SAFETY DATA SHEET

Based upon Regulation (EC) No. 1907/2006, as amended by Regulation (EC) No. 453/2010

Contact Adhesive 170TX gel

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

1.1 Product identifier:

Product name : Contact Adhesive 170TX gel
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Adhesive

1.2.2 Uses advised against

No uses advised against known

1.3 Details of the supplier of the safety data sheet:

Supplier of the safety data sheet

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
+32 14 42 65 14
msds@soudal.com

Manufacturer of the product

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
+32 14 42 65 14
msds@soudal.com

1.4 Emergency telephone number:

24h/24h (Telephone advice: English, French, German, Dutch):
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation EC No 1272/2008

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Flam. Liq.	category 2	H225: Highly flammable liquid and vapour.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
Skin Irrit.	category 2	H315: Causes skin irritation.
STOT SE	category 3	H336: May cause drowsiness or dizziness.
Aquatic Chronic	category 2	H411: Toxic to aquatic life with long lasting effects.

2.1.2 Classification according to Directive 67/548/EEC-1999/45/EC

Classified as dangerous in accordance with the criteria of Directives 67/548/EEC and 1999/45/EC
F; R11 - Highly flammable.
Xi; R36/38 - Irritating to eyes and skin.
R67 - Vapours may cause drowsiness and dizziness.
N; R51-53 - Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

2.2 Label elements:

Labelling according to Regulation EC No 1272/2008 (CLP)

Contains: hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane.

Signal word Danger

H-statements

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

P-statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves, protective clothing and eye protection/face protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue
P312	Call a POISON CENTER/doctor if you feel unwell.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.

Supplemental information

EUH208	Contains: colophony. May produce an allergic reaction. - This product is not to be used under conditions of poor ventilation. - This product is not to be used for carpet laying.

Labelling according to Directive 67/548/EEC-1999/45/EC (DSD/DPD)

Labels


Highly flammable


Irritant


Dangerous for the environment

R-phrases

36/38	Irritating to eyes and skin
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
67	Vapours may cause drowsiness and dizziness

S-phrases

(02)	(Keep out of the reach of children)
23	Do not breathe vapour
24	Avoid contact with skin
(46)	(If swallowed, seek medical advice immediately and show this container or label)
61	Avoid release to the environment. Refer to special instructions/safety data sheets.

Contains: colophony. May produce an allergic reaction.

Additional recommendations

- This product is not to be used under conditions of poor ventilation.
- This product is not to be used for carpet laying.

2.3 Other hazards:

CLP

May be ignited by sparks
Gas/vapour spreads at floor level: ignition hazard
Caution! Substance is absorbed through the skin

DSD/DPD

May be ignited by sparks
Gas/vapour spreads at floor level: ignition hazard
Caution! Substance is absorbed through the skin
May produce an allergic reaction

SECTION 3: Composition/information on ingredients

3.1 Substances:

Not applicable

3.2 Mixtures:

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to DSD/DPD	Classification according to CLP	Note	Remark

acetone 01-2119471330-49	67-64-1 200-662-2	C<20 %	F; R11 Xi; R36 R66 R67	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent
cyclohexane 01-2119463273-41	110-82-7 203-806-2	C<20 %	F; R11 Xn; R65 Xi; R38 R67 N; R50-53	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(2)(10)	Constituent
ethyl acetate 01-2119475103-46	141-78-6 205-500-4	C<20 %	F; R11 Xi; R36 R66 R67	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent
butanone 01-2119457290-43	78-93-3 201-159-0	C<20 %	F; R11 Xi; R36 R66 R67	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent
zinc oxide 01-2119463881-32	1314-13-2 215-222-5	C<1 %	N; R50-53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(2)	Constituent
2,6-di-tert-butyl-p-cresol 01-2119555270-46	128-37-0 204-881-4	C<1 %	N; R50-53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(2)	Constituent
colophony 01-2119480418-32	8050-09-7 232-475-7	C<1 %	R43	Skin Sens. 1; H317	(1)(2)	Constituent
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane 01-2119475514-35		C<25 %	F; R11 Xi; R38 R67 N; R51-53 Xn; R65	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(10)	Constituent
	98-54-4 202-679-0	C<1 %	Repr. Cat. 3; R62 Xi; R38 - 41 N; R51-53	Repr. 2; H361f Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 1; H410	(1)(2)	Constituent

(1) For R-phrases and H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1 Description of first aid measures:

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

After eye contact:

Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not give milk/oil to drink. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Irritation of the respiratory tract. Nausea. Vomiting. Headache. Central nervous system depression. Dizziness. Narcosis. Excited/restless. Drunkenness. Disturbed motor response. Respiratory difficulties. Disturbances of consciousness.

After skin contact:

Tingling/irritation of the skin.

After eye contact:

Irritation of the eye tissue.

After ingestion:

Dry/sore throat. Risk of aspiration pneumonia. Gastrointestinal complaints. Central nervous system depression. Symptoms similar to those listed under inhalation.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media:

Polyvalent foam. BC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium.

5.2 Special hazards arising from the substance or mixture:

On burning: release of toxic and corrosive gases/vapours (hydrogen chloride, carbon monoxide - carbon dioxide).

5.3 Advice for firefighters:

5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Face-shield. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Face-shield. Protective clothing.

Suitable protective clothing

See heading 8.2

6.2 Environmental precautions:

Contain leaking substance. Dam up the liquid spill. Try to reduce evaporation. Prevent soil and water pollution. Prevent spreading in sewers. Use appropriate containment to avoid environmental contamination.

6.3 Methods and material for containment and cleaning up:

Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4 Reference to other sections:

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling:

Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Insufficient ventilation: take precautions against electrostatic charges. Gas/vapour heavier than air at 20°C. Observe strict hygiene. Keep container tightly closed. Remove contaminated clothing immediately. Do not discharge the waste into the drain.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Safe storage requirements:

Store in a cool area. Ventilation at floor level. Fireproof storeroom. Keep only in the original container. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:

Heat sources, ignition sources.

7.2.3 Suitable packaging material:

Tin.

7.2.4 Non suitable packaging material:

No data available

7.3 Specific end use(s):

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

The Netherlands

2,6-Di-tert-butyl-p-cresol (inhaleerbaar)	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	5 mg/m³
2-Butanon	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	197 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	590 mg/m³
	Short time value (Public occupational exposure limit value)	300 ppm
	Short time value (Public occupational exposure limit value)	900 mg/m³
Aceton	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	501 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	1210 mg/m³
	Short time value (Public occupational exposure limit value)	1002 ppm
	Short time value (Public occupational exposure limit value)	2420 mg/m³
Cyclohexaan	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	200 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	700 mg/m³
	Short time value (Public occupational exposure limit value)	400 ppm
	Short time value (Public occupational exposure limit value)	1400 mg/m³
Ethylacetaat	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	150 ppm
	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	550 mg/m³
	Short time value (Private occupational exposure limit value)	300 ppm
	Short time value (Private occupational exposure limit value)	1100 mg/m³
p-tert.Butylfenol	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	0.08 ppm
	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	0.5 mg/m³
Pyrolyseproducten afkomstig van harskern soldeertin (alifatisch aldehyde berekend als formaldehyde)	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	0.1 mg/m³
Zinkoxide (rook)	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	5 mg/m³

EU

Acetone	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	500 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1210 mg/m³
Butanone	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	200 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	600 mg/m³
	Short time value (Indicative occupational exposure limit value)	300 ppm
	Short time value (Indicative occupational exposure limit value)	900 mg/m³
Cyclohexane	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	200 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	700 mg/m³

Belgium

2,6-Di-tert-butyl-p-crésol (vapeur et aérosol)	Time-weighted average exposure limit 8 h	2 mg/m³
2-Butanone	Time-weighted average exposure limit 8 h	200 ppm
	Time-weighted average exposure limit 8 h	600 mg/m³
	Short time value	300 ppm
	Short time value	900 mg/m³
Acétate d'éthyle	Time-weighted average exposure limit 8 h	400 ppm
	Time-weighted average exposure limit 8 h	1461 mg/m³
Acétone	Time-weighted average exposure limit 8 h	500 ppm
	Time-weighted average exposure limit 8 h	1210 mg/m³
	Short time value	1000 ppm
	Short time value	2420 mg/m³
Cyclohexane	Time-weighted average exposure limit 8 h	100 ppm

Cyclohexane	Time-weighted average exposure limit 8 h	350 mg/m³
Zinc (oxyde de) (fumées)	Time-weighted average exposure limit 8 h	2 mg/m³
	Short time value	10 mg/m³

USA (TLV-ACGIH)

Acetone	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	500 ppm
	Short time value (TLV - Adopted Value)	750 ppm
Butylated hydroxytoluene (BHT)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 mg/m³ (IFV)
Cyclohexane	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	100 ppm
Ethyl acetate	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	400 ppm
Methyl ethyl ketone (MEK)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	200 ppm
	Short time value (TLV - Adopted Value)	300 ppm
Zinc oxide	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 mg/m³ (R)
	Short time value (TLV - Adopted Value)	10 mg/m³ (R)

(IFV): Inhalable fraction and vapor
(R): Respirable fraction

Germany

2,6-Di-tert-butyl-p-kresol	Time-weighted average exposure limit 8 h (TRGS 900)	10 mg/m³
4-tert-Butylphenol	Time-weighted average exposure limit 8 h (TRGS 900)	0.08 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	0.5 mg/m³
Aceton	Time-weighted average exposure limit 8 h (TRGS 900)	500 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1200 mg/m³
Butanon	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	600 mg/m³
Cyclohexan	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	700 mg/m³
Ethylacetat	Time-weighted average exposure limit 8 h (TRGS 900)	400 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1500 mg/m³

France

2,6-Di-tert-butyl-p-crésol	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³
Acétate d'éthyle	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	400 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1400 mg/m³
Acétone	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	500 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	1210 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	1000 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	2420 mg/m³
Colophane (produits de décomposition des baguettes de soudure, exprimés en aldéhyde formique)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	0.1 mg/m³
Cyclohexane	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	200 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	700 mg/m³
	Short time value (VL: Valeur non réglementaire indicative)	375 ppm
	Short time value (VL: Valeur non réglementaire indicative)	1300 mg/m³
Méthyléthylcétone	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	200 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	600 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	300 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	900 mg/m³
Zinc (oxyde de, fumées)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	5 mg/m³
Zinc (oxyde de, poussières)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³

UK

2,6-Di-tert-butyl-p-cresol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³

Acetone	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	500 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1210 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	1500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	3620 mg/m³
Butan-2-one (methyl ethyl ketone)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	200 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	600 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	300 ppm
	Short time value (Workplace exposure limit (EH40/2005))	899 mg/m³
Cyclohexane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	100 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	350 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	300 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1050 mg/m³
Ethyl acetate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	200 ppm
	Short time value (Workplace exposure limit (EH40/2005))	400 ppm
Rosin-based solder flux fume	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	0.05 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	0.15 mg/m³

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

2,6-Di-tert-Butyl-p-Cresol (DBPC)	NIOSH	1(226)
2-Butanone (MEK) (Methyl ethyl ketone)	NIOSH	2500
2-Butanone (Methyl ethyl ketone)	OSHA	84
2-Butanone (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
2-Butanone (Volatile Organic compounds)	NIOSH	2549
2-Butanone	OSHA	1004
2-Butanone	OSHA	13
Acetone (ketones 1)	NIOSH	1300
Acetone (ketones I)	NIOSH	2555
Acetone (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Acetone (Volatile Organic compounds)	NIOSH	2549
ACETONE and METHYL ETHYL KETONE in urine	NIOSH	8319
Acetone	OSHA	69
Cyclohexane (Hydrocarbons, BP36 to 126C)	NIOSH	1500
Cyclohexane	NIOSH	95-117
Cyclohexane	OSHA	7
Di-tert-butyl-p-cresol	OSHA	2108
Ethyl acetate (Volatile Organic compounds)	NIOSH	2549
Ethyl Acetate	NIOSH	1457
Ethyl Acetate	OSHA	7
MEK	NIOSH	8002
Methyl Ethyl Ketone (ketones I)	NIOSH	2555
Methyl Ethyl Ketone	OSHA	16
Petroleum Distillate (Naphthas)	NIOSH	1550
Petroleum Distillates fractions	OSHA	48
p-tert-Butylphenol	OSHA	2085
Zinc (Elements)	NIOSH	7300
Zinc Oxide	NIOSH	7030
Zinc Oxide	NIOSH	7502
Zinc Oxide	OSHA	ID 121

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL - Workers

acetone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute local effects inhalation	2420 mg/m³	
	Long-term systemic effects dermal	186 mg/kg bw/day	
	Long-term systemic effects inhalation	1210 mg/m³	

cyclohexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	700 mg/m³	
	Acute systemic effects inhalation	700 mg/m³	
	Long-term local effects inhalation	700 mg/m³	
	Acute local effects inhalation	700 mg/m³	
	Long-term systemic effects dermal	2016 mg/kg bw/day	

ethyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects inhalation	1468 mg/m³	
	Acute local effects inhalation	1468 mg/m³	
	Long-term systemic effects dermal	63 mg/kg bw/day	
	Long-term systemic effects inhalation	734 mg/m³	
	Long-term local effects inhalation	734 mg/m³	

butanone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	600 mg/m³	
	Long-term systemic effects dermal	1161 mg/kg bw/day	

zinc oxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	5 mg/m³	
	Long-term systemic effects dermal	83 mg/kg bw/day	

2,6-di-tert-butyl-p-cresol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	0.5 mg/kg bw/day	
	Long-term systemic effects inhalation	3.5 mg/m³	

colophony

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	117 mg/m³	
	Long-term systemic effects dermal	17 mg/kg bw/day	

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2035 mg/m³	
	Long-term systemic effects dermal	773 mg/kg bw/day	

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Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.5 mg/m³	
	Long-term systemic effects dermal	0.071 mg/kg bw/day	

DNEL - General population

acetone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	62 mg/kg bw/day	
	Long-term systemic effects inhalation	200 mg/m³	
	Long-term systemic effects oral	62 mg/kg bw/day	

cyclohexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	206 mg/m³	
	Acute systemic effects inhalation	412 mg/m³	
	Long-term local effects inhalation	206 mg/m³	
	Acute local effects inhalation	412 mg/m³	
	Long-term systemic effects dermal	1186 mg/kg bw/day	
	Long-term systemic effects oral	59.4 mg/kg bw/day	

ethyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects inhalation	734 mg/m³	
	Acute local effects inhalation	734 mg/m³	
	Long-term systemic effects dermal	37 mg/kg bw/day	
	Long-term systemic effects inhalation	367 mg/m³	
	Long-term systemic effects oral	4.5 mg/kg bw/day	
	Long-term local effects inhalation	367 mg/m³	

butanone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	106 mg/m³	
	Long-term systemic effects dermal	412 mg/kg bw/day	
	Long-term systemic effects oral	31 mg/kg bw/day	

zinc oxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.5 mg/m³	
	Long-term systemic effects dermal	83 mg/kg bw/day	
	Long-term systemic effects oral	0.83 mg/kg bw/day	

2,6-di-tert-butyl-p-cresol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	0.25 mg/kg bw/day	
	Long-term systemic effects inhalation	0.86 mg/m³	
	Long-term systemic effects oral	0.25 mg/kg bw/day	

colophony

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	35 mg/m³	
	Long-term systemic effects dermal	10 mg/kg bw/day	
	Long-term systemic effects oral	10 mg/kg bw/day	

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	608 mg/m³	
	Long-term systemic effects dermal	699 mg/kg bw/day	
	Long-term systemic effects oral	699 mg/kg bw/day	

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Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.09 mg/m³	
	Long-term systemic effects dermal	0.026 mg/kg bw/day	
	Long-term systemic effects oral	0.026 mg/kg bw/day	

PNEC

acetone

Compartments	Value	Remark
Fresh water	10.6 mg/l	
Marine water	1.06 mg/l	
Aqua (intermittent releases)	21 mg/l	
Fresh water sediment	30.4 mg/kg sediment dw	
Marine water sediment	3.04 mg/kg sediment dw	
Soil	29.5 mg/kg soil dw	
STP	100 mg/l	

cyclohexane

Compartments	Value	Remark
Fresh water	0.207 mg/l	
Marine water	0.207 mg/l	
Aqua (intermittent releases)	0.207 mg/l	
STP	3.24 mg/l	
Fresh water sediment	3.627 mg/kg sediment dw	
Marine water sediment	3.627 mg/kg sediment dw	
Soil	2.99 mg/kg soil dw	

ethyl acetate

Compartments	Value	Remark
Fresh water	0.24 mg/l	
Marine water	0.024 mg/l	
Aqua (intermittent releases)	1.65 mg/l	
STP	650 mg/l	
Fresh water sediment	1.15 mg/kg sediment dw	
Marine water sediment	0.115 mg/kg sediment dw	
Soil	0.148 mg/kg soil dw	
Oral	0.2 g/kg food	

butanone

Compartments	Value	Remark
Fresh water	55.8 mg/l	
Marine water	55.8 mg/l	
Aqua (intermittent releases)	55.8 mg/l	
STP	709 mg/l	
Fresh water sediment	284.74 mg/kg sediment dw	
Marine water sediment	284.7 mg/kg sediment dw	
Soil	22.5 mg/kg soil dw	
Food	1000 mg/kg food	

zinc oxide

Compartments	Value	Remark
Fresh water	20.6 µg/l	
Marine water	6.1 µg/l	
STP	100 µg/l	
Fresh water sediment	117.8 mg/kg sediment dw	
Marine water sediment	56.5 mg/kg sediment dw	
Soil	35.6 mg/kg soil dw	

2,6-di-tert-butyl-p-cresol

Compartments	Value	Remark
Fresh water	0.199 µg/l	
Marine water	0.0199 µg/l	
Aqua (intermittent releases)	1.99 µg/l	
STP	0.17 mg/l	
Fresh water sediment	99.6 µg/kg sediment dw	
Marine water sediment	9.96 µg/kg sediment dw	
Soil	47.69 µg/kg soil dw	
Oral	8.33 mg/kg food	

colophony

Compartments	Value	Remark
Fresh water	0.0016 mg/l	
Marine water	0.00016 mg/l	
Aqua (intermittent releases)	0.016 mg/l	
STP	10 mg/l	
Fresh water sediment	0.007 mg/kg sediment dw	
Marine water sediment	0.0007 mg/kg sediment dw	
Soil	0.00045 mg/kg soil dw	

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Compartments	Value	Remark
Fresh water	0.01 mg/l	
Marine water	0.001 mg/l	
Aqua (intermittent releases)	0.048 mg/l	
STP	1.5 mg/l	
Fresh water sediment	0.27 mg/kg sediment dw	
Marine water sediment	0.027 mg/kg sediment dw	
Soil	0.25 mg/kg soil dw	
Food	46.67 mg/kg food	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Insufficient ventilation: take precautions against electrostatic charges. Work under local exhaust/ventilation.

8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit.

b) Hand protection:

Gloves.

c) Eye protection:

Protective goggles.

d) Skin protection:

Head/neck protection. Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical form	Viscous
Odour	Solvent-like odour
Odour threshold	No data available
Colour	Yellow
Particle size	No data available
Explosion limits	No data available

Flammability	Highly flammable liquid and vapour.
Log Kow	Not applicable (mixture)
Dynamic viscosity	2Pa.s ; 20°C
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Flash point	< 21°C
Evaporation rate	No data available
Relative vapour density	> 2
Vapour pressure	No data available
Solubility	No data available
Relative density	0.86
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2 Other information:

Absolute density	860kg/m³

SECTION 10: Stability and reactivity

10.1 Reactivity:

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard. No data available.

10.2 Chemical stability:

Stable under normal conditions.

10.3 Possibility of hazardous reactions:

No data available.

10.4 Conditions to avoid:

Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Insufficient ventilation: take precautions against electrostatic charges.

10.5 Incompatible materials:

No data available.

10.6 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (hydrogen chloride, carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Test results

Acute toxicity

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	5800mg/kg		Rat (female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	20000mg/kg		Rabbit (male)	Experimental value	
Dermal	LD50		> 7426mg/kg bw		Rabbit (female)	Weight of evidence	
Inhalation (vapours)	LC50	Other	76mg/l	4 h	Rat (female)	Experimental value	
Inhalation (vapours)	LCL0	Other	16000ppm	4 h	Rat	Experimental value	

cyclohexane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 5000mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 2000mg/kg bw		Rabbit (male/female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 32.88mg/l air	4 h	Rat (male/female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 19.07mg/l	4 h	Rat (male/female)	Experimental value	

ethyl acetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	10200mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	24 hour cuff method	> 20000mg/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation	LC50		70.56mg/l	4 h	Rat		
Inhalation (vapours)	LC0	Equivalent to OECD 403	8000ppm	4 h	Rat	Experimental value	

butanone

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 423	2054mg/kg		Rat (male)	Read-across	
Oral	LD50	Equivalent to OECD 423	2328mg/kg		Rat (female)	Read-across	
Oral	LD50	Equivalent to OECD 423	2193mg/kg bw		Rat	Read-across	
Dermal	LD50	Equivalent to OECD 402	> 10ml/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation						Data waiving	

zinc oxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 5000mg/kg		Rat (male/female)	Experimental value	
Dermal	LD50	OECD 402	> 2000mg/kg bw	24 h	Rat (male/female)	Experimental value	
Inhalation (dust)	LC50	Equivalent to OECD 403	> 5.7mg/l	4 h	Rat (male/female)	Experimental value	

2,6-di-tert-butyl-p-cresol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 6000mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	OECD 402	> 2000mg/kg bw	24 h	Rat (male/female)	Experimental value	

colophony

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Other	2800mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	OECD 402	> 2000mg/kg bw	24 h	Rat (male/female)	Experimental value	
Inhalation						Data waiving	

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Other	> 5840mg/kg bw		Rat (male/female)	Read-across	
Dermal	LD50	Other	> 2800mg/kg bw	24 week(s)	Rat (male/female)	Similar product	
Inhalation (vapours)	LC50	Other	> 25.2mg/l	4 h	Rat (male/female)	Experimental value	

###

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 2000mg/kg		Rat (male/female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 16000mg/kg bw	24 h	Rabbit (male/female)	Experimental value	
Inhalation (dust)	LC50	Equivalent to OECD 403	> 5.6mg/l	4 h	Rat (male/female)	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405		24; 48; 72 hours	Rabbit	Weight of evidence	
Skin	Not irritating	Other	3 day(s)	24; 48; 72 hours	Guinea pig	Weight of evidence	
Inhalation	Slightly irritating	Human observation study	20 minutes		Human	Literature	

cyclohexane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Slightly irritating	Equivalent to OECD 405		24 hours	Rabbit	Experimental value	
Skin	Not irritating	EU Method B.4	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	Equivalent to OECD 404		24; 72 hours	Rabbit	Experimental value	
Inhalation	Irritating					Literature study	

ethyl acetate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating; category 2					Annex VI	
Eye	Not irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	
Skin	Slightly irritating	Equivalent to OECD 404	24 h	24; 48; 72 hours	Rabbit	Experimental value	

butanone

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	Equivalent to OECD 405			Rabbit	Experimental value	Single exposure
Skin	Not irritating	OECD 404	4 h		Rabbit	Read-across	

zinc oxide

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405	24 h	24; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	OECD 404	24 h	24 hours	Rabbit	Experimental value	

2,6-di-tert-butyl-p-cresol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	OECD 404		24; 72 hours	Rabbit	Experimental value	

colophony

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Other			Rabbit	Read-across	
Skin	Irritating	Equivalent to OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

###

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	Equivalent to OECD 405	1 seconds	1; 24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Highly irritating	OECD 404	4 h	1; 24; 48; 72 hours	Rabbit	Experimental value	

Classification is based on the relevant ingredients

Conclusion

Causes skin irritation.
Causes serious eye irritation.
Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Guinea pig maximisation test		48 hours	Hamster (female)	Experimental value	
Skin	Not sensitizing	Human observation			Human	Literature	

cyclohexane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	EU Method B.6	6 h	24; 48 hours	Guinea pig (male/female)	Experimental value	

ethyl acetate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406	24 h	24; 48 hours	Guinea pig (female)	Experimental value	

butanone

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (female)	Experimental value	

zinc oxide

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Experimental value	
Skin	Not sensitizing	Human observation	2 days (continuous)	72 hours	Human	Experimental value	

2,6-di-tert-butyl-p-cresol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Guinea pig maximisation test		24; 48 hours	Guinea pig (male/female)	Experimental value	
Skin	Not sensitizing	Human observation			Human (male/female)	Experimental value	

colophony

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Human observation			Human (male/female)	Experimental value	
Skin	Not sensitizing	Human observation			Human (female)	Read-across	

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406		24; 48 hours	Guinea pig (male/female)	Read-across	

###

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		48; 72 hours	Guinea pig (male)	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	Equivalent to OECD 408	20mg/l		No effect	13 week(s)	Mouse (male/female)	Experimental value
Dermal								Not relevant, expert
Inhalation (vapours)	NOAEC	Other	19000ppm		No effect	8 week(s)	Rat (male)	Literature
Inhalation (vapours)		Human observation study	361ppm	Central nervous system	neurotoxic effects	2 day(s)	Human	Inconclusive, insufficient data

cyclohexane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Inhalation (vapours)	NOAEC	US EPA	7000ppm		No effect	14 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

ethyl acetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	US EPA	900mg/kg bw/day	General	Clinical signs; mortality; body weight; food consumption	90-92 day(s)	Rat (male/female)	Experimental value
Inhalation	NOEC	EPA OTS 798.2450	350ppm	General	Systemic toxicity	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value
Inhalation			STOT SE cat.3	Central nervous system	Drowsiness, dizziness			Annex VI

butanone

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	5041ppm		No effect	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value
Inhalation (vapours)			STOT SE cat.3	Central nervous system	Drowsiness, dizziness			Annex VI

zinc oxide

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOEL	OECD 408	3000ppm		No effect	13 weeks (daily)	Rat (male/female)	Read-across
Inhalation (aerosol)	NOAEL	OECD 413	1.5mg/m³ air		No effect	13 weeks (6h/day, 5 days/week)	Rat (male)	Experimental value

2,6-di-tert-butyl-p-cresol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL		25mg/kg bw/day		No effect		Rat (male/female)	Experimental value

colophony

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	Subchronic toxicity test	0.2%		No effect	90 day(s)	Rat (male/female)	Inconclusive, insufficient data
Dermal								Data waiving
Inhalation								Data waiving

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Inhalation (vapours)	NOAEC	Other	4200mg/m³ air		No effect	3 days (8h/day)	Rat (male)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	6646ppm		No effect	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Read-across
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	2220ppm		No effect	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Read-across
Inhalation (vapours)	LOAEC	Other	14g/m³	Central nervous system	Behavioural disturbances	3 days (8h/day)	Rat (male)	Experimental value

###

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	LOAEL	Other	2000ppm	Liver	Morphological transformation	14 week(s)	Rat (male/female)	Experimental value
Oral (stomach tube)	NOAEL	OECD 422	60mg/kg bw/day		No effect		Rat (male/female)	Experimental value
Dermal								Data waiving
Inhalation								Data waiving

Classification is based on the relevant ingredients

Conclusion

May cause drowsiness or dizziness.

Not classified for subchronic toxicity

Mutagenicity (in vitro)

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

Result	Method	Test substrate	Effect	Value determination
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value

cyclohexane

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value

ethyl acetate

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

butanone

Result	Method	Test substrate	Effect	Value determination
Negative	Equivalent to OECD 473	Rat liver cells	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

zinc oxide

Result	Method	Test substrate	Effect	Value determination
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

2,6-di-tert-butyl-p-cresol

Result	Method	Test substrate	Effect	Value determination
Negative	Ames test	Bacteria (S.typhimurium)	No effect	Experimental value
Negative	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative	Equivalent to OECD 479	Chinese hamster ovary (CHO)	No effect	Experimental value

colophony

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value
Negative	OECD 473	Human lymphocytes	No effect	Experimental value

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Result	Method	Test substrate	Effect	Value determination
Negative	Equivalent to OECD 473	Rat liver cells	No effect	Read-across
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Read-across
Negative	OECD 476		No effect	Read-across

###

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 473	Rat lymphocytes	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

Mutagenicity (in vivo)

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative		13 week(s)	Mouse (male/female)		Literature

cyclohexane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 475	5 days (6h/day)	Rat (male/female)	Bone marrow	Experimental value

ethyl acetate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 474		Mouse (male)		Experimental value

butanone

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 474		Mouse (male/female)		Experimental value

zinc oxide

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474		Mouse (male)	Bone marrow	Experimental value

2,6-di-tert-butyl-p-cresol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Chromosome aberration assay	8 weeks (daily)	Mouse (male)		Experimental value
Negative	Micronucleus test		Mouse (female)	Bone marrow	Experimental value

###

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474	24, 48 h	Mouse (male/female)	Bone marrow	Read-across

Carcinogenicity

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Dermal	NOEL	Other	79mg	51 week(s)	Mouse (female)	Literature		No effect

2,6-di-tert-butyl-p-cresol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Oral		Not further determined		104 week(s)	Rat (male/female)	Experimental value		No carcinogenic effect

colophony

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Inhalation						Data waiving		
Dermal						Data waiving		
Oral						Data waiving		

###

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Inhalation						Data waiving		
Dermal						Data waiving		
Oral						Data waiving		

Reproductive toxicity

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Equivalent to OECD 414	11000ppm	6-19 days (gestation, daily)	Rat (male/female)			Experimental value
Effects on fertility	NOAEL	Other	900mg/kg bw/day	13 week(s)	Rat (male)	No effect		Literature

cyclohexane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Equivalent to OECD 414	7000ppm	10 days (6h/day)	Rat	No effect		Experimental value
Maternal toxicity	NOAEC	Equivalent to OECD 414	2000ppm	10 days (6h/day)	Rat (female)	No effect		Experimental value
Effects on fertility	NOAEC	Equivalent to OECD 416	2000ppm	>11 weeks (6h/day, 5 days/week)	Rat (male/female)	No effect		Experimental value

ethyl acetate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	> 3600mg/kg bw/day	8-14 days (gestation, daily)	Mouse	No effect	Foetus	Read-across
Maternal toxicity	NOAEL	Equivalent to OECD 414	2200mg/kg bw/day	8-14 days (gestation, daily)	Mouse	No effect		Read-across
	LOAEL	Equivalent to OECD 414	3600mg/kg bw/day	8-14 days (gestation, daily)	Mouse	Mortality	General	Read-across
Effects on fertility	NOAEL	Other	1500ppm	13 weeks (6h/day, 5 days/week)	Rat (male)	Reduction in sperm motility	Testes	Experimental value

butanone

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Equivalent to OECD 414	1002ppm	10 days (7h/day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity	NOAEC	Equivalent to OECD 414	1002ppm	10 days (7h/day)	Rat (female)	No effect		Experimental value
Effects on fertility	NOAEL	Equivalent to OECD 416	1644mg/kg bw/day - 1771mg/kg bw/day		Rat (male/female)	No effect		Read-across

zinc oxide

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	OECD 414	7.5mg/kg bw/day	14 days (6h/day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity	NOAEC	OECD 414	7.5mg/kg bw/day	14 days (6h/day)	Rat	No effect		Experimental value
Effects on fertility	NOAEL (F1)	Equivalent to OECD 416	7.5mg/kg bw/day	22 weeks (daily)	Rat (male/female)	No effect		Read-across

2,6-di-tert-butyl-p-cresol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	375mg/kg bw/day		Rat (female)	No effect	Foetus	Experimental value
Maternal toxicity	NOAEL	Equivalent to OECD 414	93.5mg/kg bw/day		Rat (female)	No effect		Experimental value
Effects on fertility	NOAEL		500mg/kg bw/day		Rat (female)	No effect		Experimental value
	NOAEL		100mg/kg bw/day		Rat (male)	No effect		Experimental value

colophony

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL (F1)	OECD 421	3000ppm	30-45 day(s)	Rat (male/female)	No effect		Experimental value
Effects on fertility	NOAEL (P)	OECD 421	3000ppm	30-45 day(s)	Rat (male/female)	No effect		Experimental value

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Other	≥ 1200ppm	10 days (6h/day)	Rat	No effect		Read-across
	NOAEL	Equivalent to OECD 414	3000ppm	10 days (6h/day)	Mouse	No effect		Read-across
	LOAEL	Equivalent to OECD 414	9000ppm	10 days (6h/day)	Mouse	Minor skeletal variations	Skeleton	Read-across
Maternal toxicity	NOAEC		1200ppm		Rat (female)	No effect		Read-across
	NOAEL	Equivalent to OECD 414	900ppm	10 days (6h/day)	Rat (female)	No effect		Read-across
	LOAEL	Equivalent to OECD 414	3000ppm	10 days (6h/day)	Rat (female)	Lung tissue affection/degeneration	Lungs	Read-across
Effects on fertility	NOAEL (P/F1)	Equivalent to OECD 416	9000ppm		Rat (male/female)	No effect		Read-across

###

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 414	≥ 300mg/kg bw/day	20 day(s)	Rat	No effect		Read-across
Maternal toxicity	NOAEL	OECD 414	75mg/kg bw/day	20 day(s)	Rat	Mortality		Read-across
Effects on fertility	NOEL	OECD 416	800ppm		Rat (male/female)	No effect		Experimental value
	NOAEL (P)	OECD 422	60mg/kg bw/day		Rat (male/female)	Irritation of the respiratory tract		Experimental value

Judgement is based on the relevant ingredients

Conclusion CMR

Not classified for carcinogenicity
Not classified for reprotoxic or developmental toxicity
Not classified for mutagenic or genotoxic toxicity

Toxicity other effects

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
			Skin	Skin dryness or cracking			Literature study

cyclohexane

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
NOAEC	Other	2000ppm		neurotoxic effects	6 h	Rat (male)	Experimental value
LOAEC	Other	7000ppm		neurotoxic effects	6 h	Rat (male)	Experimental value

ethyl acetate

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
			Skin	Skin dryness or cracking			Literature

butanone

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
	Equivalent to OECD 404		Skin	Skin dryness or cracking			Read-across

Chronic effects from short and long-term exposure

Contact Adhesive 170TX gel

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Skin rash/inflammation. Dry/sore throat. Headache. Nausea. Feeling of weakness. Possible inflammation of the respiratory tract.

SECTION 12: Ecological information

12.1 Toxicity:

Contact Adhesive 170TX gel

No (test)data on the mixture available

acetone

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EU Method C.1	5540 mg/l	96 h	Salmo gairdneri	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity invertebrates	LC50	Other	12600 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	EC50		>7000 mg/l	96 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; Nominal concentration

cyclohexane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	4.53 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Measured concentration
Acute toxicity invertebrates	EC50	OECD 202	0.9 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	EbC50	OECD 201	3.428 mg/l	72 h	Selenastrum capricornutum			Experimental value; GLP
	NOEC	OECD 201	0.925 mg/l	72 h	Selenastrum capricornutum			Experimental value; Biomass
	ErC50	OECD 201	9.317 mg/l	72 h	Pseudokirchneriella subcapitata			Experimental value; GLP
	NOEC	OECD 201	0.94 mg/l	72 h	Pseudokirchneriella subcapitata			Experimental value; Growth rate
Toxicity aquatic micro-organisms	IC50		29 mg/l	15 h	Aerobic micro-organisms			Experimental value; Nominal concentration

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity soil macro-organisms	LC50	OECD 207	>1000 µg/cm²	48 h	Eisenia fetida	Experimental value

ethyl acetate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	US EPA	230 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Acute toxicity invertebrates	EC50		154 mg/l	48 h	Daphnia magna			Literature
Toxicity algae and other aquatic plants	NOEC	OECD 201	> 100 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEC	ECOSAR v1.00	6.3 mg/l	32 day(s)	Pisces		Fresh water	QSAR
	NOEC	OECD 210	<9.65 mg/l	32 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Growth rate
Long-term toxicity aquatic invertebrates	NOEC	Equivalent to OECD 211	2.4 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	EC50		5870 mg/l	15 minutes	Photobacterium phosphoreum	Static system	Salt water	Experimental value; Inhibitory

butanone

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	2993 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value; Lethal
Acute toxicity invertebrates	EC50	OECD 202	308 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	EC50	OECD 201	1972 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Toxicity aquatic micro-organisms	EC0	DIN 38412-8	1150 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	Experimental value

zinc oxide

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	ASTM E729-88	0.169 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Read-across; Zinc ion
Acute toxicity invertebrates	LC50	Equivalent to OECD 202	0.33 - 0.66 mg/l	48 h	Daphnia magna	Static system	Fresh water	Read-across; Zinc ion
Toxicity algae and other aquatic plants	IC50	OECD 201	0.136 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Zinc ion
	NOEC	OECD 201	0.024 mg/l	3 day(s)	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Zinc ion
Long-term toxicity fish	NOEC	OECD 215	0.199 mg/l	30 day(s)	Oncorhynchus mykiss	Flow-through system	Fresh water	Read-across; Zinc ion
Long-term toxicity aquatic invertebrates	NOEC	OECD 211	0.048 - 0.156 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Read-across; Zinc ion
Toxicity aquatic micro-organisms	EC50	Equivalent to OECD 209	5.2 mg/l	3 h	Activated sludge	Static system	Fresh water	Read-across; Inhibitory

2,6-di-tert-butyl-p-cresol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC0	EU Method C.1	>= 0.57 mg/l	96 h	Brachydanio rerio	Semi-static system	Fresh water	Experimental value; GLP
	LC50	ECOSAR v1.00	0.199 mg/l	96 h	Pisces			QSAR
Acute toxicity invertebrates	EC50	OECD 202	0.48 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
	NOEC	OECD 202	0.15 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	ECOSAR v1.00	0.758 mg/l	96 h	Algae			Calculated value
Long-term toxicity fish	NOEC	ECOSAR v1.00	0.041 mg/l		Pisces			Calculated value; Chronic
Long-term toxicity aquatic invertebrates	NOEC	OECD 202	0.316 mg/l	21 day(s)	Daphnia magna			Experimental value; GLP
Toxicity aquatic micro-organisms	EC50		1.7 mg/l	24 h	Tetrahymena pyriformis	Static system	Fresh water	Experimental value

colophony

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	1 - <10 mg/l	96 h	Brachydanio rerio	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity invertebrates	EC50	OECD 202	911 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	> 1000 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EC50	OECD 209	> 10000 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; GLP

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	11.4 mg/l WAF	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity invertebrates	EC50	OECD 202	3.0 mg/l WAF	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	30 - 100 mg/l WAF	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEL		2.045 mg/l	28	Oncorhynchus mykiss		Fresh water	QSAR
Long-term toxicity aquatic invertebrates	NOEC		0.17 mg/l	21 day(s)	Daphnia magna			Literature
	LOEC		0.32 mg/l	21 day(s)	Daphnia magna			Literature
Toxicity aquatic micro-organisms	EC50		35.57 mg/l	48 h	Tetrahymena pyriformis		Fresh water	QSAR; Growth rate

###

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		5.14 mg/l	96 h	Pimephales promelas			Measured concentration
	LC50	Equivalent to OECD 203	1 - 10 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Similar product; Nominal concentration
Acute toxicity invertebrates	EC50		3.9 mg/l	48 h	Daphnia magna			
	EC50	OECD 202	4.8 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50		11.2 mg/l	72 h	Scenedesmus subspicatus			Growth rate
	ErC50	OECD 201	14 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	Equivalent to OECD 210	10 µg/l	128 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic invertebrates	NOEC	Equivalent to OECD 211	0.73 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Nominal concentration
	EC50	OECD 202	4.8 mg/l	48	Daphnia magna	Static system	Fresh water	Experimental value
Toxicity aquatic micro-organisms	EC50	Equivalent to OECD 209	> 10 mg/l	3 h	Activated sludge		Fresh water	Experimental value

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity soil macro-organisms						Data waiving
Toxicity soil micro-organisms						Data waiving
Toxicity terrestrial plants						Data waiving
Toxicity birds						Data waiving

Classification of the mixture is based on the relevant ingredients and on application of the summation method

Conclusion

Toxic to aquatic organisms
Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability:

acetone

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	90.9 %	28 day(s)	Experimental value

cyclohexane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	77 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	52 h	500000 /cm³	Calculated value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
	28 - 180 day(s)		Literature study

ethyl acetate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	93.9 %	28 day(s)	Experimental value
OECD 301D: Closed Bottle Test	100 %	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	40 h	500000 /cm³	QSAR

butanone

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D: Closed Bottle Test	98 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	2.7-26.7 h		Calculated value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
	1-7 day(s)		Calculated value

2,6-di-tert-butyl-p-cresol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301C: Modified MITI Test (I)	4.5 %	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	7.02 h	1.5E6 /cm³	Calculated value

Biodegradation soil

Method	Value	Duration	Value determination
	63.82 %	1 day(s)	Experimental value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
BIOWIN 4.10	37.5 day(s); QSAR	Primary degradation	Calculated value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
EPI Suite	75 day(s)	Primary degradation	Calculated value

Half-life air (t1/2 air)

Method	Value	Primary degradation/mineralisation	Value determination
AOPWIN v1.92	7.018 h	Primary degradation	Calculated value

colophony

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D: Closed Bottle Test	71 %; GLP	28 day(s)	Experimental value

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	98 %	28 day(s)	Experimental value

###

Biodegradation water

Method	Value	Duration	Value determination
OECD 301A: DOC Die-Away Test	98 %	28 day(s)	Experimental value
OECD 301F: Manometric Respirometry Test	60 %; GLP	28 day(s)	Experimental value

Conclusion

Contains non readily biodegradable component(s)

12.3 Bioaccumulative potential:

Contact Adhesive 170TX gel

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

acetone

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		0.69		Pisces	

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFWIN	3			Calculated value

Log Kow

Method	Remark	Value	Temperature	Value determination
		-0.24		Test data

cyclohexane

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		31 - 129	8 week(s)	Cyprinus carpio	Literature study
		167		Pimephales promelas	QSAR

Log Kow

Method	Remark	Value	Temperature	Value determination
		3.44	25 °C	Experimental value

ethyl acetate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		30	3 day(s)	Leuciscus idus	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
EPA OPPTS 830.7560		0.68	25 °C	Experimental value

butanone

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		0.3	40 °C	Experimental value

zinc oxide

Log Kow

Method	Remark	Value	Temperature	Value determination
		1.53		Estimated value

2,6-di-tert-butyl-p-cresol

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	230 - 2500	56 day(s)	Cyprinus carpio	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
		5.1		Experimental value

colophony

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.00	56.2			QSAR

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		1.9		Experimental value

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Log Kow

Method	Remark	Value	Temperature	Value determination
		> 3		

###

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		120	3 h	Leuciscus idus	
		20 - 88		Cyprinus carpio	
	OECD 305	20 - 48	8 week(s)	Cyprinus auratus	Experimental value

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF		34	24 h	Chlorella sp.	
		240	5 h	Bacteria	

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		3	23 °C	Experimental value

Conclusion

Contains bioaccumulative component(s)

12.4 Mobility in soil:

cyclohexane

(log) Koc

Parameter	Method	Value	Value determination
log Koc	Other	2.89	QSAR
Koc	Other	770	QSAR

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.15 atm m³/mol		25 °C		Experimental value
14900 Pa.m³/mol		20 °C		Calculated value

ethyl acetate

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	51.3 %	0 %	0.27 %	13.3 %	35.3 %	Calculated value

butanone

(log) Koc

Parameter	Method	Value	Value determination
Koc		34	Calculated value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
1.06 Pa.m³/mol				

zinc oxide

(log) Koc

Parameter	Method	Value	Value determination
log Koc		2.2	Literature study

2,6-di-tert-butyl-p-cresol

(log) Koc

Parameter	Method	Value	Value determination
Koc	PCKOCWIN v1.66	23030	Calculated value
log Koc	PCKOCWIN v1.66	4.362	Calculated value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
8.92E-5 atm m³/mol	SRC HENRYWIN v3.10			Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	0.37 %		30.4 %	58.5 %	10.7 %	Calculated value

colophony

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.8759	QSAR

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	98 %	0 %	0.9 %	0 %	1.3 %	Calculated value

###

(log) Koc

Parameter	Method	Value	Value determination
log Koc		3.1	QSAR

Conclusion

Contains component(s) with potential for mobility in the soil

Contains component(s) that adsorb(s) into the soil

12.5 Results of PBT and vPvB assessment:

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6 Other adverse effects:

Contact Adhesive 170TX gel

Global warming potential (GWP)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

acetone

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

cyclohexane

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ground water

Ground water pollutant

ethyl acetate

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ground water

Ground water pollutant

butanone

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ground water

Ground water pollutant

zinc oxide

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ground water

Ground water pollutant

2,6-di-tert-butyl-p-cresol

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

colophony

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ground water

Ground water pollutant

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

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Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods:

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
08 04 09* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other dangerous substances). Depending on branch of industry and production process, also other waste codes may be applicable. Hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

Incinerate under surveillance with energy recovery. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1 UN number:

UN number	1133

14.2 UN proper shipping name:

Proper shipping name	Adhesives, Special provision 640H

14.3 Transport hazard class(es):

Hazard identification number	33
Class	3
Classification code	F1

14.4 Packing group:

Packing group	III
Labels	3

14.5 Environmental hazards:

Environmentally hazardous substance mark	yes

14.6 Special precautions for user:

Special provisions	640H
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
Specific mention	Viscous liquid with a flash point lower than 23°C, which meets the conditions indicated in 2.2.3.1.4 of ADR

Rail (RID)

14.1 UN number:

UN number	1133

14.2 UN proper shipping name:

Proper shipping name	Adhesives, Special provision 640H

14.3 Transport hazard class(es):

Hazard identification number	33
Class	3
Classification code	F1

14.4 Packing group:

Packing group	III
Labels	3

14.5 Environmental hazards:

Environmentally hazardous substance mark	yes

14.6 Special precautions for user:

Special provisions	640H
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
Specific mention	Viscous liquid with a flash point lower than 23°C, which meets the conditions indicated in 2.2.3.1.4 of RID

Inland waterways (ADN)

14.1 UN number:

UN number	1133

14.2 UN proper shipping name:

Proper shipping name	Adhesives, Special provision 640H

14.3 Transport hazard class(es):

Class	3
Classification code	F1

14.4 Packing group:

Packing group	III
Labels	3

14.5 Environmental hazards:

Environmentally hazardous substance mark	yes

14.6 Special precautions for user:

Special provisions	640H
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
Specific mention	Viscous liquid with a flash point lower than 23°C, which meets the conditions indicated in 2.2.3.1.4 of ADN

Sea (IMDG/IMSBC)

14.1 UN number:

UN number	1133

14.2 UN proper shipping name:

Proper shipping name	Adhesives

14.3 Transport hazard class(es):

Class	3

14.4 Packing group:

Packing group	III
Labels	3

14.5 Environmental hazards:

Marine pollutant	P
Environmentally hazardous substance mark	yes

14.6 Special precautions for user:

Special provisions	223
Special provisions	955
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
Specific mention	Viscous liquid with a flash point lower than 23°C, which meets the conditions indicated in 2.3.2.3 of IMDG

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Annex II of MARPOL 73/78	Not applicable, based on available data

Air (ICAO-TI/IATA-DGR)

14.1 UN number:

UN number	1133

14.2 UN proper shipping name:

Proper shipping name	Adhesives

14.3 Transport hazard class(es):

Class	3

14.4 Packing group:

Packing group	III
Labels	3

14.5 Environmental hazards:

Environmentally hazardous substance mark	yes

14.6 Special precautions for user:

Special provisions	A3
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	10 L
Specific mention	Viscous liquid with a flash point lower than 23°C, which meets the conditions indicated in 3.3.3.1 of ICAO

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
77 %	

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· acetone · cyclohexane · ethyl acetate · butanone · hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects,2. Articles not complying with paragraph 1 shall not be placed on the market.3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304,4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even

		sucking the wick of lamps — may lead to life- threatening lung damage"; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
· acetone · cyclohexane · ethyl acetate · butanone	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — "whoopee" cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs.2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: "For professional users only".3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.
· cyclohexane	Cyclohexane	1. Shall not be placed on the market for the first time after 27 June 2010, for supply to the general public, as a constituent of neoprene-based contact adhesives in concentrations equal to or greater than 0,1 % by weight in package sizes greater than 350 g.2. Neoprene-based contact adhesives containing cyclohexane and not conforming to paragraph 1 shall not be placed on the market for supply to the general public after 27 December 2010.3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that neoprene-based contact adhesives containing cyclohexane in concentrations equal to or greater than 0,1 % by weight that are placed on the market for supply to the general public after 27 December 2010 are visibly, legibly and indelibly marked as follows: "— This product is not to be used under conditions of poor ventilation. — This product is not to be used for carpet laying.".

National legislation The Netherlands

Contact Adhesive 170TX gel

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 04
Waterbezwaarlijkheid	9

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SZW - List of reprotoxic substances (fertility)	Possible risk of impaired fertility

National legislation Germany

Contact Adhesive 170TX gel

WGK	2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

acetone

Schwangerschaft Gruppe	D
MAK 8-Stunden-Mittelwert ppm	Aceton; 500 ppm
MAK 8-Stunden-Mittelwert mg/m³	Aceton; 1200 mg/m³
TA-Luft	5.2.5

cyclohexane

Schwangerschaft Gruppe	D
MAK 8-Stunden-Mittelwert ppm	Cyclohexan; 200 ppm
MAK 8-Stunden-Mittelwert mg/m³	Cyclohexan; 700 mg/m³
TA-Luft	5.2.5; I

ethyl acetate

Schwangerschaft Gruppe	C
MAK 8-Stunden-Mittelwert ppm	Ethylacetat; 400 ppm
MAK 8-Stunden-Mittelwert mg/m³	Ethylacetat; 1500 mg/m³
TA-Luft	5.2.5

butanone

Schwangerschaft Gruppe	C
MAK 8-Stunden-Mittelwert ppm	2-Butanon; 200 ppm
MAK 8-Stunden-Mittelwert mg/m³	2-Butanon; 600 mg/m³
TA-Luft	5.2.5

zinc oxide

Schwangerschaft Gruppe	C
Schwangerschaft Gruppe	C
MAK 8-Stunden-Mittelwert mg/m³	Zink und seine anorganischen Verbindungen (alveolengängige Fraktion); 0,1 mg/m³; gemessen als alveolengängige Fraktion (vgl. Abschn. Vd) S. 191)
	Zink und seine anorganischen Verbindungen (einatembare Fraktion); 2 mg/m³; gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191)
TA-Luft	5.2.1

2,6-di-tert-butyl-p-cresol

MAK - Krebserzeugend Kategorie	4
Schwangerschaft Gruppe	C
MAK 8-Stunden-Mittelwert mg/m³	Butylhydroxytoluol (BHT); 10 mg/m³; gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191)
TA-Luft	5.2.5; I

colophony

TA-Luft	5.2.1

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Schwangerschaft Gruppe	D
MAK 8-Stunden-Mittelwert ppm	p-tert-Butylphenol; 0.080 ppm
MAK 8-Stunden-Mittelwert mg/m³	p-tert-Butylphenol; 0.5 mg/m³
TA-Luft	5.2.5; I
	5.2.5

National legislation France

Contact Adhesive 170TX gel

No data available

National legislation Belgium

Contact Adhesive 170TX gel

No data available

Other relevant data

Contact Adhesive 170TX gel

No data available

acetone

TLV - Carcinogen	Acetone; A4

2,6-di-tert-butyl-p-cresol

IARC - classification	3; Butylated hydroxytoluene (bht)
TLV - Carcinogen	Butylated hydroxytoluene (BHT); A4

15.2 Chemical safety assessment:

No chemical safety assessment is required.

SECTION 16: Other information

Full text of any R-phrases referred to under headings 2 and 3:

R36 Irritating to eyes
R36/38 Irritating to eyes and skin
R38 Irritating to skin
R41 Risk of serious damage to eyes
R43 May cause sensitisation by skin contact
R50 Very toxic to aquatic organisms
R51 Toxic to aquatic organisms
R53 May cause long-term adverse effects in the aquatic environment

R62 Possible risk of impaired fertility
R65 Harmful: may cause lung damage if swallowed
R66 Repeated exposure may cause skin dryness or cracking
R67 Vapours may cause drowsiness and dizziness

Full text of any H-statements referred to under headings 2 and 3:

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361f Suspected of damaging fertility.
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.
(*) = INTERNAL CLASSIFICATION BY BIG
PBT-substances = persistent, bioaccumulative and toxic substances
DSD Dangerous Substance Directive
DPD Dangerous Preparation Directive
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

M-factor

2,6-di-tert-butyl-p-cresol	1	Acute	BIG

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