systemic effects	699 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	Workers	dermal	Long term exposure - systemic effects	300 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	Workers	inhalation	Long term exposure - systemic effects	2085 mg/m3	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	General population	dermal	Long term exposure - systemic effects	149 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	General population	oral	Long term exposure - systemic effects	149 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	General population	inhalation	Long term exposure - systemic effects	447 mg/m3	
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	Workers	dermal	Long term exposure - systemic effects	13964 mg/kg	
Naphtha (petroleum), hydrotreated light, < 0,1% benzene 64742-49-0	General population	Inhalation	Long term exposure - systemic effects	1131 mg/m3	
Naphtha (petroleum), hydrotreated light, < 0,1% benzene 64742-49-0	General population	dermal	Long term exposure - systemic effects	1377 mg/kg	
Naphtha (petroleum), hydrotreated light, < 0,1% benzene 64742-49-0	General population	oral	Long term exposure - systemic effects	1301 mg/kg	
rosin 8050-09-7	Workers	inhalation	Long term exposure - local effects	10 mg/m3	
rosin 8050-09-7	Workers	dermal	Long term exposure - systemic effects	2,131 mg/kg	
rosin 8050-09-7	General population	dermal	Long term exposure - systemic effects	1,065 mg/kg	
rosin 8050-09-7	General population	oral	Long term exposure - systemic effects	1,065 mg/kg	
zinc oxide 1314-13-2	Workers	Inhalation	Long term exposure - systemic effects	5 mg/m3	no hazard identified
zinc oxide 1314-13-2	Workers	dermal	Long term exposure - systemic effects	83 mg/kg	no hazard identified
zinc oxide 1314-13-2	Workers	inhalation	Long term exposure - local effects	0,5 mg/m3	no hazard identified
zinc oxide 1314-13-2	General population	Inhalation	Long term exposure - systemic effects	2,5 mg/m3	no hazard identified
zinc oxide 1314-13-2	General population	dermal	Long term exposure - systemic effects	83 mg/kg	no hazard identified
zinc oxide 1314-13-2	General population	oral	Long term exposure - systemic effects	0,83 mg/kg	no hazard identified
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	Workers	dermal	Long term exposure - systemic effects	0,42 mg/kg	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	Workers	inhalation	Long term exposure - systemic effects	0,29 mg/m3	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	General population	dermal	Long term exposure - systemic effects	0,21 mg/kg	

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	General population	inhalation	Long term exposure - systemic effects	0,07 mg/m3	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	General population	oral	Long term exposure - systemic effects	0,04 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

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

Hand protection:

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

In the case of longer contact protective gloves made from nitrile rubber are recommended according to EN 374. material thickness > 0.4 mm

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

Eye protection: Goggles which can be tightly sealed. Protective eye equipment should conform to EN166.

Skin protection: Suitable protective clothing Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Delivery form	liquid
Colour	beige
Odor	typical
Melting point	Not applicable, Product is a liquid
Initial boiling point	75 °C (167 °F)
Flammability	Currently under determination
Explosive limits	Currently under determination
Flash point	< -10 °C (< 14 °F)
Auto-ignition temperature	Currently under determination
Decomposition temperature	Currently under determination
рН	Not applicable, Product is non-polar/aprotic.
Viscosity (kinematic)	Currently under determination
Viscosity, dynamic	1.500 - 2.000 mPa.s TE1002-208; Viscosity by Brookfield
(; 20 °C (68 °F))	
Solubility (qualitative)	Currently under determination
Partition coefficient: n-octanol/water	Not applicable
	Mixture
Vapour pressure	Currently under determination

Density (20 °C (68 °F)) Relative vapour density: Particle characteristics 0,84 - 0,88 g/cm3 QP2107.1; Density

Currently under determination Not applicable Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity None if used for intended purpose.

10.2. Chemical stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions See section reactivity

10.4. Conditions to avoid None if used for intended purpose.

10.5. Incompatible materials None if used properly.

10.6. Hazardous decomposition products None known.

SECTION 11: Toxicological information

General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

1.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Ethyl acetate	LD50	6.100 mg/kg	rat	not specified
141-78-6				
Methylcyclohexane	LD50	> 3.200 mg/kg	rat	not specified
108-87-2				
Hydrocarbons, C6-C7,	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
isoalkanes, cyclics, <5%				
n-hexane				
92128-66-0				
Hydrocarbons, C6-C7, n-	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
alkanes, isoalkanes,				
cyclics, <5% n-hexane				
Hydrocarbons, C7, n-	LD50	> 5.840 mg/kg	rat	not specified
alkanes, isoalkanes,				
cyclics				
64742-49-0				
Hydrocarbons, C6,	LD50	> 16.750 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
isoalkanes, <5% n-hexane				Toxicity)
64742-49-0				
rosin	LD50	2.800 mg/kg	rat	not specified
8050-09-7				
zinc oxide	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
1314-13-2				Toxicity)
Phenol, 4-methyl-,	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
reaction products with				
dicyclopentadiene and				
isobutylene				
68610-51-5				
Disulfiram	LD50	> 1.860 mg/kg	rat	not specified
97-77-8				
Disulfiram	Acute	1.861 mg/kg		Expert judgement
97-77-8	toxicity			
	estimate			
	(ATE)			

Acute dermal toxicity:

Hazardous substances	Value	Value	Species	Method
CAS-NO.	type			
Ethyl acetate	LD50	> 20.000 mg/kg	rabbit	Draize Test
141-78-6				
Methylcyclohexane	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
108-87-2				
Hydrocarbons, C6-C7,	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
isoalkanes, cyclics, <5%				
n-hexane				
92128-66-0				
Hydrocarbons, C6-C7, n-	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
alkanes, isoalkanes,		0.0		
cvclics. <5% n-hexane				
Hydrocarbons, C7, n-	LD50	> 2.800 mg/kg	rat	other guideline:
alkanes, isoalkanes,		6 6		
cyclics				
64742-49-0				
Hydrocarbons, C6.	LD50	> 3.350 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute
isoalkanes <5% n-hexane				Dermal Toxicity)
64742-49-0				
rosin	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
8050-09-7	2200	210000 mg/ng		OLOD Guideline (OL (Freue Defining Fosterly)
zinc oxide	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
1314-13-2		88		
Phenol, 4-methyl-,	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
reaction products with		00		
dicyclopentadiene and				
isobutylene				
68610-51-5				
Disulfiram	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
97-77-8				· · · · · · · · · · · · · · · · · · ·

Acute inhalative toxicity:

Hazardous substances CAS-No.Value typeValue valueTest atmosphere imeExposure timeSpecies timeMethodCAS-No.typeLC0> 22,5 mg/ldust/mist6 hratother guideline:141-78-6LC0> 22,5 mg/ldust/mist6 hratother guideline:141-78-6LC50> 22,5 mg/ldust/mist6 hratother guideline:141-78-6LC50> 26,3 mg/lvapour1 hratnot specified108-87-2LC50> 25,2 mg/lvapour4 hratnot specifiedHydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, 5% n-hexaneLC50> 25,2 mg/lvapour4 hratHydrocarbons, C7, n- alkanes, isoalkanes, cyclicsLC50> 23,3 mg/lvapour4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)64742-49-0Acute (ATE)25,3 1 mg/lvapour4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)45742-49-0LC50259,354 mg/lvapour4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)45742-49-0LC50> 5,7 mg/ldust/mist4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)20> 165 mg/ldust/mist4 hratnot specified411-72LC50> 5,7 mg/ldust/mist4 hratnot specified1314-13					_		
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
Ethyl acetate 141-78-6LC0 $> 22,5 \text{ mg/l}$ dust/mist6 hratother guideline: other guideline:Ethyl acetate 141-78-6LC50 $> 22,5 \text{ mg/l}$ dust/mist6 hratother guideline:Methylcyclohexane 108-87-2LC50 $> 26,3 \text{ mg/l}$ vapour1 hratnot specifiedHydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexaneLC50 $> 25,2 \text{ mg/l}$ vapour4 hratnot specifiedHydrocarbons, C7, n- alkanes, isoalkanes, cyclics, <5% n-hexaneLC50 $> 23,3 \text{ mg/l}$ vapour4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)44742-49-0Acute (ATE)23,31 mg/lvapour4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)Hydrocarbons, C6, isoalkanes, cyclicsLC50259,354 mg/lvapour4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)Hydrocarbons, C6, isoalkanes, <5% n-hexaneLC50259,354 mg/lvapour4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)1314-13-2LC50> 5,7 mg/ldust/mist4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)Phenol, 4-methyl-, reaction products with disconcerotal and and conclose with disconcerotal and and conclose with disconcerotal and and conclose with disconcerotal and and conclose with disconcerotal and and1 hrat <t< th=""><th>CAS-No.</th><th>type</th><th></th><th></th><th>time</th><th></th><th></th></t<>	CAS-No.	type			time		
141-78-6LC50> 22,5 mg/ldust/mist6 hratother guideline:141-78-6LC50> 26,3 mg/lvapour1 hratnot specified108-87-2LC50> 26,2 mg/lvapour1 hratnot specifiedHydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane	Ethyl acetate	LC0	> 22,5 mg/l	dust/mist	6 h	rat	other guideline:
Ethyl acetate 141-78-6LC50> 22,5 mg/ldust/mist6 hratother guideline: not specifiedMethylcyclohexane 108-87-2LC50> 26,3 mg/lvapour1 hratnot specifiedHydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane	141-78-6		Ū.				-
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$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	141-78-6						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Methylcyclohexane	LC50	> 26,3 mg/l	vapour	1 h	rat	not specified
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	108-87-2		_	-			_
alkanes, isoalkanes, cyclics, <5% n-hexane	Hydrocarbons, C6-C7, n-	LC50	> 25,2 mg/l	vapour	4 h	rat	not specified
$\begin{array}{c c} cyclics, <5\% \ n-hexane \\ Hydrocarbons, C7, n-\\ alkanes, isoalkanes, cyclics \\ 64742-49-0 \\ Hydrocarbons, C7, n-\\ alkanes, isoalkanes, cyclics \\ 64742-49-0 \\ Hydrocarbons, C7, n-\\ alkanes, isoalkanes, cyclics \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, C6, \\ isoalkanes, <5\% \ n-hexane \\ 64742-49-0 \\ Hydrocarbons, <$	alkanes, isoalkanes,						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	cyclics, <5% n-hexane						
ałkanes, isoalkanes, cyclics Guideline 403 (Acute 64742-49-0 Acute 23,31 mg/l Inhalation Toxicity) Hydrocarbons, C7, n- Acute 23,31 mg/l Expert judgement alkanes, isoalkanes, cyclics CATE2 259,354 mg/l Vapour 4 h rat equivalent or similar to OECD Hydrocarbons, C6, isoalkanes, <5% n-hexane	Hydrocarbons, C7, n-	LC50	> 23,3 mg/l	vapour	4 h	rat	equivalent or similar to OECD
cyclics 64742-49-0Acute toxicity23,31 mg/lInhalation Toxicity)Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 64742-49-0Acute toxicity estimate (ATE)23,31 mg/lExpert judgementHydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0LC50259,354 mg/lvapour4 hratequivalent or similar to OECD Guideline Inhalation Toxicity)Zinc oxide 1314-13-2LC50> 5,7 mg/ldust/mist4 hratequivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)Phenol, 4-methyl-, reaction products with discublementationa andLC50> 165 mg/ldust/mist4 hratnot specified	alkanes, isoalkanes,		_	-			Guideline 403 (Acute
64742-49-0 Acute 23,31 mg/l Expert judgement Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics Acute toxicity estimate 23,31 mg/l Expert judgement 64742-49-0 (ATE) Phydrocarbons, C6, isoalkanes, <5% n-hexane	cyclics						Inhalation Toxicity)
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alkanes, isoalkanes, cyclics toxicity estimate Image: cyclics Ima	Hydrocarbons, C7, n-	Acute	23,31 mg/l				Expert judgement
cyclics estimate (ATE) estimate (ATE) estimate (ATE) estimate (ATE) Hydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0 LC50 259,354 mg/l vapour 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) zinc oxide LC50 > 5,7 mg/l dust/mist 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) Phenol, 4-methyl-, reaction products with discustoperatediane and LC50 > 165 mg/l dust/mist 4 h rat not specified	alkanes, isoalkanes,	toxicity	-				
64742-49-0 (ATE) vapour 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) isoalkanes, <5% n-hexane 64742-49-0 LC50 259,354 mg/l vapour 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) zinc oxide LC50 > 5,7 mg/l dust/mist 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) Phenol, 4-methyl-, reaction products with discustoperatediane and LC50 > 165 mg/l dust/mist 4 h rat not specified	cyclics	estimate					
Hydrocarbons, C6, isoalkanes, <5% n-hexane LC50 259,354 mg/l vapour 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) zinc oxide LC50 > 5,7 mg/l dust/mist 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) 2114-13-2 LC50 > 5,7 mg/l dust/mist 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) Phenol, 4-methyl-, reaction products with discustoperatediane and LC50 > 165 mg/l dust/mist 4 h rat not specified	64742-49-0	(ATE)					
isoalkanes, <5% n-hexane Guideline 403 (Acute 64742-49-0 LC50 > 5,7 mg/l dust/mist 4 h rat equivalent or similar to OECD 1314-13-2 Similar to 0 > 5,7 mg/l dust/mist 4 h rat equivalent or similar to OECD Phenol, 4-methyl-, reaction products with discustoperatediane and LC50 > 165 mg/l dust/mist 4 h rat not specified	Hydrocarbons, C6,	LC50	259.354 mg/l	vapour	4 h	rat	equivalent or similar to OECD
64742-49-0 Inhalation Toxicity) zinc oxide LC50 > 5,7 mg/l dust/mist 4 h rat equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) Phenol, 4-methyl-, reaction products with disculparatediane and LC50 > 165 mg/l dust/mist 4 h rat not specified	isoalkanes. <5% n-hexane		8				Guideline 403 (Acute
zinc oxide 1314-13-2LC50> 5,7 mg/ldust/mist4 hratequivalent or similar to OECD Guideline Inhalation Toxicity)Phenol, 4-methyl-, reaction products with discupantationa andLC50> 165 mg/ldust/mist4 hratnot specified	64742-49-0						Inhalation Toxicity)
1314-13-2 Image: Constraint of the second	zinc oxide	LC50	> 5.7 mg/l	dust/mist	4 h	rat	equivalent or similar to OECD
Phenol, 4-methyl-, reaction products with discussionary and LC50 > 165 mg/l dust/mist 4 h rat not specified	1314-13-2		,				Guideline 403 (Acute
Phenol, 4-methyl-, reaction products with discussionartadiana and LC50 > 165 mg/l dust/mist 4 h rat not specified	1011 10 2						Inhalation Toxicity)
reaction products with	Phenol, 4-methyl-,	LC50	> 165 mg/l	dust/mist	4 h	rat	not specified
diguelon particular and	reaction products with						·····
	dicyclopentadiene and						
isobutylene	isobutylene						
68610-51-5	68610-51-5						
Disulfirm I LC50 3.464 mg/ dust/mist / 4 h rat EDA ODD 81.3 (Acuta	Disulfiram	LC50	3.464 mg/l	dust/mist	4 h	rat	EPA OPP 81-3 (Acute
Jointain Loss Storngr dustringt in the Life Off Storn toxicity)	97-77-8	1050	5,-10- IIIg/1	aust/mist	7 11	iu	inhalation toxicity)

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

Skin corrosion/irritation:

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Ethyl acetate	slightly	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
141-78-6	irritating			Dermal Irritation / Corrosion)
Methylcyclohexane	not irritating	24 h	rabbit	Draize Test
108-87-2				
Hydrocarbons, C6-C7,	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
isoalkanes, cyclics, <5%				
n-hexane				
92128-66-0				
Hydrocarbons, C7, n-	irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
alkanes, isoalkanes,				Dermal Irritation / Corrosion)
cyclics				
64742-49-0				
rosin	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
8050-09-7				
zinc oxide	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
1314-13-2				
Phenol, 4-methyl-,	not irritating	4 h	rabbit	EPA Guideline
reaction products with				
dicyclopentadiene and				
isobutylene				
68610-51-5				

Serious eye damage/irritation:

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

Hazardous substances	Result	Exposure	Species	Method
Ethyl acetate 141-78-6	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methylcyclohexane 108-87-2	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane 92128-66-0	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 64742-49-0	not irritating		rabbit	FDA Guideline
Hydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
rosin 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)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	slightly irritating	24 h	rabbit	EPA Guideline

Respiratory or skin sensitization:

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

Hazardous substances	Result	Test type	Species	Method
CAS-No.				
Ethyl acetate	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
141-78-6		test		
Methylcyclohexane	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
108-87-2				
Hydrocarbons, C7, n-	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
alkanes, isoalkanes,		test		
cyclics				
64742-49-0				
Hydrocarbons, C6,	not sensitising	Mouse local lymphnode	mouse	equivalent or similar to OECD Guideline
isoalkanes, <5% n-hexane		assay (LLNA)		429 (Skin Sensitisation: Local Lymph
64742-49-0				Node Assay)
zinc oxide	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
1314-13-2		test		
Phenol, 4-methyl-,	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
reaction products with		test		
dicyclopentadiene and				
isobutylene				
68610-51-5				

Germ cell mutagenicity:

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

CAS-No. Route of administration activation / Exposure time equivalent or similar to OECI Guideline 471 (Bacterial Reverse Mutation Assay) Ethyl acetate negative bacterial reverse mutation assay (e.g Ames test) with and without equivalent or similar to OECI Guideline 471 (Bacterial Reverse Mutation Assay) Ethyl acetate negative in vitro mammalian with and without equivalent or similar to OECI Guideline 471 (Bacterial Reverse Mutation Assay)
Ethyl acetate negative bacterial reverse mutation assay (e.g Ames test) with and without equivalent or similar to OECI Guideline 471 (Bacterial Reverse Mutation Assay) Ethyl acetate negative in vitro mammalian in vitro mammalian with and without
141-78-6 mutation assay (e.g Ames test) Guideline 471 (Bacterial Reverse Mutation Assay) Ethyl acetate negative in vitro mammalian with and without
Ames test) Reverse Mutation Assay) Ethyl acetate negative in vitro mammalian with and without equivalent or similar to OECI
Ethyl acetate negative in vitro mammalian with and without equivalent or similar to OEC
141-78-6 Guideline 473 (In vitro
aberration test Mammalian Chromosome
Aberration Test)
Methylcyclohexane negative bacterial reverse with and without OECD Guideline 471
108-87-2 mutation assay (e.g (Bacterial Reverse Mutation
Ames test) Assay)
Methylcyclohexane negative in vitro mammalian with and without OECD Guideline 473 (In vitro
108-87-2 chromosome Mammalian Chromosome
aberration test Aberration 1est)
Methylcyclonexane negative mammalian cell with and without UECD Guideline 476 (in vitro
108-87-2 gene mutation assay Mammanan Cell Gene
Hydrocarbons C6 nagative mammalian call with and without OECD Guidalina 476 (In vitr
incollegative intrainfailtain etc. With and without OEE Outlearner 470 (in vite
Solution assay gene induction assay Manimatian Con Cone (64742-49-0)
Hydrocarbons C6 negative in vitro mammalian with and without OECD Guideline 473 (In vitro
isoalkanes. <5% n-hexane chromosome Mammalian Chromosome
64742-49-0 aberration test Aberration Test)
Hydrocarbons, C6, negative bacterial reverse with and without OECD Guideline 471
isoalkanes, <5% n-hexane mutation assay (e.g (Bacterial Reverse Mutation
64742-49-0 Ames test) Assay)
rosin negative bacterial reverse with and without OECD Guideline 471
8050-09-7 mutation assay (e.g (Bacterial Reverse Mutation
Ames test) Assay)
zinc oxide negative bacterial reverse with and without OECD Guideline 471
1314-13-2 mutation assay (e.g (Bacterial Reverse Mutation
Ames test) Assay
zinc oxide negative in vitro mammalian with and without OECD Guideline 473 (In vitro
1314-13-2 Chromosome Mammalian Chromosome
aberration test Acertation 1981)
2116 Oklee annoiguous manimanan cen with and without OECD Guideline 470 (in vite
gene initiation assay Manimatian Con One Mutation Text
Phenol 4-methyl- negative bacterial reverse with and without OFCD Guideline 471
reaction products with mutation assay (e.g. (Bacterial Reverse Mutation
dicyclopentadiene and Ames test) Assav)
isobutylene
68610-51-5
Phenol, 4-methyl-, negative in vitro mammalian with and without OECD Guideline 473 (In vitro
reaction products with chromosome Mammalian Chromosome
dicyclopentadiene and aberration test Aberration Test)
isobutylene
68610-51-5
Phenol, 4-methyl-, negative mammalian cell with and without OECD Guideline 476 (In vitro
reaction products with gene mutation assay Mammalian Cell Gene
dicyclopentadiene and Mutation Test)
68610-51-5

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
Hydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0	not carcinogenic	inhalation: vapour	2 years 6 h/d, 5d/week	rat	male/female	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)
zinc oxide 1314-13-2	not carcinogenic	oral: drinking water	1 y daily	mouse	male/female	not specified

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 1500 ppm	other:	inhalation	rat	other guideline:
Methylcyclohexane 108-87-2	NOAEL P 250 mg/kg NOAEL F1 1.000 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
zinc oxide 1314-13-2	NOAEL P 7,5 mg/kg NOAEL F1 15 mg/kg	Two generation study	oral: gavage	rat	equivalent or similar to 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	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)
Methylcyclohexane 108-87-2	NOAEL 250 mg/kg	oral: gavage	28 d daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Hydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0	NOAEL 10,504 mg/l	inhalation: vapour	13 weeks 6 h/d, 5 d/week	rat	equivalent or similar to 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)
zinc oxide 1314-13-2	NOAEL 1.5 mg/m3	inhalation	3 m 6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOAEL 500 ppm	oral: feed	90 Days Daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Disulfiram 97-77-8	NOAEL 0,84 mg/kg	oral: feed	52 weeks daily	dog	EPA OPP 83-1 (Chronic Toxicity)

Aspiration hazard:

The mixture is classified based on Viscosity data.

Hazardous substances	Viscosity (kinematic)	Temperature	Method	Remarks
CAS-No.	Value			
Hydrocarbons, C6-C7, n-	0,61 mm2/s	25 °C	not specified	
alkanes, isoalkanes,				
cyclics, <5% n-hexane				
Hydrocarbons, C7, n-	0,5 mm2/s	20 °C	not specified	
alkanes, isoalkanes,			_	
cyclics				
64742-49-0				

11.2 Information on other hazards

not applicable

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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Ethyl acetate	LC50	220 mg/l	96 h	Pimephales promelas	other guideline:
141-78-6					
Methylcyclohexane 108-87-2	LC50	2,07 mg/l	96 h	Oryzias latipes	other guideline:
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	LL50	12 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane	LL50	11,4 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0	LC50	> 1 - 10 mg/l			OECD Guideline 203 (Fish, Acute Toxicity Test)
rosin 8050-09-7	LC50	Toxicity > Water solubility	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:
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	LC50	Toxicity > Water solubility	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOELR	Toxicity > Water solubility	34 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage toxicity test)
Disulfiram 97-77-8	NOEC	0,0032 mg/l	10 d	Brachydanio rerio (new name:	OECD Guideline 210 (fish
Disulfiram 97-77-8	LC50	0,067 mg/l	96 h	Lepomis macrochirus	cary ne suge toxicity test)

Toxicity (Daphnia):

Hazardous substances	Value type	Value	Exposure time	Species	Method
Ethyl acetate 141-78-6	EC50	164 mg/l	48 h	Daphnia cucullata	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methylcyclohexane 108-87-2	EC50	0,326 mg/l	48 h	Daphnia magna	other guideline:
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	EL50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane	EL50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	EC50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0	EC50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
rosin 8050-09-7	EL50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute

					Immobilisation Test)
zinc oxide	EC50	1 mg/l	48 h	Daphnia magna	OECD Guideline 202
1314-13-2					(Daphnia sp. Acute
					Immobilisation Test)
Phenol, 4-methyl-, reaction	EC50	Toxicity > Water	48 h	Daphnia magna	OECD Guideline 202
products with		solubility			(Daphnia sp. Acute
dicyclopentadiene and					Immobilisation Test)
isobutylene					
68610-51-5					
Disulfiram	EC50	0,24 mg/l	48 h	Daphnia magna	OECD Guideline 202
97-77-8					(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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Ethyl acetate	NOEC	2,4 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
141-78-6					magna, Reproduction Test)
Hydrocarbons, C6-C7, n-	NOEC	0,17 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
alkanes, isoalkanes, cyclics,					magna, Reproduction Test)
<5% n-hexane					
Hydrocarbons, C7, n-alkanes,	NOEC	0,17 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
isoalkanes, cyclics					magna, Reproduction Test)
64742-49-0					
zinc oxide	NOEC	0,058 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
1314-13-2					magna, Reproduction Test)
Phenol, 4-methyl-, reaction	NOELR	Toxicity > Water	21 d	Daphnia magna	OECD 211 (Daphnia
products with		solubility			magna, Reproduction Test)
dicyclopentadiene and					
isobutylene					
68610-51-5					

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)
Methylcyclohexane 108-87-2	EC50	0,134 mg/l	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	other guideline:
Methylcyclohexane 108-87-2	NOEC	0,022 mg/l	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	other guideline:
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	EL50	55 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n- hexane 92128-66-0	NOEL	30 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane	EL50	> 30 - 100 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane	NOELR	3 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	EL50	29 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	NOELR	6,3 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C6, isoalkanes, <5% n-hexane 64742-49-0	EC50	> 1 - 10 mg/l			OECD Guideline 201 (Alga, Growth Inhibition Test)
rosin 8050-09-7	EL50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
rosin 8050-09-7	NOELR	Toxicity > Water solubility	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)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOEC	Toxicity > Water solubility	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	EC50	Toxicity > Water solubility	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Ethyl acetate	EC10	2.900 mg/l	18 h	Pseudomonas putida	DIN 38412, part 8
141-78-6					(Pseudomonas
					Zellvermehrungshemm-
					Test)
rosin	EC20	Toxicity > Water	3 h	activated sludge of a	OECD Guideline 209
8050-09-7		solubility		predominantly domestic sewage	(Activated Sludge,
					Respiration Inhibition Test)
zinc oxide	IC50	5,2 mg/l	3 h	not specified	OECD Guideline 209

1314-13-2		(Activated Sludge,
		Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Ethyl acetate	readily biodegradable	aerobic	100 %	28 d	OECD Guideline 301 D (Ready
141-78-6					Biodegradability: Closed Bottle
					Test)
Methylcyclohexane	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 D (Ready
108-87-2					Biodegradability: Closed Bottle
					Test)
Hydrocarbons, C6-C7,	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 F (Ready
isoalkanes, cyclics, <5% n-					Biodegradability: Manometric
hexane					Respirometry Test)
92128-66-0					
Hydrocarbons, C6-C7, n-	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 F (Ready
alkanes, isoalkanes, cyclics,					Biodegradability: Manometric
<5% n-hexane					Respirometry Test)
Hydrocarbons, C7, n-alkanes,	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 F (Ready
isoalkanes, cyclics					Biodegradability: Manometric
64742-49-0					Respirometry Test)
Hydrocarbons, C6, isoalkanes,	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 F (Ready
<5% n-hexane					Biodegradability: Manometric
64742-49-0					Respirometry Test)
rosin	readily biodegradable	aerobic	71 %	28 d	OECD Guideline 301 D (Ready
8050-09-7					Biodegradability: Closed Bottle
					Test)
Phenol, 4-methyl-, reaction	not inherently	aerobic	1 %	28 d	OECD Guideline 302 B (Inherent
products with	biodegradable				biodegradability: Zahn-
dicyclopentadiene and					Wellens/EMPA Test)
isobutylene					
68610-51-5					
Disulfiram		aerobic	20 - 40 %	28 d	OECD Guideline 301 D (Ready
97-77-8					Biodegradability: Closed Bottle
					Test)

12.3. Bioaccumulative potential

Hazardous substances	Bioconcentratio	Exposure time	Temperature	Species	Method
CAS-NO.	n lactor (BCF)				
Ethyl acetate	30	3 d	22,5 °C	Leuciscus idus	other guideline:
141-78-6				melanotus	
Methylcyclohexane	> 95 - < 321	56 day	25 °C	Cyprinus carpio	other guideline:
108-87-2		-			-

12.4. Mobility in soil

Hazardous substances	LogPow	Temperature	Method
CAS-No.	_	_	
Ethyl acetate	0,68	25 °C	EPA OPPTS 830.7560 (Partition Coefficient, n-octanol / H2O, Generator
141-78-6			Column Method)
Methylcyclohexane	3,88		other guideline:
108-87-2			
Hydrocarbons, C6-C7,	3,6	20 °C	other guideline:
isoalkanes, cyclics, <5% n-			
hexane			
92128-66-0			
Hydrocarbons, C6, isoalkanes,	4 - 5,7		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake
<5% n-hexane			Flask Method)
64742-49-0			
rosin	> 3 - 6,2		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC
8050-09-7			Method)
Phenol, 4-methyl-, reaction	7,56	30 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC
products with			Method)
dicyclopentadiene and			
isobutylene			
68610-51-5			
Disulfiram	3,88		not specified
97-77-8			

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Ethyl acetate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
141-78-6	Bioaccumulative (vPvB) criteria.
Hydrocarbons, C6-C7, isoalkanes, cyclics, <5%	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
n-hexane	Bioaccumulative (vPvB) criteria.
92128-66-0	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes,	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
cyclics, <5% n-hexane	Bioaccumulative (vPvB) criteria.
Hydrocarbons, C7, n-alkanes, isoalkanes,	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
cyclics	Bioaccumulative (vPvB) criteria.
64742-49-0	
Hydrocarbons, C6, isoalkanes, <5% n-hexane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
64742-49-0	Bioaccumulative (vPvB) criteria.
rosin	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
8050-09-7	Bioaccumulative (vPvB) criteria.
zinc oxide	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not
1314-13-2	be conducted for inorganic substances.
Phenol, 4-methyl-, reaction products with	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
dicyclopentadiene and isobutylene	Bioaccumulative (vPvB) criteria.
68610-51-5	

12.6. Endocrine disrupting properties

not applicable

12.7. 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 or ID number ADR 1133 RID 1133 ADN 1133 IMDG 1133 IATA 1133 14.2. UN proper shipping name ADR ADHESIVES RID ADHESIVES ADN ADHESIVES IMDG ADHESIVES (Methylcyclohexane) IATA Adhesives 14.3. Transport hazard class(es) ADR 3 RID 3 3 ADN 3 IMDG IATA 3 14.4. Packing group ADR Π Π RID ADN Π IMDG Π Π IATA 14.5. **Environmental hazards** ADR Environmentally Hazardous RID Environmentally Hazardous ADN Environmentally Hazardous IMDG Marine pollutant not applicable IATA 14.6. Special precautions for user ADR Special provision 640D Tunnelcode: (D/E) RID Special provision 640D Special provision 640D ADN IMDG not applicable IATA not applicable 14.7. Maritime transport in bulk according to IMO instruments not applicable

SECTION 15: Regulatory information

No information available:

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixtureOzone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):Not applicablePrior Informed Consent (PIC) (Regulation (EU) No 649/2012):Not applicablePersistent organic pollutants (Regulation (EU) 2019/1021):Not applicable

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

- H225 Highly flammable liquid and vapour.
- 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.

- H361d Suspected of damaging the unborn child.
- 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.

H413 May cause long lasting harmful effects to aquatic life.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very
	bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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