

# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830



## FIXPRIMER B

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

#### 1.1. Product identifier

Product name : FIXPRIMER B  
Registration number REACH : Not applicable (mixture)  
Product type REACH : Mixture

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

##### 1.2.1 Relevant identified uses

Epoxy resin hardener  
Wood: cleaning product

##### 1.2.2 Uses advised against

No uses advised against known

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier of the safety data sheet

TEC7\*  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 85 97 37  
☎ +32 14 85 97 38  
info@tec7.be  
\*TEC7 is a registered trademark of Novatech International N.V.

##### Manufacturer of the product

Novatech International N.V.  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 85 97 37  
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info@tec7.be

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Class	Category	Hazard statements
Skin Sens.	category 1	H317: May cause an allergic skin reaction.
Acute Tox.	category 4	H332: Harmful if inhaled.
Acute Tox.	category 4	H312: Harmful in contact with skin.
Acute Tox.	category 4	H302: Harmful if swallowed.
STOT RE	category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Skin Corr.	category 1B	H314: Causes severe skin burns and eye damage.
Aquatic Chronic	category 2	H411: Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements



Contains: benzyl alcohol; 3-aminomethyl-3,5,5-trimethylcyclohexylamine; benzyldimethylamine; 2-piperazin-1-ylethylamine; triethylenetetramine.

Signal word Danger

##### H-statements

H317 May cause an allergic skin reaction.  
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.  
H373 May cause damage to organs (respiratory tract) through prolonged or repeated exposure if inhaled.

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H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
<b>P-statements</b>	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280	Wear protective gloves, protective clothing and eye protection/face protection.
P260	Do not breathe vapours/mist.
P271	Use only outdoors or in a well-ventilated area.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.

## 2.3. Other hazards

Suspected of damaging fertility.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
benzyl alcohol 01-2119492630-38	100-51-6 202-859-9	40%<C<60%	Acute Tox. 4; H332 Acute Tox. 4; H302 Eye Irrit. 2; H319	(1)(2)(10)	Constituent
3-aminomethyl-3,5,5-trimethylcyclohexylamine 01-2119514687-32	2855-13-2 220-666-8	40%<C<60%	Skin Sens. 1; H317 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	(1)(10)	Constituent
benzyl dimethylamine 01-2119529232-48	103-83-3 203-149-1	2.5%<C<5%	Flam. Liq. 3; H226 Acute Tox. 3; H331 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	(1)(10)	Constituent
2-piperazin-1-ylethylamine 01-2119471486-30	140-31-8 205-411-0	1%<C<2.5%	Repr. 2; H361fd Acute Tox. 3; H311 Skin Sens. 1; H317 STOT RE 1; H372 Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	(1)(10)	Constituent
triethylenetetramine	112-24-3 203-950-6	1%<C<2.5%	Skin Sens. 1; H317 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	(1)(6)(10)	Constituent
Amines, coco alkyl	61788-46-3 262-977-1	1%<C<2.5%	Acute Tox. 4; H302 Asp. Tox. 1; H304 STOT RE 2; H373 Skin Corr. 1B; H314 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(9)(10)	Constituent

(1) For H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data

(9) M-factor, see heading 16

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

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

#### After inhalation:

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

#### After skin contact:

Wash immediately with lots of water (15 minutes)/shower. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

#### After eye contact:

Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist.

#### After ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Immediately consult a doctor/medical service.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

ON CONTINUOUS EXPOSURE/CONTACT: Coughing. Narcosis. Respiratory difficulties. Nausea. EXPOSURE TO HIGH CONCENTRATIONS: Corrosion of the upper respiratory tract.

##### After skin contact:

Caustic burns/corrosion of the skin.

##### After eye contact:

Corrosion of the eye tissue.

##### After ingestion:

Burns to the gastric/intestinal mucosa. Possible esophageal perforation. ON CONTINUOUS EXPOSURE/CONTACT: Gastrointestinal complaints.

#### 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### 5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher. Major fire: Class B foam (not alcohol-resistant).

#### 5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion. Major fire: Water; risk of puddle expansion.

### 5.2. Special hazards arising from the substance or mixture

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

### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it. Heat exposure: dilute toxic gas/vapour with water spray.

#### 5.3.2 Special protective equipment for fire-fighters:

Gloves. Face-shield. Corrosion-proof suit. Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

#### 6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves. Face-shield. Corrosion-proof suit.

##### Suitable protective clothing

See heading 8.2

### 6.2. Environmental precautions

Contain released product. Dam up the solid spill. Prevent soil and water pollution. Prevent spreading in sewers.

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## 6.3. Methods and material for containment and cleaning up

Solid spill: cover with absorbent material. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

## 6.4. Reference to other sections

See heading 13.

## SECTION 7: Handling and storage

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

### 7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Remove contaminated clothing immediately. Do not discharge the waste into the drain. Keep container tightly closed.

### 7.2. Conditions for safe storage, including any incompatibilities

#### 7.2.1 Safe storage requirements:

Keep container in a well-ventilated place. Keep locked up. Protect against frost. Unauthorized persons are not admitted. Meet the legal requirements.

#### 7.2.2 Keep away from:

Heat sources, oxidizing agents.

#### 7.2.3 Suitable packaging material:

No data available

#### 7.2.4 Non suitable packaging material:

No data available

### 7.3. Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure

##### a) Occupational exposure limit values

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

##### Germany

Benzylalkohol	Time-weighted average exposure limit 8 h (TRGS 900)	5 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	22 mg/m <sup>3</sup>

##### b) National biological limit values

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

#### 8.1.2 Sampling methods

Product name	Test	Number
Benzyl Alcohol	OSHA	2009
Butyl Acrylate	OSHA	2011
Triethylene Tetramine	OSHA	60
triethylenetetramine	NIOSH	2540-1
triethylenetetramine	NIOSH	2540-2
triethylenetetramine	NIOSH	2540-teta

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

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

#### 8.1.4 DNEL/PNEC values

##### DNEL/DMEL - Workers

##### benzyl alcohol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	22 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	110 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	8 mg/kg bw/day	
	Acute systemic effects dermal	40 mg/kg bw/day	

##### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	0.073 mg/m <sup>3</sup>	
	Acute local effects inhalation	0.073 mg/m <sup>3</sup>	

##### benzyl dimethylamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	14.6 mg/m <sup>3</sup>	
	Long-term local effects inhalation	1 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	2.3 mg/kg bw/day	

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## 2-piperazin-1-ylethylamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	10.6 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	10.6 mg/m <sup>3</sup>	
	Long-term local effects inhalation	15 µg/m <sup>3</sup>	
	Acute local effects inhalation	80 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	3.33 mg/kg bw/day	

## triethylenetetramine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	5380 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	0.57 mg/kg bw/day	
	Long-term local effects dermal	0.058 mg/cm <sup>2</sup>	

## DNEL/DMEL - General population

### benzyl alcohol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	5.4 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	27 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	4 mg/kg bw/day	
	Acute systemic effects dermal	20 mg/kg bw/day	
	Long-term systemic effects oral	4 mg/kg bw/day	
	Acute systemic effects oral	20 mg/kg bw/day	

## 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects oral	0.526 mg/kg bw/day	

## benzyl dimethylamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	43.75 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	1.25 mg/kg bw/day	
	Long-term systemic effects oral	1.25 mg/kg bw/day	

## triethylenetetramine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.29 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	1600 mg/m <sup>3</sup>	
	Acute systemic effects dermal	8 mg/kg bw/day	
	Long-term local effects dermal	0.43 mg/cm <sup>2</sup>	
	Acute local effects dermal	1 mg/cm <sup>2</sup>	
	Acute local effects dermal	0.25 mg/kg bw/day	
	Long-term systemic effects oral	0.41 mg/kg bw/day	
	Acute systemic effects oral	20 mg/kg bw/day	

## PNEC

### benzyl alcohol

Compartments	Value	Remark
Fresh water	1 mg/l	
Marine water	0.1 mg/l	
Aqua (intermittent releases)	2.3 mg/l	
STP	39 mg/l	
Fresh water sediment	5.27 mg/kg sediment dw	
Marine water sediment	0.527 mg/kg sediment dw	
Soil	0.456 mg/kg soil dw	

## 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Compartments	Value	Remark
Fresh water	0.06 mg/l	
Marine water	0.006 mg/l	
Aqua (intermittent releases)	0.23 mg/l	
STP	3.18 mg/l	
Fresh water sediment	5.784 mg/kg sediment dw	
Marine water sediment	0.578 mg/kg sediment dw	
Soil	1.121 mg/kg soil dw	

## benzyl dimethylamine

Compartments	Value	Remark
Fresh water	0.005 mg/l	
Fresh water (intermittent releases)	0.013 mg/l	
STP	534 mg/l	
Fresh water sediment	0.071 mg/kg sediment dw	
Marine water sediment	0.007 mg/kg sediment dw	
Soil	0.011 mg/kg soil dw	

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## 2-piperazin-1-ylethylamine

Compartments	Value	Remark
Fresh water	0.058 mg/l	
Aqua (intermittent releases)	0.58 mg/l	
Marine water	0.006 mg/l	
STP	250 mg/l	
Fresh water sediment	215 mg/kg sediment dw	
Marine water sediment	21.5 mg/kg sediment dw	
Soil	1 mg/kg soil dw	

## triethylenetetramine

Compartments	Value	Remark
Fresh water	190 µg/l	
Fresh water sediment	95.9 mg/kg	
Marine water	38 µg/l	
Aqua (intermittent releases)	200 µg/l	
Marine water sediment	19.2 mg/kg	
Soil	19.1 mg/kg	
STP	4.25 mg/l	

### 8.1.5 Control banding

If applicable and available it will be listed below.

## 8.2. Exposure controls

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

### 8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Do not eat, drink or smoke during work.

#### a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

#### b) Hand protection:

Gloves.

- materials (good resistance)

Nitrile rubber.

#### c) Eye protection:

Face shield.

#### d) Skin protection:

Corrosion-proof clothing.

### 8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical form	Liquid
Odour	Amine-like odour
Odour threshold	No data available
Colour	Yellow
Particle size	Not applicable (liquid)
Explosion limits	No data available
Flammability	Non-flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	67 mPa.s ; 20 °C
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	> 200 °C
Evaporation rate	No data available
Relative vapour density	No data available
Vapour pressure	No data available
Solubility	Water ; insoluble
Relative density	1.0 ; 20 °C
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Flash point	> 100 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

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## 9.2. Other information

Absolute density 1000 mg/cm<sup>3</sup> ; 20 °C

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

#### Precautionary measures

Keep away from naked flames/heat.

### 10.5. Incompatible materials

Oxidizing agents.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### 11.1.1 Test results

#### Acute toxicity

##### FIXPRIMER B

No (test) data on the mixture available

Classification is based on the relevant ingredients

##### benzyl alcohol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		1620 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50		> 2000 mg/kg		Rabbit	Inconclusive, insufficient data	
Inhalation (aerosol)	LC50	OECD 403	> 4.178 mg/l air	4 h	Rat (male/female)	Experimental value	

##### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	1030 mg/kg		Rat (male)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male/female)	Experimental value	
Dermal			category 4			Annex VI	
Inhalation (aerosol)	LC50	OECD 403	> 5.01 mg/l	4 h	Rat (male/female)	Experimental value	

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

##### benzyl dimethylamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LC50		579 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50		1477 mg/kg	24 h	Rabbit (male)	Experimental value	
Inhalation (vapours)	LC50		2.093 mg/l	4 h	Rat (male/female)	Experimental value	

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## 2-piperazin-1-ylethylamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		> 1000 mg/kg bw		Rat (female)	Experimental value	
Oral	LD50		2097 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50		866 mg/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation (saturated vapour)				8 h	Rat (female)	Experimental value	Not classified

## triethylenetetramine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		1716.2 mg/kg bw		Rat (male/female)	Literature study	
Dermal	LD50		1465.4 mg/kg bw		Rabbit (male/female)	Literature study	

## Amines, coco alkyl

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	1300 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw		Rat (male/female)	Experimental value	
Inhalation	LC50		> 0.0099 mg/l	1 h	Rat (male)	Experimental value	

### **Conclusion**

Harmful if swallowed.  
Harmful in contact with skin.  
Harmful if inhaled.

### **Corrosion/irritation**

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No (test) data on the mixture available  
Classification is based on the relevant ingredients

#### benzyl alcohol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405	24 h	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Slightly irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

#### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	OECD 405	24 h	24 hours	Rabbit	Experimental value	
Skin	Corrosive	Draize Test	24 h	24; 72 hours	Rabbit	Experimental value	

#### benzyl dimethylamine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	Other	24 h	8 days	Rabbit	Experimental value	
Skin	Corrosive	OECD 404	4 h	24 hours	Rabbit	Experimental value	

#### 2-piperazin-1-ylethylamine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage			1; 24; 48; 72 hrs; 7 days	Rabbit	Experimental value	Single exposure
Skin	Corrosive to the skin		20 minutes	24 hours	Rabbit	Experimental value	

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## triethylenetetramine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	OECD 405			Rabbit	Literature study	
Skin	Corrosive	OECD 404			Rabbit	Literature study	

## Amines, coco alkyl

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Skin	Corrosive	OECD 404	1 h	1; 24; 48; 72 hrs; 7; 14; 21 days	Rabbit	Experimental value	
Inhalation	Irritating	Other				Experimental value	

### Conclusion

Causes severe skin burns and eye damage.

Not classified as irritating to the respiratory system

### Respiratory or skin sensitisation

#### FIXPRIMER B

No (test)data on the mixture available

Classification is based on the relevant ingredients

#### benzyl alcohol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig	Weight of evidence	002

#### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406		24; 48; 72 hours	Guinea pig (male)	Experimental value	

#### benzyl dimethylamine

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

#### 2-piperazin-1-ylethylamine

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	Equivalent to OECD 406	28 day(s)	48 hours	Guinea pig (male/female)	Experimental value	

#### triethylenetetramine

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406			Guinea pig	Literature study	

#### Amines, coco alkyl

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		24; 48; 72 hours	Guinea pig (female)	Experimental value	

### Conclusion

May cause an allergic skin reaction.

Not classified as sensitizing for inhalation

### Specific target organ toxicity

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No (test)data on the mixture available

Classification is based on the relevant ingredients

#### benzyl alcohol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 451	400 mg/kg bw/day		No effect	103 weeks (5 days/week)	Rat (male/female)	Experimental value
Dermal								Data waiving
Inhalation (aerosol)	NOAEC	OECD 412	1072 mg/m <sup>3</sup>		No effect	4 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

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## 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	LOAEL	OECD 408	160 mg/kg bw/day	Kidney	Histopathology	13 weeks (daily)	Rat (male)	Experimental value
Dermal								Data waiving
Inhalation (mixture of vapour and aerosol)	LOEC	Subacute toxicity test	18 mg/m <sup>3</sup> air	Nose	Local effects		Rat (male)	Experimental value

## benzyl dimethylamine

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 407	150 mg/kg bw/day		No effect	28 days (1x/day)	Rat (male/female)	Experimental value

## 2-piperazin-1-ylethylamine

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	OECD 422	2000 mg/l		No effect	≥ 28 day(s)	Rat (male/female)	Experimental value
Skin	NOAEL	OECD 410	≥ 1000 mg/kg bw/day		No effect	29 day(s)	Rat (male/female)	Experimental value
Inhalation (aerosol)	NOEC	OECD 413	0.2 mg/m <sup>3</sup> air	Respiratory tract	Irritation of the respiratory tract	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

## Amines, coco alkyl

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral			STOT RE cat.2					Annex VI

## Conclusion

May cause damage to organs through prolonged or repeated exposure.

## Mutagenicity (in vitro)

### FIXPRIMER B

No (test) data on the mixture available

### benzyl alcohol

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value
Limited positive test result	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value

### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value

### benzyl dimethylamine

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster lung fibroblasts (V79)		Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value

### Amines, coco alkyl

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

## Mutagenicity (in vivo)

### FIXPRIMER B

No (test) data on the mixture available

Judgement is based on the relevant ingredients

### benzyl alcohol

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

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## 3-aminomethyl-3,5,5-trimethylcyclohexylamine

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

## benzyl dimethylamine

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	Micronucleus test		Mouse (male/female)	Bone marrow	Experimental value

### **Conclusion**

Not classified for mutagenic or genotoxic toxicity

### **Carcinogenicity**

#### FIXPRIMER B

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### benzyl alcohol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral	NOAEL	Equivalent to OECD 451	> 400 mg/kg bw/day	103 weeks (5 days/week)	Rat (male/female)	No carcinogenic effect		Experimental value

#### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Unknown								Data waiving

#### benzyl dimethylamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (diet)	Dose level	Carcinogenic toxicity study	0.2 %	100 day(s)	Rabbit (male/female)	No carcinogenic effect		Inconclusive, insufficient data

### **Conclusion**

Not classified for carcinogenicity

### **Reproductive toxicity**

#### FIXPRIMER B

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### benzyl alcohol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	LOAEL	Chernoff Kavlock assay.	750 mg/kg bw/day	8 days (gestation, daily)	Mouse	Reduced foetal bodyweights	Foetus	Experimental value
Maternal toxicity	LOAEL		750 mg/kg bw/day	8 days (gestation, daily)	Mouse	Mortality; body weight; food consumption		Experimental value
Effects on fertility	NOAEL		1072 mg/m <sup>3</sup> air	4 weeks (6h/day, 5 days/week)	Rat (male/female)	No effect		Experimental value

#### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	> 250 mg/kg bw/day	2 weeks (daily)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Oral (stomach tube))	NOEL	OECD 414	50 mg/kg bw/day	2 weeks (daily)	Rat	No effect	General	Experimental value
Effects on fertility								Data waiving

#### benzyl dimethylamine

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOEL	OECD 414	150 mg/kg bw/day	14 days (1x/day)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	75 mg/kg bw/day	14 days (1x/day)	Rat	No effect		Experimental value
Effects on fertility								Data waiving

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## 2-piperazin-1-ylethylamine

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	75 mg/kg bw/day	13 days (gestation, daily)	Rabbit (female)	No effect		Experimental value
Developmental toxicity (Inhalation)	Dose level	OECD 414	150 mg/kg bw/day	13 days (gestation, daily)	Rabbit (female)	Fetotoxicity		Experimental value
Effects on fertility (Oral (drinking water))	NOAEC	OECD 422	8000 mg/l	≥ 28 week(s)	Rat (male/female)	No effect		Experimental value
Effects on lactation						May cause harm to breast-fed children.		Literature

### Toxicity other effects

#### FIXPRIMER B

No (test)data on the mixture available

### Chronic effects from short and long-term exposure

#### FIXPRIMER B

Skin rash/inflammation.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### FIXPRIMER B

No (test)data on the mixture available

Classification is based on the relevant ingredients

#### benzyl alcohol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA 600/3 - 76/097	460 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	OECD 202	230 mg/l	48 h	Daphnia magna		Fresh water	Experimental value
Toxicity algae and other aquatic plants	NOEC	OECD 201	310 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value
	EC50	OECD 201	770 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 211	51 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value
Toxicity aquatic micro-organisms	IC50	ISO 8192	2100 mg/l	49 h	Activated sludge	Static system	Fresh water	Experimental value

#### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EU Method C.1	110 mg/l	96 h	Leuciscus idus	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	23 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	EU Method C.3	37 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 202	3 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EC10		1120 mg/l	18 h	Pseudomonas putida	Static system	Fresh water	Experimental value; Nominal concentration

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# FIXPRIMER B

## benzyl dimethylamine

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	37.8 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	EU Method C.2	> 100 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	EU Method C.3	1.34 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	EC10	EU Method C.3	0.24 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 202	0.789 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	EC20	OECD 209	575 mg/l	30 minutes	Activated sludge	Static system	Fresh water	Experimental value; Nominal concentration

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

## 2-piperazin-1-ylethylamine

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		2190 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	OECD 202	58 mg/l	48 h	Daphnia magna	Static system		Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	> 1000 mg/l	72 h	Pseudokirchneriella subcapitata		Fresh water	Experimental value; GLP
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea								Data waiving

## triethylenetetramine

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA OTS 797.1400	330 mg/l	96 h	Pisces	Static system		Experimental value
Acute toxicity crustacea	EC50	EU Method C.2	31.1 mg/l	48 h	Daphnia magna	Static system		Experimental value
Toxicity algae and other aquatic plants	ErC50	OECD 201	20 mg/l	72 h	Algae	Semi-static system		Experimental value
Long-term toxicity aquatic crustacea	EC10	OECD 202	1.9 mg/l	21 day(s)	Daphnia magna	Semi-static system		Experimental value

## Amines, coco alkyl

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	0.24 mg/l	96 h	Brachydanio rerio	Static system		Experimental value
	LC50	OECD 203	0.16 mg/l	96 h	Oncorhynchus mykiss	Semi-static system		Experimental value
Acute toxicity crustacea	EC50	OECD 202	0.11 mg/l - 0.15 mg/l	48 h	Daphnia magna	Static system		Experimental value
Toxicity algae and other aquatic plants	EbC50	OECD 201	0.08 mg/l	72 h	Scenedesmus subspicatus	Static system		Experimental value
	ErC50	OECD 201	0.16 mg/l	72 h	Scenedesmus subspicatus	Static system		Experimental value

## Conclusion

Toxic to aquatic life with long lasting effects.

## 12.2. Persistence and degradability

### benzyl alcohol

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301A: DOC Die-Away Test	95 % - 97 %	21 day(s)	Experimental value

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## 3-aminomethyl-3,5,5-trimethylcyclohexylamine

### Biodegradation water

Method	Value	Duration	Value determination
EU Method C.4	8 %; GLP	28 day(s)	Experimental value

### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.90	4.5 h	500000 /cm <sup>3</sup>	Calculated value

## benzyl dimethylamine

### Biodegradation water

Method	Value	Duration	Value determination
OECD 301C: Modified MITI Test (I)	0 % - 2 %; Oxygen consumption	28 day(s)	Experimental value

### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	1.564 h	1500000 /cm <sup>3</sup>	Calculated value

### Biodegradation soil

Method	Value	Duration	Value determination
			Data waiving

## 2-piperazin-1-ylethylamine

### Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	0 %; GLP	28 day(s)	Experimental value

## triethylenetetramine

### Biodegradation water

Method	Value	Duration	Value determination
OECD 302A: Inherent Biodegradability: Modified SCAS Test	20 %	84 day(s)	Experimental value

## Amines, coco alkyl

### Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	60 %; Carbon dioxide	28 day(s)	Experimental value

## Conclusion

Contains non readily biodegradable component(s)

## 12.3. Bioaccumulative potential

### FIXPRIMER B

#### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

## benzyl alcohol

#### Log Kow

Method	Remark	Value	Temperature	Value determination
		1.05	20 °C	Experimental value

## 3-aminomethyl-3,5,5-trimethylcyclohexylamine

### BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFWIN	3.16			QSAR

#### Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		0.99	23 °C	Experimental value

## benzyl dimethylamine

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	2.1 - 22	6 week(s)	Cyprinus carpio	Experimental value

#### Log Kow

Method	Remark	Value	Temperature	Value determination
		1.98		Experimental value

## 2-piperazin-1-ylethylamine

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	0.3 - 6.3	6 week(s)	Cyprinus carpio	Read-across

#### Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		-1.48	20 °C	Experimental value

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triethylenetetramine

## Log Kow

Method	Remark	Value	Temperature	Value determination
		-2.65		

## Conclusion

Contains bioaccumulative component(s)

## 12.4. Mobility in soil

benzyl alcohol

### Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.0879 Pa.m <sup>3</sup> /mol		25 °C		Calculated value

3-aminomethyl-3,5,5-trimethylcyclohexylamine

### (log) Koc

Parameter	Method	Value	Value determination
log Koc		2.97	QSAR

benzyl dimethylamine

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	1.955 - 2.457	Calculated value

## Conclusion

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

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

## 12.5. Results of PBT and vPvB assessment

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

## 12.6. Other adverse effects

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### Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

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

### Ozone-depleting potential (ODP)

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

### Groundwater

Groundwater pollutant

## SECTION 13: Disposal considerations

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

### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

##### European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

20 01 27\* (separately collected fractions (except 15 01): paint, inks, adhesives and resins containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Dispose of small quantities of cured product as household waste. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

#### 13.1.3 Packaging/Container

##### European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

## SECTION 14: Transport information

### Road (ADR)

#### 14.1. UN number

UN number	2735
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#### 14.2. UN proper shipping name

Proper shipping name	Polyamines, liquid, corrosive, n.o.s. (2-piperazin-1-ylethylamine)
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#### 14.3. Transport hazard class(es)

Hazard identification number	80
Class	8

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Classification code	C7
14.4. Packing group	
Packing group	II
Labels	8
14.5. Environmental hazards	
Environmentally hazardous substance mark	yes
14.6. Special precautions for user	
Special provisions	274
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Rail (RID)

14.1. UN number	
UN number	2735
14.2. UN proper shipping name	
Proper shipping name	Polyamines, liquid, corrosive, n.o.s. (2-piperazin-1-ylethylamine)
14.3. Transport hazard class(es)	
Hazard identification number	80
Class	8
Classification code	C7
14.4. Packing group	
Packing group	II
Labels	8
14.5. Environmental hazards	
Environmentally hazardous substance mark	yes
14.6. Special precautions for user	
Special provisions	274
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Inland waterways (ADN)

14.1. UN number	
UN number	2735
14.2. UN proper shipping name	
Proper shipping name	Polyamines, liquid, corrosive, n.o.s. (2-piperazin-1-ylethylamine)
14.3. Transport hazard class(es)	
Class	8
Classification code	C7
14.4. Packing group	
Packing group	II
Labels	8
14.5. Environmental hazards	
Environmentally hazardous substance mark	yes
14.6. Special precautions for user	
Special provisions	274
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Sea (IMDG/IMSBC)

14.1. UN number	
UN number	2735
14.2. UN proper shipping name	
Proper shipping name	polyamines, liquid, corrosive, n.o.s. (benzyl dimethylamine; 2-piperazin-1-ylethylamine)
14.3. Transport hazard class(es)	
Class	8
14.4. Packing group	
Packing group	II
Labels	8
14.5. Environmental hazards	
Marine pollutant	P
Environmentally hazardous substance mark	yes
14.6. Special precautions for user	
Special provisions	274
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
Annex II of MARPOL 73/78	Not applicable, based on available data

## Air (ICAO-TI/IATA-DGR)

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# FIXPRIMER B

14.1. UN number	UN number	2735
14.2. UN proper shipping name	Proper shipping name	Polyamines, liquid, corrosive, n.o.s. (2-piperazin-1-ylethylamine)
14.3. Transport hazard class(es)	Class	8
14.4. Packing group	Packing group	II
	Labels	8
14.5. Environmental hazards	Environmentally hazardous substance mark	yes
14.6. Special precautions for user	Special provisions	A3
	Special provisions	A803
	Limited quantities: maximum net quantity per packaging	0.5 L

## SECTION 15: Regulatory information

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

#### European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
< 10 %	

REACH Annex XVII - Restriction

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

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
<ul style="list-style-type: none"> <li>· benzyl alcohol</li> <li>· 3-aminomethyl-3,5,5-trimethylcyclohexylamine</li> <li>· benzyldimethylamine</li> <li>· 2-piperazin-1-ylethylamine</li> <li>· triethylenetetramine</li> <li>· Amines, coco alkyl</li> </ul>	<p>Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008:</p> <p>(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;</p> <p>(b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10;</p> <p>(c) hazard class 4.1;</p> <p>(d) hazard class 5.1.</p>	<ol style="list-style-type: none"> <li>1. Shall not be used in:               <ul style="list-style-type: none"> <li>— ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,</li> <li>— tricks and jokes,</li> <li>— games for one or more participants, or any article intended to be used as such, even with ornamental aspects,</li> </ul> </li> <li>2. Articles not complying with paragraph 1 shall not be placed on the market.</li> <li>3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:               <ul style="list-style-type: none"> <li>— can be used as fuel in decorative oil lamps for supply to the general public, and,</li> <li>— present an aspiration hazard and are labelled with R65 or H304,</li> </ul> </li> <li>4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).</li> <li>5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:               <ol style="list-style-type: none"> <li>a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage";</li> <li>b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage";</li> <li>c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.</li> </ol> </li> <li>6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.</li> <li>7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'</li> </ol>
<ul style="list-style-type: none"> <li>· benzyldimethylamine</li> </ul>	<p>Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.</p>	<ol style="list-style-type: none"> <li>1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:               <ul style="list-style-type: none"> <li>— metallic glitter intended mainly for decoration,</li> <li>— artificial snow and frost,</li> <li>— "whoopee" cushions,</li> <li>— silly string aerosols,</li> <li>— imitation excrement,</li> <li>— horns for parties,</li> <li>— decorative flakes and foams,</li> <li>— artificial cobwebs,</li> <li>— stink bombs.</li> </ul> </li> </ol>

Reason for revision: 2; 3

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2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:  
"For professional users only".  
3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.  
4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

## National legislation Belgium

### FIXPRIMER B

No data available

## National legislation The Netherlands

### FIXPRIMER B

Waterbezwaarlijkheid	A (3)
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## National legislation France

### FIXPRIMER B

No data available

## National legislation Germany

### FIXPRIMER B

WGK	2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4) and Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) of 18 April 2017
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### benzyl alcohol

TA-Luft	5.2.5
TRGS900 - Risiko der Fruchtschädigung	Benzylalkohol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe	Benzylalkohol; H; Hautresorptiv

### 3-aminomethyl-3,5,5-trimethylcyclohexylamine

TA-Luft	5.2.5; I
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### benzyl dimethylamine

TA-Luft	5.2.5; I
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## National legislation United Kingdom

### FIXPRIMER B

No data available

## Other relevant data

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No data available

## 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

## SECTION 16: Other information

### Full text of any H-statements referred to under heading 3:

H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H361fd Suspected of damaging fertility if swallowed. Suspected of damaging the unborn child if swallowed.  
H372 Causes damage to organs (respiratory tract) through prolonged or repeated exposure if inhaled.  
H373 May cause damage to organs (gastrointestinal tract, immune system, liver) through prolonged or repeated exposure.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

(\*) INTERNAL CLASSIFICATION BY BIG  
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)  
DMEL Derived Minimal Effect Level

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DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

## M-factor

Amines, coco alkyl	10	Acute	CLP Annex VI (ATP 5)
Amines, coco alkyl	10	Chronic	CLP Annex VI (ATP 5)

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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