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

1.1. Product identifier

Härter für cds-Grundierung MB/MB-eco

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

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.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.

H317	May cause an allergic skin reaction.
H412	Harmful 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: benzyl alcohol; m-Phenylenebis(methylamine); 3-aminomethyl-3,5,5-trimethylcyclohexylamine; 3,6,9-triazaundecamethylenediamine; Fatty acids C18 unsat, reaction products with triethylenetetramine ; polymeric polyamidoamine

Supplemental information

EUH071 Corrosive to the respiratory tract.

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

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	>=	25	<	50	%

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

Acute Tox. 4	H302
Acute Tox. 4	H332

ATE	oral	1.620	mg/kg
cATpE	inhalative, Dust/Mist	1,5	mg/l
cATpE	inhalative, Vapors	11	mg/l

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

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

3,6,9-triazaundecamethylenediamine

CAS No.	112-57-2				
EINECS no.	203-986-2				
Registration no.	01-2119487290-37-XXXX				
Concentration	>=	1	<	10	%

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

Acute Tox. 4	H302
Acute Tox. 4	H312
Skin Corr. 1B	H314
Skin Sens. 1	H317
Aquatic Chronic 2	H411

ATE	oral	1.716	mg/kg
ATE	dermal	1.260	mg/kg

2,4,6-tris(dimethylaminomethyl)phenol

CAS No.	90-72-2				
EINECS no.	202-013-9				
Registration no.	01-2119560597-27-XXXX				
Concentration	>=	1	<	10	%

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

Acute Tox. 4	H302
Skin Irrit. 2	H315
Eye Irrit. 2	H319

polymeric polyamidoamine

Registration no.	POLYMER				
Concentration	>=	1	<	2,5	%

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

Eye Dam. 1	H318
Skin Irrit. 2	H315
Skin Sens. 1	H317
Aquatic Chronic 2	H411

Fatty acids C18 unsat, reaction products with triethylenetetramine

CAS No.	1226892-44-9				
EINECS no.	629-765-4				
Registration no.	01-2119490750-36-XXXX				
Concentration	>=	0,1	<	1	%

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

Skin Corr. 1C	H314
Skin Sens. 1	H317
Aquatic Acute 1	H400
Aquatic Chronic 1	H410
Eye Dam. 1	H318

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

Aquatic Chronic 1	H410	M = 1
Aquatic Acute 1	H400	M = 1

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

Keep under lock and key or accessible only to specialists or people who are authorized.

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	

3-aminomethyl-3,5,5-trimethylcyclohexylamine

List	MAK(GKV 2003)

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

2,4,6-tris(dimethylaminomethyl)phenol

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	0,53	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	0,15	mg/kg/d

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	2,1	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Short term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,6	mg/kg/d

3,6,9-triazaundecamethylenediamine

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	0,25	mg/cm²

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	0,82	mg/m³

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

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

2,4,6-tris(dimethylaminomethyl)phenol

Type of value	PNEC	
Type	Water	
Concentration	0,046	mg/l
Type of value	PNEC	
Type	Marine	
Concentration	0,0046	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,46	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	0,2	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,262	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,026	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,025	mg/kg

3,6,9-triazaundecamethylenediamine

Type of value	PNEC	
Type	Freshwater	
Concentration	0,01	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,068	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,001	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	4,6	mg/l

Type of value	PNEC	
Type	Freshwater sediment	
Concentration	3,198	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,32	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	2,5	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	light yellow

Melting point

Remarks	not determined

Freezing point

Remarks	not determined

Boiling point or initial boiling point and boiling range

Value	>	100	°C

Flammability

evaluation	not determined

Upper and lower explosive limits

Lower explosion limit		1,2	%(V)
Upper explosion limit		13	%(V)

Flash point

Value	>	100	°C

Ignition temperature

Value		380	°C

Decomposition temperature

Remarks	not determined

pH value

Value	11	
Temperature	20	°C

Viscosity

dynamic

Value	30	mPa.s
Temperature	°C	

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	1,03	g/cm³

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	partially miscible

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	1.334,0804	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	
Remarks	The classification criteria are met.	

Acute oral toxicity (Components)

benzyl alcohol

Species	mouse	
LD50	1040	mg/kg

benzyl alcohol

Species	rat	
LD50	1620	mg/kg

3,6,9-triazaundecamethylenediamine

Species	rat	
LD50	1716	mg/kg
Method	OECD 401	

m-Phenylenebis(methylamine)

Species	mouse	
LD50	1180	mg/kg

m-Phenylenebis(methylamine)

Species	rat	
LD50	980	mg/kg

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Species	rat	
LD50	1030	mg/kg

3-aminomethyl-3,5,5-trimethylcyclohexylamine

ATE	1030	mg/kg

2,4,6-tris(dimethylaminomethyl)phenol

Species	rat	
LD50	2169	mg/kg
Remarks	The classification criteria are met.	

Fatty acids C18 unsat, reaction products with triethylenetetramine

Species	rat	
LD50	> 2000	mg/kg

polymeric polyamidoamine

Species	rat	
LD50	> 2000	mg/kg

Acute dermal toxicity

ATE	>	10.000	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	Based on available data, the classification criteria are not met.		

Acute dermal toxicity (Components)

benzyl alcohol

Species	rabbit		
LD50	>	2000	mg/kg

3,6,9-triazaundecamethylenediamine

Species	rabbit		
LD50		1260	mg/kg
Method	OECD 402		

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

Acute inhalational toxicity

ATE		16,2963	mg/l
Administration/Form	Vapors		
Method	calculated value (Regulation (EC) No. 1272/2008)		
ATE		2,15	mg/l
Administration/Form	Dust/Mist		
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	The classification criteria are 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			

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			

Skin corrosion/irritation

evaluation	corrosive
Remarks	The classification criteria are met.

Skin corrosion/irritation (Components)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

evaluation	strongly corrosive

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

Sensitization

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

Subacute, subchronic, chronic toxicity

Remarks: not determined

Mutagenicity

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

Reproductive toxicity

Remarks: Based on available data, the classification criteria are not 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	

3,6,9-triazaundecamethylenediamine
Species: guppy (Poecilia reticulata)

LC50	420		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	

3-aminomethyl-3,5,5-trimethylcyclohexylamine

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

2,4,6-tris(dimethylaminomethyl)phenol

Species	carp (Cyprinus carpio)		
LC50	175		mg/l
Duration of exposure	96	h	

Fatty acids C18 unsat, reaction products with triethylenetetramine

Species	zebra fish (Brachydanio rerio)		
EC50	0,31		mg/l
Duration of exposure	24	h	

polymeric polyamidoamine

EC50	0,5		mg/l
Duration of exposure	24	h	

Daphnia toxicity (Components)

benzyl alcohol

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

3,6,9-triazaundecamethylenediamine

Species	Daphnia magna		
EC50	24,1		mg/l
Duration of exposure	48	h	

m-Phenylenebis(methylamine)

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

3-aminomethyl-3,5,5-trimethylcyclohexylamine

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

2,4,6-tris(dimethylaminomethyl)phenol

Species	Daphnia magna		
EC50	718		mg/l
Duration of exposure	96	h	

Fatty acids C18 unsat, reaction products with triethylenetetramine

Species	Daphnia magna		
EC50	0,49		mg/l
Duration of exposure	48	h	

polymeric polyamidoamine

Species	Daphnia magna		
EC50	0,5		mg/l
Duration of exposure	48	h	

Algae toxicity (Components)

benzyl alcohol

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

3,6,9-triazaundecamethylenediamine

Species	Selenastrum capricornutum		
ErC50	6,8		mg/l
Duration of exposure	72	h	
Method	OECD 201		

3,6,9-triazaundecamethylenediamine

Species	Pseudokirchneriella subcapitata		
NOEC	0,5		mg/l
Duration of exposure	72	h	
Method	OECD 201		

m-Phenylenebis(methylamine)

Species	Pseudokirchneriella subcapitata		
EC50	33,3		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	

2,4,6-tris(dimethylaminomethyl)phenol

Species	Desmodesmus subspicatus		
EC50	84		mg/l
Duration of exposure	72	h	
Method	OECD 201		

2,4,6-tris(dimethylaminomethyl)phenol

Species	Desmodesmus subspicatus		
NOEC	6,25		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Fatty acids C18 unsat, reaction products with triethylenetetramine

Species	Pseudokirchneriella subcapitata		
EC50	0,505		mg/l
Duration of exposure	72	h	

polymeric polyamidoamine

Species	Algae		
EC50	0,55		mg/l
Duration of exposure	72	h	

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	

3-aminomethyl-3,5,5-trimethylcyclohexylamine

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

2,4,6-tris(dimethylaminomethyl)phenol

Species	activated sludge		
NOEC	2		mg/l
Duration of exposure	28	h	

3,6,9-triazaundecamethylenediamine

Species	activated sludge		
EC50	97,3		mg/l
Duration of exposure	2	h	

12.2. Persistence and degradability

General information

not determined

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

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 no vPvB substances.

12.6 Endocrine disrupting properties

General information

not determined

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that 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	AMINES, LIQUID, CORROSIVE, N.O.S. (m-Phenylenebis(methylamine), 3-aminomethyl-3,5,5-trimethylcyclohexylamine)	AMINES, LIQUID, CORROSIVE, N.O.S. (m-Phenylenebis(methylamine), 3-aminomethyl-3,5,5-trimethylcyclohexylamine)	AMINES, LIQUID, CORROSIVE, N.O.S. (m-Phenylenebis(methylamine), 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
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		
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

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 does not contain 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
Acute Tox. 4	H332	Calculation method
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 3	H412	Calculation method

Hazard statements listed in Chapter 2/3

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
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.
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.
H412	Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 2/3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
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

Skin Corr. 1B	Skin corrosion, Category 1B
Skin Corr. 1C	Skin corrosion, Category 1C
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

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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.