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

1.1. Product identifier

Härter FH für cds-Grundierung farblos

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

Use of the substance/preparation

Coating material

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

cds Polymere GmbH & Co. KG
Gau-Bickelheimer Str. 72
55576 Sprendlingen/Rhh.
Telephone no. +49(6701) 9350-0
Fax no. +49(6701) 9350-50
Information provided by / telephone info@cds-polymere.de

1.4. Emergency telephone number

Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302
Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Repr. 2	H361f
Aquatic Chronic 2	H411

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains: 3-aminomethyl-3,5,5-trimethylcyclohexylamine; 3-aminopropyltriethoxysilane; 4-tert-Butylphenol; m-Phenylenebis(methylamine); 2,2,4-Trimethylhexane-1,6-diamine; salicylic acid; Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer; Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol; benzyl alcohol; Paraformaldehyde, polymeric reaction products with 4-tert-butylphenol, m-phenylenbis(methylamine) and trimethylhexane-1,6-diamine

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains substances meeting the vPvB criteria. See SECTION 3 in this safety data sheet. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product contains substances that have endocrine disrupting properties with respect to non-target organisms. See SECTION 3 of this safety data sheet.

SECTION 3: Composition/information on ingredients ***

3.2. Mixtures

Hazardous ingredients

benzyl alcohol

CAS No.	100-51-6				
EINECS no.	202-859-9				
Registration no.	01-2119492630-38-XXXX				
Concentration	>=	10	<	25	%

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302
Eye Irrit. 2	H319
Skin Sens. 1B	H317

ATE	oral	1.200	mg/kg

4-tert-Butylphenol

CAS No.	98-54-4				
EINECS no.	202-679-0				
Registration no.	01-2119489419-21-XXXX				
Concentration	>=	10	<	25	%

Classification (Regulation (EC) No. 1272/2008)

Skin Irrit. 2	H315
Eye Dam. 1	H318
Repr. 2	H361f
Aquatic Chronic 1	H410

Concentration limits (Regulation (EC) No. 1272/2008)

Aquatic Chronic	H410	M = 1

1

Supplemental information

The substance is contained in the Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

3-aminomethyl-3,5,5-trimethylcyclohexylamine

CAS No. 2855-13-2
EINECS no. 220-666-8
Registration no. 01-2119514687-32-XXXX
Concentration >= 10 < 25 %
Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302
Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1A	H317

Concentration limits (Regulation (EC) No. 1272/2008)

Skin Sens. 1A	H317	>= 0,001 %	
ATE	oral	1.030	mg/kg

Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer

CAS No. 68609-08-5
EINECS no. 614-657-1
Registration no. REACH ANNEX V NO. 4
Concentration >= 10 < 25 %
Classification (Regulation (EC) No. 1272/2008)

Skin Corr. 1B	H314
Eye Dam. 1	H318

m-Phenylenebis(methylamine)

CAS No. 1477-55-0
EINECS no. 216-032-5
Registration no. 01-2119480150-50-XXXX
Concentration >= 10 < 25 %
Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302
Aquatic Chronic 3	H412
Skin Corr. 1B	H314
Acute Tox. 4	H332
Eye Dam. 1	H318
Skin Sens. 1B	H317

ATE	oral	980	mg/kg
ATE	inhalative, Dust/Mist	1,34	mg/l
cATpE	inhalative, Vapors	11	mg/l

Paraformaldehyde, polymeric reaction products with 4-tert-butylphenol, m-phenylenbis(methylamine) and trimethylhexane-1,6-diamine

Registration no. POLYMER
Concentration >= 10 < 25 %
Classification (Regulation (EC) No. 1272/2008)

Eye Dam. 1	H318
Skin Sens. 1	H317
Aquatic Chronic 3	H412

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

EINECS no. 700-960-7
Registration no. 01-2119555274-38-XXXX

Concentration >= 1 < 10 %
Classification (Regulation (EC) No. 1272/2008)
Skin Irrit. 2 H315
Skin Sens. 1 H317
Aquatic Chronic 3 H412

Supplemental information
The substance is contained in the Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

2,2,4-Trimethylhexane-1,6-diamine
CAS No. 25513-64-8
EINECS no. 247-063-2
Registration no. 01-2119560598-25-XXXX
Concentration >= 1 < 5 %
Classification (Regulation (EC) No. 1272/2008)
Skin Corr. 1A H314
Acute Tox. 4 H302
Skin Sens. 1A H317
Eye Dam. 1 H318

ATE oral 910 mg/kg

3-aminopropyltriethoxysilane
CAS No. 919-30-2
EINECS no. 213-048-4
Registration no. 01-2119480479-24-XXXX
Concentration >= 1 < 5 %
Classification (Regulation (EC) No. 1272/2008)
Acute Tox. 4 H302
Skin Corr. 1B H314
Eye Dam. 1 H318
Skin Sens. 1 H317

ATE oral 1.490 mg/kg

salicylic acid
CAS No. 69-72-7
EINECS no. 200-712-3
Registration no. 01-2119486984-17-XXXX
Concentration >= 1 < 2,5 %
Classification (Regulation (EC) No. 1272/2008)
Eye Dam. 1 H318
Acute Tox. 4 H302
Repr. 2 H361d

ATE oral 891 mg/kg

Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).
Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol; 4-tert-Butylphenol

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, soaked clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid. Clean body thoroughly (bath, shower). In any case show the physician the Safety Data Sheet.

After inhalation

Ensure supply of fresh air. Remove affected person from danger area. Seek medical advice immediately. Give a Cortison spray at an early stage.

After skin contact

Wash off immediately with soap and water. Seek medical advice immediately.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

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

Until now no symptoms known so far.

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

Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry powder

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible. Carbon monoxide (CO); Carbon dioxide (CO2); Pyrolysis products

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor`s instructions.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of absorbed material in accordance with the regulations.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid formation of aerosols. Perform filling operations only at stations with exhaust ventilation facilities. Provide suitable exhaust ventilation at the processing machines. If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Provide solvent-resistant and impermeable floor.

Hints on storage assembly

Do not store together with foodstuffs.

Further information on storage conditions

Do not keep at temperatures above 20 °C.

7.3. Specific end use(s)

Read attached instructions before use.

SECTION 8: Exposure controls/personal protection ***

8.1. Control parameters

Exposure limit values

m-Phenylenebis(methylamine)

List	ACGIH			
Type	C			
Value	0,1	mg/m³		

m-Phenylenebis(methylamine)

List	MAK(GKV 2003)
Remarks: als Dampf und Aerosol; vgl. Abschn. IV	

4-tert-Butylphenol

List	TRGS 900			
Type	AGW			
Value	0,5	mg/m³	0,08	ppm(V)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

List	MAK(GKV 2003)

Biological limit values

4-tert-Butylphenol

List	BGW (TRGS 903)	
Value	2	mg/l
Parameter	4-tert-Butylphenol	
Testing material	Urine (U)	

Test date	End of exposure or end of shift (b)

Other information

Abbreviations: E = respirable part, A = alveoli absorbable part
There are not known any further control parameters.

Derived No/Minimal Effect Levels (DNEL/DMEL)

benzyl alcohol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	8	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	22	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	110	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	40	mg/kg

m-Phenylenebis(methylamine)

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	dermal	
Concentration	0,33	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	inhalative	
Concentration	1,2	mg/m³

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	0,073	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	

Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	20,1	mg/m³

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	dermal	
Concentration	3,5	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	inhalative	
Concentration	1,4	mg/kg

salicylic acid

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	2	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	5	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	5	mg/m³

4-tert-Butylphenol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Concentration	0,071	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Concentration	0,5	mg/m³

3-aminopropyltriethoxysilane

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	

Mode of action	Systemic effects	
Concentration	14	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	2	mg/kg

Predicted No Effect Concentration (PNEC)

benzyl alcohol

Type of value	PNEC	
Type	Water	
Concentration	1	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	2,31	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,1	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	39	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	5,27	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,527	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,456	mg/kg

m-Phenylenebis(methylamine)

Type of value	PNEC	
Type	Freshwater	
Concentration	0,094	mg/l
Type of value	PNEC	
Type	Marine	
Concentration	0,0094	mg/l

2,2,4-Trimethylhexane-1,6-diamine

Type of value	PNEC	
Type	Freshwater	
Concentration	0,102	mg/l
Type of value	PNEC	
Type	Marine	

Concentration	0,01	mg/l

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Type of value	PNEC	
Type	Freshwater	
Concentration	0,06	mg/l
Type of value	PNEC	
Type	Marine	
Concentration	0,006	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,23	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	3,18	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	5,784	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,578	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	1,121	mg/kg

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Type of value	PNEC	
Type	Freshwater	
Concentration	0,014	mg/l
Type of value	PNEC	
Type	Marine	
Concentration	0,0014	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,14	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	2,4	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	212	mg/kg
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	1064	mg/kg
Type of value	PNEC	

Type	Marine sediment		
Concentration	106		mg/kg

salicylic acid

Type of value	PNEC		
Type	Freshwater		
Concentration	0,2		mg/l
Type of value	PNEC		
Type	Marine		
Concentration	0,02		mg/l
Type of value	PNEC		
Type	Water (intermittent release)		
Concentration	1		mg/l
Type of value	PNEC		
Type	Sewage treatment plant (STP)		
Concentration	162		mg/l
Type of value	PNEC		
Type	Freshwater sediment		
Concentration	1,42		mg/kg
Type of value	PNEC		
Type	Marine sediment		
Concentration	0,142		mg/kg
Type of value	PNEC		
Type	Soil		
Concentration	0,166		mg/kg

4-tert-Butylphenol

Type of value	PNEC		
Type	Freshwater		
Concentration	0,01		mg/l
Type of value	PNEC		
Type	Marine		
Concentration	0,001		mg/l

3-aminopropyltriethoxysilane

Type of value	PNEC		
Type	Saltwater		
Concentration	0,05		mg/l
Type of value	PNEC		
Type	Marine sediment		
Concentration	0,18		mg/kg
Type of value	PNEC		
Type	Soil		
Concentration	0,069		mg/kg
Type of value	PNEC		
Type	Sewage treatment plant (STP)		
Concentration	0,81	1,3	mg/l

Type of value	PNEC	
Type	Freshwater	
Concentration	0,5	mg/l

Type of value	PNEC	
Type	Freshwater sediment	
Concentration	1,8	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Do not eat, drink or smoke during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

Respiratory protection

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Short term: filter apparatus, combination filter A-P2; The respiratory protection must comply with the relevant CEN standards.

Hand protection

Chemical resistant gloves

Appropriate Material	nitrile		
Material thickness	>=	0,3	mm
Breakthrough time	>=	480	min

Hand protection must comply with EN 374.
Check leak-tightness/impermeability prior to use.

Eye protection

Safety glasses with side protection shield; Face shield; Eye protection must comply with EN 166.

Body protection

Clothing as usual in the chemical industry. Protective shoes; Personal protective clothing must comply with the relevant CEN standards.

SECTION 9: Physical and chemical properties ***

9.1. Information on basic physical and chemical properties

Physical state	liquid
Odour	amine-like
Colour	yellow

Melting point

Remarks	not determined

Freezing point

Remarks	not determined

Boiling point or initial boiling point and boiling range

Value	>	200	°C
Pressure		1013	hPa

Flammability

evaluation	not determined

Upper and lower explosive limits

Remarks	not determined

Flash point

Value	>	100			°C

Ignition temperature

Remarks: not determined

Decomposition temperature

Remarks: not determined

pH value

Value	11	to	12	
Concentration/H2O	1	%		
Temperature	20	°C		

Viscosity

Remarks: not determined

Solubility(ies)

Remarks: not determined

Partition coefficient n-octanol/water (log value)

Remarks: not determined

Vapour pressure

Remarks: not determined

Density and/or relative density

Value	1		g/cm³
Temperature	23	°C	

Relative vapour density

Remarks: not determined

9.2. Other information

Odour threshold

Remarks: not determined

Evaporation rate (ether = 1) :

Remarks: not determined

Solubility in water

Remarks: immiscible

Explosive properties

evaluation: not determined

Oxidising properties

Remarks: not determined

Other information

None known

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

No hazardous reactions known.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

No hazardous reactions known.

10.5. Incompatible materials

Reactions with strong oxidising agents. Reactions with strong acids. Reactions with strong alkalies.

10.6. Hazardous decomposition products

Toxic gases/vapours, Irritant gases/vapours

SECTION 11: Toxicological information ***

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

Acute oral toxicity

ATE		1.952,19 61	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	The classification criteria are met.		

Acute oral toxicity (Components)

benzyl alcohol

ATE		1200	mg/kg

m-Phenylenebis(methylamine)

Species	mouse		
LD50		1180	mg/kg

m-Phenylenebis(methylamine)

Species	rat		
LD50		980	mg/kg

2,2,4-Trimethylhexane-1,6-diamine

Species	rat		
LD50		910	mg/kg

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Species	rat		
LD50		1030	mg/kg

3-aminomethyl-3,5,5-trimethylcyclohexylamine

ATE		1030	mg/kg

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 423		

salicylic acid

Species	rat		
LD50		891	mg/kg

4-tert-Butylphenol

Species	rat		
LD50	>	2000	mg/kg

3-aminopropyltriethoxysilane

Species	rat		
LD50		1490	mg/kg
Method	EPA		

3-aminopropyltriethoxysilane

Species	rat		
NOAEL		200	mg/kg
Duration of exposure		90 d	

Acute dermal toxicity

Remarks	Based on available data, the classification criteria are not met.

Acute dermal toxicity (Components)

benzyl alcohol

Species	rabbit		
LD50	>	2000	mg/kg

m-Phenylenebis(methylamine)

Species	rabbit		
LD50		3100	mg/kg

m-Phenylenebis(methylamine)

Species	rat		
LD50	>	3100	mg/kg

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Species	Rats (male/female)		
LD50	>	2000	mg/kg

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

salicylic acid

Species	rat		
LD50	>	2000	mg/kg

4-tert-Butylphenol

Species	rabbit		
LD50	>	2000	mg/kg

3-aminopropyltriethoxysilane

Species	rabbit		
LD50	>	2000	mg/kg
Method	EPA		

Acute inhalational toxicity

ATE		85,4303	mg/l
Administration/Form	Vapors		
Method	calculated value (Regulation (EC) No. 1272/2008)		
ATE		10,407	mg/l
Administration/Form	Dust/Mist		
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	Based on available data, the classification criteria are not met.		

Acute inhalative toxicity (Components)

benzyl alcohol

Species	rat			
LC50	>	4,178		mg/l
Duration of exposure		4	h	
Administration/Form	Dust/Mist			
Method	OECD 403			
Remarks	Based on available data, the classification criteria are not met.			

benzyl alcohol

Remarks	Expert judgement

m-Phenylenebis(methylamine)

Species	rat			
LC50		1,34		mg/l
Duration of exposure		4	h	
Administration/Form	Dust/Mist			

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Species	rat		
LC50	>	5,01	mg/l

Duration of exposure	4	h	
Administration/Form	Dust/Mist		

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Species	rat		
LC0	4,9		mg/l
Duration of exposure	4	h	
Administration/Form	Dust/Mist		
Method	OECD 403		
Remarks	Saturation Concentration: No demonstrable toxic effect		

4-tert-Butylphenol

Species	rat		
LC50	5600		mg/l
Duration of exposure	4	h	
Method	OECD 403		

3-aminopropyltriethoxysilane

Species	rat		
LC50	> 20		mg/l
Duration of exposure	4	h	
Administration/Form	Vapors		
Method	OECD 403		

Skin corrosion/irritation

evaluation	corrosive
Remarks	The classification criteria are met.

Skin corrosion/irritation (Components)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

evaluation	strongly corrosive

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Species	rabbit
evaluation	irritant
Method	OECD 404

Serious eye damage/irritation

evaluation	corrosive
Remarks	The classification criteria are met.

Serious eye damage/irritation (Components)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

evaluation	corrosive

benzyl alcohol

Species	rabbit
evaluation	irritant
Method	OECD 405

Sensitization

evaluation	May cause sensitization by skin contact.
Remarks	The classification criteria are met.

Sensitization (Components)

benzyl alcohol

evaluation	sensitizing

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

evaluation	sensitizing

Subacute, subchronic, chronic toxicity

Remarks	not determined

Mutagenicity

Remarks Based on available data, the classification criteria are not met.

Reproductive toxicity

evaluation Suspected of damaging fertility.
Remarks The classification criteria are met.

Carcinogenicity

Remarks Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)

Single exposure
Remarks Based on available data, the classification criteria are not met.

Repeated exposure
Remarks Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Experience in practice

Inhalation may lead to irritation of the respiratory tract.

Other information

No toxicological data are available.

SECTION 12: Ecological information ***

12.1. Toxicity

General information

not determined

Fish toxicity (Components)

benzyl alcohol

Species	Fathead minnow (Pimephales promelas)		
LC50	460		mg/l
Duration of exposure	96	h	

benzyl alcohol

Species	golden orfe (Leuciscus idus)		
LC50	> 645		mg/l
Duration of exposure	96	h	

m-Phenylenebis(methylamine)

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	> 100		mg/l
Duration of exposure	96	h	

m-Phenylenebis(methylamine)

Species	Oryzias latipes		
LC50	87,6		mg/l
Duration of exposure	96	h	

2,2,4-Trimethylhexane-1,6-diamine

Species	golden orfe (Leuciscus idus)		
LC50	174		mg/l
Duration of exposure	48	h	

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Species	golden orfe (Leuciscus idus)			
LC50	110			mg/l
Duration of exposure	96	h		
Method	OECD 203			

salicylic acid

Species	Fathead minnow (Pimephales promelas)			
LC50	1380			mg/l
Duration of exposure	96	h		

4-tert-Butylphenol

Species	rainbow trout (Oncorhynchus mykiss)			
LC50	> 1			mg/l
Duration of exposure	96	h		

4-tert-Butylphenol

Species	Fathead minnow (Pimephales promelas)			
LC50	5,1			mg/l
Duration of exposure	96	h		

4-tert-Butylphenol

Species	golden orfe (Leuciscus idus)			
LC50	1,5			mg/l
Duration of exposure	48	h		

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Species	zebra fish (Brachydanio rerio)			
LL50	25,8			mg/l
Duration of exposure	96	h		
Method	OECD 203			

3-aminopropyltriethoxysilane

Species	Zebrabaerbling			
LC0	> 934			mg/l

Daphnia toxicity (Components)

benzyl alcohol

Species	Daphnia magna			
EC50	230			mg/l
Duration of exposure	48	h		

m-Phenylenebis(methylamine)

Species	Daphnia magna			
EC50	15,2			mg/l
Duration of exposure	48	h		

2,2,4-Trimethylhexane-1,6-diamine

Species	Daphnia magna			
EC50	31,5			mg/l
Duration of exposure	24	h		

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Species	Daphnia magna			
EC50	23			mg/l
Duration of exposure	48	h		
Method	OECD 202			

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Species	Daphnia magna			
EL50	14	to	51	mg/l
Duration of exposure	48	h		
Method	OECD 202			

salicylic acid

Species	Daphnia magna			
EC50	870			mg/l

Duration of exposure	48	h		

4-tert-Butylphenol

Species	Daphnia magna			
EC50	3,9			mg/l
Duration of exposure	48	h		

3-aminopropyltriethoxysilane

Species	Daphnia magna			
EC50	331			mg/l
Duration of exposure	48	h		

Algae toxicity (Components)

benzyl alcohol

Species	Pseudokirchneriella subcapitata			
IC50	770			mg/l
Duration of exposure	72	h		

m-Phenylenebis(methylamine)

Species	Pseudokirchneriella subcapitata			
EC50	33,3			mg/l
Duration of exposure	72	h		

2,2,4-Trimethylhexane-1,6-diamine

Species	Scenedesmus subspicatus			
ErC50	43,5			mg/l
Duration of exposure	72	h		

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Species	Scenedesmus subspicatus			
EC50	37			mg/l
Duration of exposure	72	h		

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Species	Scenedesmus subspicatus			
EL50	15			mg/l
Duration of exposure	72	h		
Method	OECD 201			

salicylic acid

Species	Desmodesmus subspicatus			
EC50	>	100		mg/l
Duration of exposure	72	h		

4-tert-Butylphenol

Species	Selenastrum capricornutum			
EC50	<		100	mg/l
Duration of exposure	72	h		

4-tert-Butylphenol

Species	Pseudokirchneriella subcapitata			
EC50	14			mg/l
Duration of exposure	72	h		

3-aminopropyltriethoxysilane

Species	Desmodesmus subspicatus			
EC50	>	1000		mg/l
Duration of exposure	72	h		
Method	OECD 201			

3-aminopropyltriethoxysilane

Species	Desmodesmus subspicatus			
NOEC	1,3			mg/l
Duration of exposure	72	h		
Method	OECD 201			

Bacteria toxicity (Components)

benzyl alcohol

Species	Pseudomonas putida		
EC10	> 658		mg/l
Duration of exposure	16	h	

benzyl alcohol

Species	Pseudomonas putida		
EC50	390		mg/l
Duration of exposure	24	h	

m-Phenylenebis(methylamine)

Species	activated sludge		
EC50	> 1000		mg/l
Duration of exposure	0,5	h	

2,2,4-Trimethylhexane-1,6-diamine

Species	Pseudomonas putida		
EC50	89		mg/l
Duration of exposure	17	h	

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Species	Pseudomonas putida		
EC10	1120		mg/l
Duration of exposure	16	h	

4-tert-Butylphenol

Species	activated sludge		
EC50	10		mg/l
Duration of exposure	3	h	

3-aminopropyltriethoxysilane

Species	Pseudomonas putida		
EC10	13		mg/l
Duration of exposure	5,75	h	

12.2. Persistence and degradability

General information

not determined

Biodegradability (Components)

benzyl alcohol

Value	95		%
Duration of test	21	d	
evaluation	Readily biodegradable (according to OECD criteria)		
Method	OECD 301A / ISO 7827		

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

evaluation	not readily degradable

12.3. Bioaccumulative potential

General information

not determined

Partition coefficient n-octanol/water (log value)

Remarks	not determined

Octanol/water partition coefficient (log Pow) (Components)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

log Pow	0,79

3-aminopropyltriethoxysilane

log Pow	1,7

benzyl alcohol

log Pow	1	
Temperature	20	°C

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

log Pow	6,3

Bioconcentration factor (BCF) (Components)

benzyl alcohol

BCF	1,37

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

BCF	3000

12.4. Mobility in soil

General information

not determined

Mobility in soil (Components)

3-aminomethyl-3,5,5-trimethylcyclohexylamine
Moderately mobile in soils

12.5. Results of PBT and vPvB assessment

General information

not determined

Results of PBT and vPvB assessment

The product contains no PBT substances
The product contains vPvB-substances.

Results of PBT and vPvB assessment (Ingredients)

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol
The substance meets vPvB-criteria.

12.6 Endocrine disrupting properties

General information

not determined

Endocrine disrupting properties with respect to the envrionment

The product contains substances that have endocrine disrupting properties with respect to non-target organisms.

Endocrine disrupting properties with respect to the envrionment (Components)

4-tert-Butylphenol
This substance has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

SECTION 14: Transport information ***

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	2735	2735	2735
14.2. UN proper shipping name	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-Phenylenebis(methylamine), 4-tert-Butylphenol)	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-Phenylenebis(methylamine), 4-tert-Butylphenol)	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-Phenylenebis(methylamine), 4-tert-Butylphenol)
14.3. Transport hazard class(es)	8	8	8
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 l	1 l	
Transport category	2		
14.5. Environmental hazards	 ENVIRONMENTALLY HAZARDOUS	Marine Pollutant  ENVIRONMENTALLY HAZARDOUS	 ENVIRONMENTALLY HAZARDOUS
Tunnel restriction code	E		

Information for all modes of transport

14.6. Special precautions for user

The relevant transport regulations have to be considered.

Other information

14.7 Maritime transport in bulk according to IMO instruments

no data

SECTION 15: Regulatory information

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

Major-accident categories acc. 2012/18/EU

Category	E2	Hazardous to the Aquatic Environment	200000	kg	500000	kg

VOC

VOC (EU)	0	%	0	g/l

Other regulations, restrictions and prohibition regulations

Handling epoxy resin systems safely (published by PlasticsEurope) www.plasticseurope.org
This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content.
EU2004/42/IIA(j)500(2010): <500g/l VOC

Restriction according to annex XVII to regulation (EU) No 1907/2006

Conditions of restriction for the entries Annex XVII REACH should be considered.

Other information

The product contains substances according to: Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302	Calculation method
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 2	H361f	Calculation method
Aquatic Chronic 2	H411	Calculation method

Hazard statements listed in Chapter 2/3

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.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 2/3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1A	Skin corrosion, Category 1A
Skin Corr. 1B	Skin corrosion, Category 1B

Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1A	Skin sensitization, Category 1A
Skin Sens. 1B	Skin sensitization, Category 1B

Abbreviations

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route
RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
CAS: Chemical Abstracts Service
EAK: Europäischer Abfallkatalog
VOC: Volatile Organic Compound
MAK: Maximale Arbeitsplatz-Konzentration
AGW: Arbeitsplatzgrenzwert
BGW: Biologischer Grenzwert
NOEC: No observable effect concentration
LD: Lethal dose
LC: Lethal concentration
PBT: Persistent, Bioaccumulative and Toxic
vPvB: Very persistent and very bioaccumulative
SVHC: Substances of very high concern
DNEL: Derived no effect level
PNEC: Predicted no effect concentration
OECD: Organisation for Economic Co-operation and Development
REACH: Registration, Evaluation, Autohorisation and Restriction of Chemicals
TRGS: Technische Regeln für Gefahrstoffe

Information about Safety Data Sheets Preparers

Oliver Nickel, o.nickel@cds-polymere.de

Supplemental information

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.