



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

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Loctite 7255 900ml_Kit Comp. B

SDS No. : 431278
V006.0

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

1.1. Product identifier

Loctite 7255 900ml_Kit Comp. B

Contains:

4,4'-Methylenebis(cyclohexylamine)
m-Phenylenebis(methylamine)
1,6-Hexanediamine, 2,2,4-trimethyl-
N-(3-(Trimethoxysilyl)propyl)ethylenediamine

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

Intended use:
Epoxy Hardener

1.3. Details of the supplier of the safety data sheet

Henkel Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification


2.1. Classification of the substance or mixture

Classification (CLP):

Acute toxicity	Category 4
H302 Harmful if swallowed.	
Route of Exposure: Oral	
Skin corrosion	Category 1B
H314 Causes severe skin burns and eye damage.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - repeated exposure	Category 2
H373 May cause damage to organs through prolonged or repeated exposure.	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
Signal word:	Danger
Hazard statement:	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H373 May cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.
Precautionary statement: Prevention	P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement: Response	P333+P313 If skin irritation or rash occurs: Get medical advice/attention. 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 rinsing. P310 Immediately call a POISON CENTER or doctor.

2.3. Other hazards

None if used properly.

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

Part B of a two part adhesive

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
4,4'-Methylenebis(cyclohexylamine) 1761-71-3	217-168-8 01-2119541673-38	25- 50 %	Acute Tox. 4; Oral H302 Skin Corr. 1B H314 Skin Sens. 1; Dermal H317 STOT RE 2; Oral H373
Benzyl alcohol 100-51-6	202-859-9 01-2119492630-38	5- < 10 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Inhalation H332 Eye Irrit. 2 H319
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2	01-2119983522-33	5- < 10 %	Acute Tox. 4; Oral H302 Skin Corr. 1C H314 STOT RE 2; Oral H373 Aquatic Chronic 3 H412
m-Phenylenebis(methylamine) 1477-55-0	216-032-5 01-2119480150-50	1- < 3 %	Acute Tox. 4; Oral H302 Skin Corr. 1B H314 Skin Sens. 1; Dermal H317 Acute Tox. 4; Inhalation H332 Aquatic Chronic 3 H412
4-Tert-butylphenol 98-54-4	202-679-0 01-2119489419-21	1- < 2,5 %	Skin Irrit. 2; Dermal H315 Eye Dam. 1 H318 Repr. 2 H361f Aquatic Chronic 2 H411
Salicylic acid 69-72-7	200-712-3 01-2119486984-17	0,25- < 2,5 %	Acute Tox. 4; Oral H302 Eye Dam. 1 H318
1,6-Hexanediamine, 2,2,4-trimethyl- 3236-53-1	221-792-6	0,1- < 1 %	Aquatic Chronic 3 H412 Acute Tox. 4 H302 Skin Corr. 1B H314 Skin Sens. 1 H317
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	217-164-6 01-2119970215-39	0,1- < 1 %	Skin Sens. 1; Dermal H317 Eye Dam. 1 H318 Acute Tox. 4; Inhalation H332

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

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

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

Causes burns.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

SKIN: Rash, Urticaria.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

See section 10.

Do not expose to direct heat.

Oxides of carbon.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Avoid skin and eye contact.

Wear protective equipment.

See advice in section 8

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For large spills absorb onto inert absorbent material and place in sealed container for disposal.
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.
Use only in well-ventilated areas.
Gloves and safety glasses should be worn
See advice in section 8

Hygiene measures:

Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container.
Store in a cool, well-ventilated place.

7.3. Specific end use(s)

Epoxy Hardener

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure Limits**Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silicon carbide 409-21-2 [SILICON CARBIDE (NOT WHISKERS), RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon carbide 409-21-2 [SILICON CARBIDE (NOT WHISKERS), TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Quartz (SiO ₂) 14808-60-7 [SILICA, RESPIRABLE CRYSTALLINE]		0,1	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure LimitsValid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silicon carbide 409-21-2 [SILICON CARBIDE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		IR_OEL
Silicon carbide 409-21-2 [SILICON CARBIDE, TOTAL INHALABLE DUST]		10	Time Weighted Average (TWA):		IR_OEL
Quartz (SiO ₂) 14808-60-7 [QUARTZ, RESPIRABLE DUST (SEE CRYSTALLINE SILICA)]		0,1	Time Weighted Average (TWA):		IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Benzyl alcohol 100-51-6	soil				0,456 mg/kg		
Benzyl alcohol 100-51-6	sewage treatment plant (STP)					39 mg/L	
Benzyl alcohol 100-51-6	sediment (freshwater)				5,27 mg/kg		
Benzyl alcohol 100-51-6	sediment (marine water)				0,527 mg/kg		
Benzyl alcohol 100-51-6	aqua (marine water)					0,1 mg/L	
Benzyl alcohol 100-51-6	aqua (intermittent releases)					2,3 mg/L	
Benzyl alcohol 100-51-6	aqua (freshwater)					1 mg/L	
m-Phenylenebis(methylamine) 1477-55-0	aqua (freshwater)					0,094 mg/L	
m-Phenylenebis(methylamine) 1477-55-0	aqua (marine water)					0,0094 mg/L	
m-Phenylenebis(methylamine) 1477-55-0	aqua (intermittent releases)					0,152 mg/L	
m-Phenylenebis(methylamine) 1477-55-0	sewage treatment plant (STP)					10 mg/L	
m-Phenylenebis(methylamine) 1477-55-0	sediment (freshwater)				0,43 mg/kg		
m-Phenylenebis(methylamine) 1477-55-0	sediment (marine water)				0,043 mg/kg		
m-Phenylenebis(methylamine) 1477-55-0	soil				0,045 mg/kg		
4-Tert-butylphenol 98-54-4	aqua (marine water)					0,001 mg/L	
4-Tert-butylphenol 98-54-4	aqua (freshwater)					0,01 mg/L	
4-Tert-butylphenol 98-54-4	aqua (intermittent releases)					0,048 mg/L	
4-Tert-butylphenol 98-54-4	sediment (marine water)				0,0975 mg/kg		
4-Tert-butylphenol 98-54-4	sediment (freshwater)				0,975 mg/kg		
4-Tert-butylphenol 98-54-4	sewage treatment plant (STP)					1,5 mg/L	
4-Tert-butylphenol 98-54-4	soil				0,324 mg/kg		
4-Tert-butylphenol 98-54-4	oral				46,67 mg/kg		
Salicylic acid 69-72-7	aqua (freshwater)					0,2 mg/L	
Salicylic acid 69-72-7	aqua (marine water)					0,02 mg/L	
Salicylic acid 69-72-7	aqua (intermittent releases)					1 mg/L	
Salicylic acid 69-72-7	sewage treatment plant (STP)					162 mg/L	
Salicylic acid 69-72-7	sediment (freshwater)				1,42 mg/kg		
Salicylic acid 69-72-7	sediment (marine water)				0,142 mg/kg		
Salicylic acid 69-72-7	soil				0,166 mg/kg		
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	aqua (freshwater)					0,062 mg/L	

N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	aqua (marine water)					0,0062 mg/L	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	aqua (intermittent releases)					0,62 mg/L	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	sediment (freshwater)				0,22 mg/kg		
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	sediment (marine water)				0,022 mg/kg		
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	soil				0,0085 mg/kg		
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	sewage treatment plant (STP)					25 mg/L	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Benzyl alcohol 100-51-6	General population	oral	Acute/short term exposure - systemic effects		20 mg/kg bw/day	
Benzyl alcohol 100-51-6	General population	oral	Long term exposure - systemic effects		4 mg/kg bw/day	
Benzyl alcohol 100-51-6	Workers	inhalation	Acute/short term exposure - systemic effects		110 mg/m ³	
Benzyl alcohol 100-51-6	Workers	inhalation	Long term exposure - systemic effects		22 mg/m ³	
Benzyl alcohol 100-51-6	General population	inhalation	Acute/short term exposure - systemic effects		27 mg/m ³	
Benzyl alcohol 100-51-6	General population	inhalation	Long term exposure - systemic effects		5,4 mg/m ³	
Benzyl alcohol 100-51-6	Workers	dermal	Acute/short term exposure - systemic effects		40 mg/kg bw/day	
Benzyl alcohol 100-51-6	Workers	dermal	Long term exposure - systemic effects		8 mg/kg bw/day	
Benzyl alcohol 100-51-6	General population	dermal	Acute/short term exposure - systemic effects		20 mg/kg bw/day	
Benzyl alcohol 100-51-6	General population	dermal	Long term exposure - systemic effects		4 mg/kg bw/day	
m-Phenylenebis(methylamine) 1477-55-0	Workers	dermal	Long term exposure - systemic effects		0,33 mg/kg	
m-Phenylenebis(methylamine) 1477-55-0	Workers	inhalation	Long term exposure - systemic effects		1,2 mg/m ³	
m-Phenylenebis(methylamine) 1477-55-0	Workers	inhalation	Long term exposure - local effects		0,2 mg/m ³	
4-Tert-butylphenol 98-54-4	General population	dermal	Long term exposure - systemic effects		0,026 mg/kg	
4-Tert-butylphenol 98-54-4	General population	inhalation	Long term exposure - systemic effects		0,09 mg/m ³	
4-Tert-butylphenol 98-54-4	General population	oral	Long term exposure - systemic effects		0,026 mg/kg	
4-Tert-butylphenol 98-54-4	Workers	dermal	Long term exposure - systemic effects		0,071 mg/kg	
4-Tert-butylphenol 98-54-4	Workers	inhalation	Long term exposure - systemic effects		0,5 mg/m ³	
Salicylic acid 69-72-7	Workers	dermal	Long term exposure - systemic effects		2 mg/kg bw/day	
Salicylic acid 69-72-7	Workers	inhalation	Long term exposure - systemic effects		16 mg/m ³	
Salicylic acid 69-72-7	General population	oral	Acute/short term exposure - systemic effects		4 mg/kg bw/day	
Salicylic acid 69-72-7	General population	dermal	Long term exposure - systemic effects		1 mg/kg bw/day	
Salicylic acid 69-72-7	General population	inhalation	Long term exposure - systemic effects		4 mg/m ³	
Salicylic acid 69-72-7	General population	oral	Long term exposure -		1 mg/kg bw/day	

			systemic effects		
Salicylic acid 69-72-7	General population	inhalation	Long term exposure - local effects		0,2 mg/m ³
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Workers	inhalation	Long term exposure - systemic effects		35,3 mg/m ³
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Workers	dermal	Long term exposure - systemic effects		5 mg/kg bw/day
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Workers	dermal	Acute/short term exposure - systemic effects		5 mg/kg bw/day
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	General population	inhalation	Long term exposure - systemic effects		8,7 mg/m ³
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	General population	dermal	Long term exposure - systemic effects		2,5 mg/kg bw/day
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	General population	oral	Long term exposure - systemic effects		2,5 mg/kg bw/day
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	General population	dermal	Acute/short term exposure - systemic effects		17 mg/kg bw/day

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

Do not inhale vapors and fumes.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; \geq 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; \geq 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

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

Advices to personal protection equipment:

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid blue
Odor	ammoniacal
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Initial boiling point	> 180 °C (> 356 °F)
Flash point	> 100 °C (> 212 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (50 °C (122 °F))	< 700 mbar
Density (ρ)	1,47 g/cm ³
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Insoluble
Solubility (qualitative) (Solvent: Water)	Soluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with strong acids.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.
Avoid contact with acids and oxidizing agents.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

STOT-repeated exposure:

May cause damage to organs through prolonged or repeated exposure.

Oral toxicity:

Harmful if swallowed.

Skin irritation:

Causes severe skin burns and eye damage.

Eye irritation:

Corrosive
Avoid eye contact.

Sensitizing:

May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
4,4'- Methylenebis(cyclohexyla mine) 1761-71-3	LD50	380 mg/kg	oral		rat	EPA OPP 81-1 (Acute Oral Toxicity)
Benzyl alcohol 100-51-6	LD50	1.620 mg/kg	oral		rat	not specified
m- Phenylenebis(methylamin e) 1477-55-0	LD50	980 mg/kg	oral		rat	not specified
4-Tert-butylphenol 98-54-4	LD50	5.660 mg/kg	oral		rat	not specified
Salicylic acid 69-72-7	Acute toxicity estimate (ATE)	1.250 mg/kg	oral			Expert judgement
Salicylic acid 69-72-7	LD50	1.250 - 1.580 mg/kg			rat	OECD Guideline 401 (Acute Oral Toxicity)
1,6-Hexanediamine, 2,2,4-trimethyl- 3236-53-1	LD50	910 mg/kg	oral		rat	not specified
N-(3- (Trimethoxysilyl)propyl)e thylenediamine 1760-24-3	LD50	2.295 mg/kg	oral		rat	EPA OPPTS 870.1100 (Acute Oral Toxicity)

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Benzyl alcohol 100-51-6	Acute toxicity estimate (ATE)	4,17 mg/l	aerosol			Expert judgement
Benzyl alcohol 100-51-6	LC50	> 4,178 mg/l		4 h	rat	
m- Phenylenebis(methylamin e) 1477-55-0	LC50	1,16 mg/l	aerosol	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Salicylic acid 69-72-7	Acute toxicity estimate (ATE)	5,1 mg/l	aerosol			Expert judgement
N-(3- (Trimethoxysilyl)propyl)e thylenediamine 1760-24-3	LC50	1,49 - 2,44 mg/l	aerosol	4 h	rat	EPA OPPTS 870.1300 (Acute inhalation toxicity)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
4,4'- Methylenebis(cyclohexyla mine) 1761-71-3	LD50	2.110 mg/kg	dermal		rabbit	not specified
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2	Acute toxicity estimate (ATE)	> 2.000 mg/kg	dermal		rabbit	Expert judgement
4-Tert-butylphenol 98-54-4	LD50	> 16.000 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Salicylic acid 69-72-7	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
N-(3- (Trimethoxysilyl)propyl)e thylenediamine 1760-24-3	LD50	> 2.000 mg/kg	dermal		rat	EPA OPPTS 870.1200 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
4,4'- Methylenebis(cyclohexyla mine) 1761-71-3	corrosive	2,75 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Benzyl alcohol 100-51-6	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2	Category 1C (corrosive)			OECD Guideline 435 (In Vitro Membrane Barrier Test Method for Skin Corrosion)
4-Tert-butylphenol 98-54-4	irritating	5 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Salicylic acid 69-72-7	slightly irritating		rabbit	not specified

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
4,4'- Methylenebis(cyclohexyla mine) 1761-71-3	Category 1 (irreversible effects on the eye)		rabbit	not specified
Benzyl alcohol 100-51-6	Category II	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
4-Tert-butylphenol 98-54-4	Category 1 (irreversible effects on the eye)	1 s	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Salicylic acid 69-72-7	highly irritating		rabbit	Draize Test
N-(3- (Trimethoxysilyl)propyl)e thylenediamine 1760-24-3	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Benzyl alcohol 100-51-6	not sensitising	Guinea pig maximisa tion test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
m- Phenylenebis(methylamin e) 1477-55-0	sensitising	Mouse local lymphnod e assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
4-Tert-butylphenol 98-54-4	sensitising			not specified
N-(3- (Trimethoxysilyl)propyl)e thylenediamine 1760-24-3	sensitising	Mouse local lymphnod e assay (LLNA)	guinea pig	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Benzyl alcohol 100-51-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Benzyl alcohol 100-51-6	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
	negative			Drosophila melanogaster	OECD Guideline 477 (Genetic Toxicology: Sex-linked Recessive Lethal Test in Drosophila melanogaster)
m- Phenylenebis(methylamin e) 1477-55-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
	negative	in vitro mammalian chromosome aberration test	with and without		not specified
4-Tert-butylphenol 98-54-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
4-Tert-butylphenol 98-54-4	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
4,4'- Methylenebis(cyclohexyla mine) 1761-71-3	NOAEL=15 - 50 mg/kg	oral: gavage	52 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
m- Phenylenebis(methylamin e) 1477-55-0	LOAEL=>= 600 mg/kg	oral: gavage	28 daysdaily	rat	Guidelines for 28-Day Repeat Dose Toxicity Test (Japan)
4-Tert-butylphenol 98-54-4	LOAEL=>= 200 mg/kg	oral: gavage	daily	rat	not specified

SECTION 12: Ecological information**General ecological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Other adverse effects:

Not available.

12.1. Toxicity**Ecotoxicity:**

Do not empty into drains / surface water / ground water.
Harmful to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
4,4'- Methylenebis(cyclohexylamin e) 1761-71-3	LC50	> 100 mg/l	Fish	96 h	Leuciscus idus	DIN 38412-15
4,4'- Methylenebis(cyclohexylamin e) 1761-71-3	EC50	7,07 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4,4'- Methylenebis(cyclohexylamin e) 1761-71-3	EC50	> 140 - 200 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
4,4'- Methylenebis(cyclohexylamin e) 1761-71-3	EC10	100 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
4,4'- Methylenebis(cyclohexylamin e) 1761-71-3	EC20	> 1.000 mg/l	Bacteria	3 h	activated sludge, industrial	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
4,4'- Methylenebis(cyclohexylamin e) 1761-71-3	NOEC	4 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Benzyl alcohol 100-51-6	LC50	646 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Benzyl alcohol 100-51-6	EC50	360 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Benzyl alcohol 100-51-6	EC50	770 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Benzyl alcohol 100-51-6	NOEC	310 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Benzyl alcohol 100-51-6	EC10	658 mg/l	Bacteria	17 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test)
Benzyl alcohol 100-51-6	NOEC	51 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2	LC50	96 mg/l	Fish	96 h	Poecilia reticulata	OECD Guideline 203 (Fish, Acute Toxicity Test)
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2	EC50	15,4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2	EC10	1,2 mg/l	Algae	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2	EC50	43,94 mg/l	Algae	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
m-Phenylenebis(methylamine) 1477-55-0	LC50	> 100 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
m-Phenylenebis(methylamine) 1477-55-0	EC50	16 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
m-Phenylenebis(methylamine) 1477-55-0	EC50	33,3 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
m-Phenylenebis(methylamine) 1477-55-0	NOEC	22,9 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
m-Phenylenebis(methylamine) 1477-55-0	NOEC	4,7 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

4-Tert-butylphenol 98-54-4	LC50	5,14 mg/l	Fish	96 h	Pimephales promelas	EU Method C.1 (Acute Toxicity for Fish)
	NOEC	> 0,01 - 0,1 mg/l	Fish	128 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage toxicity test)
4-Tert-butylphenol 98-54-4	EC50	4,8 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4-Tert-butylphenol 98-54-4	EC50	11,2 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
4-Tert-butylphenol 98-54-4	EC10	145 mg/l	Bacteria	6 h		not specified
4-Tert-butylphenol 98-54-4	NOEC	0,73 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Salicylic acid 69-72-7	LC50	90 mg/l	Fish	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Salicylic acid 69-72-7	EC50	105 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Salicylic acid 69-72-7	EC50	> 100 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Salicylic acid 69-72-7	EC 50	> 1.000 mg/l	Bacteria	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
N-(3-(Trimethoxysilyl)propyl)ethyl enediamine 1760-24-3	LC50	168 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
N-(3-(Trimethoxysilyl)propyl)ethyl enediamine 1760-24-3	EC50	87,4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
N-(3-(Trimethoxysilyl)propyl)ethyl enediamine 1760-24-3	EC50	8,8 mg/l	Algae	96 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	3,1 mg/l	Algae	96 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
N-(3-(Trimethoxysilyl)propyl)ethyl enediamine 1760-24-3	EC 50	435 mg/l	Bacteria	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
N-(3-(Trimethoxysilyl)propyl)ethyl enediamine 1760-24-3	NOEC	> 1 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

12.2. Persistence and degradability

Persistence and Biodegradability:

No data available for the product.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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4,4'-Methylenebis(cyclohexylamine) 1761-71-3	Not readily biodegradable.	aerobic	0 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Benzyl alcohol 100-51-6	readily biodegradable	aerobic	92 - 96 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
4-Tert-butylphenol 98-54-4	readily biodegradable	aerobic	98 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)
Salicylic acid 69-72-7	readily biodegradable	aerobic	88,1 %	EU Method C.4-F (Determination of the "Ready" Biodegradability MITI Test)
		aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3		aerobic	50 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil**Mobility:**

Cured adhesives are immobile.

Bioaccumulative potential:

No data available for the product.

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
4,4'-Methylenebis(cyclohexylamine) 1761-71-3	2,2	< 60	60 d	Cyprinus carpio	24 °C	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
23 °C					OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)	
Benzyl alcohol 100-51-6	1,05				20 °C	EU Method A.8 (Partition Coefficient)
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2	2,68	18 - 219	56 d	Cyprinus carpio	21 °C	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2						EU Method A.8 (Partition Coefficient)
4-Tert-butylphenol 98-54-4	3				23 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Salicylic acid 69-72-7	2,26				20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	-1,67					not specified

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB

Benzyl alcohol 100-51-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
m-Phenylenebis(methylamine) 1477-55-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
4-Tert-butylphenol 98-54-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Salicylic acid 69-72-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

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

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

SECTION 14: Transport information**14.1. UN number**

ADR	2735
RID	2735
ADN	2735
IMDG	2735
IATA	2735

14.2. UN proper shipping name

ADR	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated)
RID	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated)
ADN	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated)
IMDG	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated)
IATA	Amines, liquid, corrosive, n.o.s. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated)

14.3. Transport hazard class(es)

ADR	8
RID	8
ADN	8
IMDG	8
IATA	8

14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine pollutant
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content

< 3 %

(2010/75/EC)

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:

- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H361f Suspected of damaging fertility.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Label elements (DPD):

C - Corrosive

N - Dangerous for the environment



Risk phrases:

- R22 Harmful if swallowed.
- R35 Causes severe burns.
- R43 May cause sensitisation by skin contact.
- R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S57 Use appropriate container to avoid environmental contamination.
- S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains:

- 4,4'-Methylenebis(cyclohexylamine),
- m-Phenylenebis(methylamine)

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.

