

# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

## NAE-1600 B

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

#### 1.1. Product identifier

Product name : NAE-1600 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

Adhesive

##### 1.2.2 Uses advised against

No uses advised against known

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

##### Supplier of the safety data sheet

Novatio\*  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 25 76 40  
☎ +32 14 22 02 66  
info@novatio.be  
\*NOVATIO 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  
☎ +32 14 85 97 38  
info@novatech.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	H312: Harmful in contact with skin.
Skin Corr.	category 1B	H314: Causes severe skin burns and eye damage.
Eye Dam.	category 1	H318: Causes serious eye damage.
STOT SE	category 3	H335: May cause respiratory irritation.

#### 2.2. Label elements



Contains: p-toluenesulphonic acid (containing a maximum of 5% H<sub>2</sub>SO<sub>4</sub>); N,N'-bis(3-aminopropyl)ethylenediamine; 3,3'-oxybis(ethyleneoxy)bis(propylamine).

**Signal word** Danger

##### H-statements

H317 May cause an allergic skin reaction.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H335 May cause respiratory irritation.

##### P-statements

P280 Wear protective gloves, protective clothing and eye protection/face protection.  
P260 Do not breathe dust.

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P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

## 2.3. Other hazards

No other hazards known

## 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	M-factors and ATE
p-toluenesulphonic acid (containing a maximum of 5% H <sub>2</sub> SO <sub>4</sub> ) 01-2119538811-39	104-15-4 203-180-0	C<25%	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT SE 3; H335: C≥20%, (CLP Annex VI (ATP 0))	(1)(10)	Constituent	
N,N'-bis(3-aminopropyl)ethylenediamine 01-2119976331-37	10563-26-5 234-147-9	C<35%	Acute Tox. 3; H311 Skin Sens. 1A; H317 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318	(1)(10)	Constituent	
3,3'-oxybis(ethyleneoxy)bis(propylamine) 01-2119963377-26	4246-51-9 224-207-2	C<25%	Skin Sens. 1; H317 Skin Corr. 1B; H314 Eye Dam. 1; H318	(1)(10)	Constituent	
calcium carbonate	471-34-1 207-439-9	C<45%		(2)	Constituent	

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

#### After inhalation:

Remove victim into fresh air. Immediately consult a doctor/medical service.

#### After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately for 30 minutes with (lukewarm) water. Cut clothing; never remove burnt clothing from the wound. Do not give any pain medication. Consult a doctor/medical service.

#### After eye contact:

Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor/medical service.

#### After ingestion:

Rinse mouth with water. Immediately consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

Irritation of the respiratory tract. Irritation of the nasal mucous membranes. 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.

#### 4.2.2 Delayed symptoms

No effects known.

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

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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, sulphur oxides, 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.

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

Gloves (EN 374). Face shield (EN 166). Corrosion-proof suit (EN 14605). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

## 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 section 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Face shield (EN 166). Corrosion-proof suit (EN 14605).

#### Suitable protective clothing

See section 8.2

### 6.2. Environmental precautions

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

### 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 section 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. Keep container tightly closed. Do not discharge the waste into the drain.

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

#### 7.2.1 Safe storage requirements:

Meet the legal requirements.

#### 7.2.2 Keep away from:

Heat sources.

#### 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.

Belgium

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Calcium (carbonate de)	Time-weighted average exposure limit 8 h	10 mg/m <sup>3</sup>
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## France

Calcium (carbonate de)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m <sup>3</sup>
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## UK

Calcium carbonate inhalable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m <sup>3</sup>
Calcium carbonate respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 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
Calciumdicarbonate	NIOSH	7020
p-Toluenesulfonic acid	NIOSH	5043

### 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 Threshold values

#### DNEL/DMEL - Workers

p-toluenesulphonic acid (containing a maximum of 5% H<sub>2</sub>SO<sub>4</sub>)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	53.6 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	7.6 mg/kg bw/day	

N,N'-bis(3-aminopropyl)ethylenediamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1.234 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	0.35 mg/kg bw/day	

3,3'-oxybis(ethyleneoxy)bis(propylamine)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	59 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	176 mg/m <sup>3</sup>	
	Long-term local effects inhalation	1 mg/m <sup>3</sup>	
	Acute local effects inhalation	13 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	8.3 mg/kg bw/day	

calcium carbonate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	6.36 mg/m <sup>3</sup>	

#### DNEL/DMEL - General population

p-toluenesulphonic acid (containing a maximum of 5% H<sub>2</sub>SO<sub>4</sub>)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	8.7 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	2.5 mg/kg bw/day	
	Long-term systemic effects oral	2.5 mg/kg bw/day	

N,N'-bis(3-aminopropyl)ethylenediamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.217 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	0.125 mg/kg bw/day	
	Long-term systemic effects oral	0.125 mg/kg bw/day	

3,3'-oxybis(ethyleneoxy)bis(propylamine)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	17 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	52 mg/m <sup>3</sup>	
	Long-term local effects inhalation	0.5 mg/m <sup>3</sup>	
	Acute local effects inhalation	6.5 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	5 mg/kg bw/day	
	Long-term systemic effects oral	5 mg/kg bw/day	

calcium carbonate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	1.06 mg/m <sup>3</sup>	
	Long-term systemic effects oral	6.1 mg/kg bw/day	
	Acute systemic effects oral	6.1 mg/kg bw/day	

## PNEC

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p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

Compartments	Value	Remark
Fresh water	0.073 mg/l	
Marine water	0.007 mg/l	
Fresh water (intermittent releases)	0.73 mg/l	
STP	58 mg/l	
Fresh water sediment	0.058 mg/kg sediment dw	
Marine water sediment	0.006 mg/kg sediment dw	
Soil	0.016 mg/kg soil dw	

N,N'-bis(3-aminopropyl)ethylenediamine

Compartments	Value	Remark
Fresh water	0.144 mg/l	
Fresh water (intermittent releases)	0.43 mg/l	
Marine water	0.014 mg/l	
STP	3.4 mg/l	
Fresh water sediment	45.3 mg/kg sediment dw	
Marine water sediment	4.53 mg/kg sediment dw	
Soil	8.96 mg/kg soil dw	

3,3'-oxybis(ethyleneoxy)bis(propylamine)

Compartments	Value	Remark
Fresh water	0.22 mg/l	
Marine water	0.022 mg/l	
Fresh water (intermittent releases)	2.2 mg/l	
STP	500 mg/l	
Fresh water sediment	1.1 mg/kg sediment dw	
Marine water sediment	0.11 mg/kg sediment dw	
Soil	0.091 mg/kg soil dw	

calcium carbonate

Compartments	Value	Remark
STP	100 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. 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:

High gas/vapour concentration: full face mask with filter type B.

#### b) Hand protection:

Protective gloves against chemicals (EN 374).

#### c) Eye protection:

Protective goggles (EN 166).

#### d) Skin protection:

Corrosion-proof clothing (EN 14605).

### 8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

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

Physical form	Paste
Odour	Characteristic odour
Odour threshold	No data available in the literature
Colour	White
Particle size	No data available in the literature
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available in the literature
Kinematic viscosity	No data available in the literature
Melting point	No data available in the literature
Boiling point	No data available in the literature
Relative vapour density	No data available in the literature
Vapour pressure	No data available in the literature
Solubility	Water ; insoluble
Relative density	1.45 ; 20 °C

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Absolute density	1450 kg/m <sup>3</sup> ; 20 °C
Decomposition temperature	No data available in the literature
Auto-ignition temperature	No data available in the literature
Flash point	No data available in the literature
pH	Not applicable (non-soluble in water)

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Heating increases the fire hazard.

### 10.2. Chemical stability

No data available.

### 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

No data available.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

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

#### 11.1.1 Test results

#### Acute toxicity

##### NAE-1600 B

No (test) data on the mixture available

Classification is based on the relevant ingredients

p-toluenesulphonic acid (containing a maximum of 5% H<sub>2</sub>SO<sub>4</sub>)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		≥ 1104 mg/kg bw		Rat (male)	Read-across	
Dermal	LD50		> 2000 mg/kg bw	24 h	Rabbit (male / female)	Read-across	
Inhalation (vapours)	LC50		≥ 50 mg/l	8 h	Rat (male / female)	Read-across	

##### N,N'-bis(3-aminopropyl)ethylenediamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	BASF test	1140 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	OECD 402	> 200 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation						Data waiving	

##### 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	3160 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 2150 mg/kg	24 h	Rat (male / female)	Experimental value	
Inhalation						Data waiving	

##### calcium carbonate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 420	> 2000 mg/kg		Rat (female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation (aerosol)	LC50	OECD 403	> 3 mg/l air	4 h	Rat (male / female)	Experimental value	

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## Conclusion

Harmful in contact with skin.  
Not classified as acute toxic if inhaled  
Not classified as acute toxic if swallowed

## Corrosion/irritation

### NAE-1600 B

No (test)data on the mixture available  
Classification is based on the relevant ingredients  
p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage		5 seconds - 30 seconds		Rabbit	Read-across	
Eye	category 2					Annex VI	
Skin	Corrosive	OECD 404	4 h	24; 72 hours	Rabbit	Experimental value	
Skin	Irritating; category 2					Annex VI	
Inhalation	Irritating; STOT SE cat.3					Annex VI	

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

### N,N'-bis(3-aminopropyl)ethylenediamine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	Equivalent to OECD 405		24; 72 hours	Rabbit	Experimental value	Single treatment without rinsing
Skin	Corrosive	Equivalent to OECD 404	20 h	24; 48; 72 hours	Rabbit	Experimental value	

### 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage; category 1					Data waiving	
Skin	Corrosive	BASF test	1 h	24; 48; 72 hours	Rabbit	Experimental value	

Data waiving for eye corrosion based on corrosive properties

### calcium carbonate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Not applicable (in vitro test)	Not irritating	OECD 439	15 minutes		Reconstructed human epidermis	Experimental value	

## Conclusion

Causes severe skin burns and eye damage.  
May cause respiratory irritation.

## Respiratory or skin sensitisation

### NAE-1600 B

No (test)data on the mixture available  
Classification is based on the relevant ingredients  
p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	EU Method B.6			Guinea pig (female)	Experimental value	

### N,N'-bis(3-aminopropyl)ethylenediamine

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406			Guinea pig (female)	Experimental value	

### 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing					QSAR	

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## calcium carbonate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 429			Mouse (female)	Experimental value	

### Conclusion

May cause an allergic skin reaction.  
Not classified as sensitizing for inhalation

### Specific target organ toxicity

#### NAE-1600 B

No (test)data on the mixture available  
Judgement is based on the relevant ingredients  
p-toluenesulphonic acid (containing a maximum of 5% H<sub>2</sub>SO<sub>4</sub>)

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	OECD 407	≥ 500 mg/kg bw/day		No effect	4 weeks (daily)	Rat (male / female)	Read-across
Dermal								Data waiving
Inhalation								Data waiving

## N,N'-bis(3-aminopropyl)ethylenediamine

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	30 mg/kg bw/day		No effect	29 day(s) - 53 day(s)	Rat (male / female)	Experimental value

## 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL systemic effects	OECD 422	600 mg/kg bw/day		No effect	59 day(s) - 62 day(s)	Rat (male / female)	Experimental value
Oral (stomach tube)	NOAEL local effects	OECD 422	100 mg/kg bw/day		Histopathology	62 day(s)	Rat (female)	Experimental value
Oral (stomach tube)	NOAEL local effects	OECD 422	< 100 mg/kg bw/day		Histopathology	59 day(s)	Rat (male)	Experimental value

## calcium carbonate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	1000 mg/kg bw/day		No effect	48 day(s)	Rat (male / female)	Experimental value
Inhalation (dust)	NOAEC local effects	OECD 413	≥ 0.212 mg/m <sup>3</sup> air		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (dust)	NOEC	OECD 413	0.399 mg/l		No adverse systemic effects	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

### Conclusion

Not classified for subchronic toxicity

### Mutagenicity (in vitro)

#### NAE-1600 B

No (test)data on the mixture available  
Judgement is based on the relevant ingredients  
p-toluenesulphonic acid (containing a maximum of 5% H<sub>2</sub>SO<sub>4</sub>)

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Chinese hamster lung fibroblasts (V79)	No effect	Experimental value	

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## N,N'-bis(3-aminopropyl)ethylenediamine

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Chinese hamster lung fibroblasts (V79)		Experimental value	

## 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value	

## calcium carbonate

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

### Mutagenicity (in vivo)

#### NAE-1600 B

No (test)data on the mixture available

Judgement is based on the relevant ingredients

p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474		Mouse (male / female)	Bone marrow	Read-across

#### Conclusion

Not classified for mutagenic or genotoxic toxicity

### Carcinogenicity

#### NAE-1600 B

No (test)data on the mixture available

Judgement is based on the relevant ingredients

p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Subcutaneous	NOAEL	Equivalent to OECD 453	≥ 727 mg/l	104 weeks (5 days / week)	Mouse (male / female)	No carcinogenic effect		Read-across

## calcium carbonate

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

#### Conclusion

Not classified for carcinogenicity

### Reproductive toxicity

#### NAE-1600 B

No (test)data on the mixture available

Judgement is based on the relevant ingredients

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## p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	Developmental toxicity study	> 3000 mg/kg bw/day	10 day(s)	Rat	No effect	Foetus	Read-across
Maternal toxicity (Oral (stomach tube))	NOAEL	Developmental toxicity study	> 3000 mg/kg bw/day	10 day(s)	Rat	No effect		Read-across
Effects on fertility (Oral (stomach tube))	NOAEL	Equivalent to OECD 421	300 mg/kg bw/day	46 day(s)	Rat (male / female)	No effect		Experimental value

## N,N'-bis(3-aminopropyl)ethylenediamine

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))		OECD 422	100 mg/kg bw/day		Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 422	30 mg/kg bw/day		Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL	OECD 422	100 mg/kg bw/day	29 day(s) - 53 day(s)	Rat (male / female)	No effect		Experimental value

## 3,3'-oxybis(ethyleneoxy)bis(propylamine)

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL (P)	OECD 422	600 mg/kg bw/day		Rat	No effect		Experimental value
Effects on fertility	NOAEL (P)	OECD 422	600 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

## calcium carbonate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (diet))	NOAEC	Equivalent to OECD 414	1963 mg/kg bw/day - 2188 mg/kg bw/day	62 day(s)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Oral (diet))	NOAEC	Equivalent to OECD 414	1963 mg/kg bw/day - 2188 mg/kg bw/day	62 day(s)	Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOEL	OECD 422	1000 mg/kg bw/day	48 day(s)	Rat (male / female)	No effect		Experimental value

### **Conclusion**

Not classified for reprotoxic or developmental toxicity

### **Toxicity other effects**

#### NAE-1600 B

No (test) data on the mixture available

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

#### NAE-1600 B

Skin rash/inflammation.

### **11.2. Information on other hazards**

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### **12.1. Toxicity**

#### NAE-1600 B

No (test) data on the mixture available

Judgement of the mixture is based on the relevant ingredients

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## p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	> 500 mg/l	96 h	Leuciscus idus	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	OECD 202	> 103 mg/l	48 h	Daphnia magna	Static system	Fresh water	Read-across; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	73 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; GLP
	NOEC	OECD 201	44.8 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; Growth rate
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea								Data waiving
Toxicity aquatic micro-organisms	NOEC	Equivalent to OECD 209	580 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; Respiration

## N,N'-bis(3-aminopropyl)ethylenediamine

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		220 mg/l - 460 mg/l	96 h	Leuciscus idus	Static system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	EU Method C.2	42.54 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	> 100 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; Nominal concentration
	NOEC	OECD 201	50 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 211	7.2 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction

## 3,3'-oxybis(ethyleneoxy)bis(propylamine)

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	DIN 38412-15	215 mg/l - 464 mg/l	96 h	Leuciscus idus	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	EU Method C.2	218.16 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	EC50	DIN 38412-9	> 500 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Nominal concentration
	EC10	DIN 38412-9	5.4 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish	NOEC		> 1 mg/l		Leuciscus idus		Fresh water	Calculated value
Long-term toxicity aquatic crustacea	NOEC		> 1 mg/l		Daphnia magna		Fresh water	Calculated value

## calcium carbonate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 100 %	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	OECD 202	> 100 %	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
	NOEC	OECD 201	50 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	Dose level		60 mg/l	42 day(s)	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; Calcium ion
Long-term toxicity aquatic crustacea								Data waiving
Toxicity aquatic micro-organisms	EC50	OECD 209	> 1000 mg/l	3 h	Activated sludge			Literature study

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# NAE-1600 B

## Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

## 12.2. Persistence and degradability

p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

### Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	69 % - 87 %; GLP	29 day(s)	Weight of evidence

### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	94.080 h	1.5E6 /cm <sup>3</sup>	Calculated value

N,N'-bis(3-aminopropyl)ethylenediamine

### Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	70 %; GLP	28 day(s)	Experimental value

### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	1.639 h	5E5 /cm <sup>3</sup>	Calculated value

3,3'-oxybis(ethyleneoxy)bis(propylamine)

### Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	0 %	28 day(s)	Experimental value

## Conclusion

### Water

Contains non readily biodegradable component(s)

## 12.3. Bioaccumulative potential

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### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

### Log Kow

Method	Remark	Value	Temperature	Value determination
EU Method A.8		-0.96	50 °C	Experimental value

N,N'-bis(3-aminopropyl)ethylenediamine

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	Equivalent to OECD 305	< 5	6 week(s)	Cyprinus carpio	Read-across

### Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		-1.55	23 °C	Practical experience/observation

3,3'-oxybis(ethyleneoxy)bis(propylamine)

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	0.89 - 3.16		Pisces	Estimated value

### Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		-1.25	25 °C	Experimental value

calcium carbonate

### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not quantifiable			

## Conclusion

Does not contain bioaccumulative component(s)

## 12.4. Mobility in soil

p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.582 - 1.206	Calculated value

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N,N'-bis(3-aminopropyl)ethylenediamine

(log) Koc

Parameter	Method	Value	Value determination
log Koc	OECD 106	3.2 - 3.7	Experimental value

3,3'-oxybis(ethyleneoxy)bis(propylamine)

(log) Koc

Parameter	Method	Value	Value determination
Koc	SRC PCKOCWIN v2.0	0.83	Estimated value

## Conclusion

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

## 12.5. Results of PBT and vPvB assessment

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

## 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

## 12.7. Other adverse effects

NAE-1600 B

### Greenhouse gases

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

p-toluenesulphonic acid (containing a maximum of 5% H2SO4)

### Groundwater

Groundwater pollutant

### Water ecotoxicity pH

pH shift

N,N'-bis(3-aminopropyl)ethylenediamine

### Water ecotoxicity pH

pH shift

3,3'-oxybis(ethyleneoxy)bis(propylamine)

### Water ecotoxicity pH

pH shift

calcium carbonate

### Water ecotoxicity pH

pH shift

## 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).

08 04 09\* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other 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. Should not be landfilled with 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

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# NAE-1600 B

UN number	2735
14.2. UN proper shipping name	
Proper shipping name	amines, liquid, corrosive, n.o.s. (3,3'-oxybis(ethyleneoxy)bis(propylamine))
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	no
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	amines, liquid, corrosive, n.o.s. (3,3'-oxybis(ethyleneoxy)bis(propylamine))
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	no
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	amines, liquid, corrosive, n.o.s. (3,3'-oxybis(ethyleneoxy)bis(propylamine))
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	no
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	amines, liquid, corrosive, n.o.s. (3,3'-oxybis(ethyleneoxy)bis(propylamine))
14.3. Transport hazard class(es)	
Class	8
14.4. Packing group	
Packing group	II
Labels	8
14.5. Environmental hazards	
Marine pollutant	-
Environmentally hazardous substance mark	no
14.6. Special precautions for user	

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# NAE-1600 B

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. Maritime transport in bulk according to IMO instruments

Annex II of MARPOL 73/78	Not applicable, based on available data
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## Air (ICAO-TI/IATA-DGR)

### 14.1. UN number

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

Proper shipping name	amines, liquid, corrosive, n.o.s. (3,3'-oxybis(ethyleneoxy)bis(propylamine))
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### 14.3. Transport hazard class(es)

Class	8
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### 14.4. Packing group

Packing group	II
Labels	8

### 14.5. Environmental hazards

Environmentally hazardous substance mark	no
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### 14.6. Special precautions for user

Special provisions	A3
Special provisions	A803

### Passenger and cargo transport

Limited quantities: maximum net quantity per packaging	0.5 L
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## 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
26 % - 59 %	
377 g/l - 855.5 g/l	

Directive 2012/18/EU (Seveso III)

Not subject to registration according to Directive 2012/18/EU (Seveso III)

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
· N,N'-bis(3-aminopropyl)ethylenediamine · 3,3'-oxybis(ethyleneoxy)bis(propylamine)	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage"; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
· p-toluenesulphonic acid (containing a maximum of 5% H2SO4)	Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances	Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081

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classified due to effects only following exposure by inhalation  
— reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation  
— skin sensitiser category 1, 1A or 1B  
— skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2  
— serious eye damage category 1 or eye irritant category 2  
(b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council  
(c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex.  
The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.

## National legislation Belgium

NAE-1600 B

No data available

## National legislation The Netherlands

NAE-1600 B

Waterbezuwaarlijkheid	B (3); Algemene Beoordelingsmethodiek (ABM)
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## National legislation France

NAE-1600 B

No data available

## National legislation Germany

NAE-1600 B

Lagerklasse (TRGS510)	8 A: Brennbare ätzende Gefahrstoffe
WGK	1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
<u>p-toluenesulphonic acid (containing a maximum of 5% H<sub>2</sub>SO<sub>4</sub>)</u>	
TA-Luft	5.2.1
<u>N,N'-bis(3-aminopropyl)ethylenediamine</u>	
TA-Luft	5.2.5/I
<u>3,3'-oxybis(ethyleneoxy)bis(propylamine)</u>	
TA-Luft	5.2.5/I
<u>calcium carbonate</u>	
TA-Luft	5.2.1

## National legislation Austria

NAE-1600 B

No data available

## National legislation United Kingdom

NAE-1600 B

No data available

## Other relevant data

NAE-1600 B

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- and EUH-statements referred to under section 3:

- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- 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.
- H335 May cause respiratory irritation.

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# NAE-1600 B

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
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

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. 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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