SAFETY DATA SHEET



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

NOVAKLEEN PH13

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

1.1. Product identifier

: NOVAKLEEN PH13 Product name **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

Detergent according to Regulation (EC) No 648/2004

Cleansing 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

Novatio*

Industrielaan 5B

B-2250 Olen

2 +32 14 25 76 40

4 +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

2 +32 14 85 97 37

4 +32 14 85 97 38

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 assorting to the criteria of Population (EC) No. 1272/2009

	Classified as dariger	assified as dangerous according to the criteria of negalation (LC) No 1272/2000		
Class Category Hazard stater		Category	Hazard statements	
	Skin Corr	category 1	H314: Causes severe skin hurns and eve damage	

2.2. Label elements



Contains: disodium metasilicate.

Signal word

H-statements

Causes severe skin burns and eye damage. H314

P-statements

P280 Wear protective gloves, protective clothing and eye protection/face protection.

P260 Do not breathe vapours.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P303 + P361 + P353

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. P305 + P351 + P338

Continue rinsing.

Immediately call a POISON CENTER/doctor. P310

2.3. Other hazards

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

Technische Schoolstraat 43 A, B-2440 Geel

http://www.big.be

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Reason for revision: 1.2; 9.1; 15.1 Revision number: 0903

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Product number: 32265

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
propan-2-ol 01-2119457558-25	67-63-0 200-661-7		Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent
disodium metasilicate 01-2119449811-37	6834-92-0 229-912-9		Met. Corr. 1; H290 Skin Corr. 1B; H314 STOT SE 3; H335	(1)(6)	Constituent
2-(2-butoxyethoxy)ethanol 01-2119475104-44	112-34-5 203-961-6	C<5 %	Eye Irrit. 2; H319	(1)(2)(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
- (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:

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. Take victim to an ophthalmologist.

After ingestion:

Rinse mouth with water. 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:

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:

Vomiting. 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

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 (alcohol-resistant), Water spray if puddle cannot expand.

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

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06
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On burning: release of harmful gases/vapours e.g.: carbon monoxide - carbon dioxide.

5.3. Advice for firefighters

5.3.1 Instructions:

No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Corrosion-proof suit. Protective goggles. 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. Corrosion-proof suit. Protective goggles.

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Contain released product. Dam up the liquid spill. Try to reduce evaporation. Take account of toxic/corrosive precipitation water. Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into absorbent material. Scoop absorbed substance 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 strict hygiene. 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. Protect against frost. Keep locked up. Unauthorized persons are not admitted. Keep out of direct sunlight. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, oxidizing agents, reducing agents, (strong) acids, (strong) bases.

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.

С	ı	1	
С	ι	J	

2-(2-Butoxyethoxy)ethanol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	10 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	67.5 mg/m ³
	Short time value (Indicative occupational exposure limit value)	15 ppm
	Short time value (Indicative occupational exposure limit value)	101.2 mg/m ³

Belgium

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06

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2-(2-Butoxyéthoxy)éthanol	Time-weighted average exposure limit 8 h	10 ppm
	Time-weighted average exposure limit 8 h	67.5 mg/m ³
	Short time value	15 ppm
	Short time value	101.2 mg/m ³
Alcool isopropylique	Time-weighted average exposure limit 8 h	200 ppm
	Time-weighted average exposure limit 8 h	500 mg/m ³
	Short time value	400 ppm
	Short time value	1000 mg/m ³
The Netherlands		
2-(2-butoxyethoxy)ethanol	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	7.4 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	e 50 mg/m³
	Short time value (Public occupational exposure limit value)	15 ppm
	Short time value (Public occupational exposure limit value)	100 mg/m ³
France		
2-(2-Butoxyéthoxy)éthanol	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	10 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	67.5 mg/m ³
	Short time value (VRI: Valeur réglementaire indicative)	15 ppm
	Short time value (VRI: Valeur réglementaire indicative)	101.2 mg/m ³
Alcool isopropylique	Short time value (VL: Valeur non réglementaire indicative)	400 ppm
	Short time value (VL: Valeur non réglementaire indicative)	980 mg/m ³
Germany	•	•
2-(2-Butoxyethoxy)ethanol	Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
2 (2 Batoxyctrioxy)ctriarior	Time-weighted average exposure limit 8 h (TRGS 900)	67 mg/m ³
Propan-2-ol	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	500 mg/m ³
UK	,	1
2-(2-Butoxyethoxy)ethanol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	67.5 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	15 ppm
	Short time value (Workplace exposure limit (EH40/2005))	101.2 mg/m ³
Propan-2-ol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	400 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	999 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1250 mg/m ³
USA (TLV-ACGIH)		
2-propanol	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	200 ppm
F - F - 75	Short time value (TLV - Adopted Value)	400 ppm
Diethylene glycol monobutyl ether	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	10 ppm (IFV)
(IFV): Inhalable fraction and vapor	[1 (•/

Germany

Nationally .				
Propan-2-ol (Aceton)	Urin: expositionsende, bzw. schichtende	25 mg/l	11/2012 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG	
Propan-2-ol (Aceton)	Vollblut: expositionsende, bzw. schichtende	25 mg/l	11/2012 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG	
Vitamin K-Antagonisten (Quick-Wert)	Vollblut: keine beschränkung	Reduktion auf nicht weniger als 70%	11/2012 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG	

USA (BEI-ACGIH)

2-Propanol (Acetone) Urine: end of shift at end of workweek 40 mg/L

8.1.2 Sampling methods

Product name	Test	Number
Butyl Carbitol	OSHA	2095

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06

Date of revision: 2018-02-20

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Product name	Test	Number
Isopropanol (Volatile Organic compounds)	NIOSH	2549
Isopropyl Alcohol (Alcohols I)	NIOSH	1400
Isopropyl Alcohol	OSHA	109

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

propan-2-ol

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	500 mg/m³	
	Long-term systemic effects dermal	888 mg/kg bw/day	

disodium metasilicate

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	6.22 mg/m³	
	Long-term systemic effects dermal	1.49 mg/kg bw/day	

2-(2-butoxyethoxy)ethanol

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	67.5 mg/m ³	
	Long-term local effects inhalation	67.5 mg/m ³	
	Acute local effects inhalation	101.2 mg/m³	
	Long-term systemic effects dermal	83 mg/kg bw/day	

DNEL/DMEL - General population

propan-2-ol

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	89 mg/m³	
	Long-term systemic effects dermal	319 mg/kg bw/day	
	Long-term systemic effects oral	26 mg/kg bw/day	

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Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	1.55 mg/m ³	
	Long-term systemic effects dermal	0.74 mg/kg bw/day	
	Long-term systemic effects oral	0.74 mg/kg bw/day	

2-(2-butoxyethoxy)ethanol

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	40.5 mg/m³	
	Long-term local effects inhalation	40.5 mg/m³	
	Acute local effects inhalation	60.7 mg/m³	
	Long-term systemic effects dermal	50 mg/kg bw/day	
	Long-term systemic effects oral	5 mg/kg bw/day	

PNEC

propan-2-ol

Compartments	Value	Remark
Fresh water	140.9 mg/l	
Marine water	140.9 mg/l	
Fresh water (intermittent releases)	140.9 mg/l	
STP	2251 mg/l	
Fresh water sediment	552 mg/kg sediment dw	
Marine water sediment	552 mg/kg sediment dw	
Soil	28 mg/kg soil dw	
Oral	160 mg/kg food	

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Compartments	Value	Remark
Fresh water	7.5 mg/l	
Marine water	1 mg/l	
Aqua (intermittent releases)	7.5 mg/l	
STP	1000 mg/l	

2-(2-butoxyethoxy)ethanol

Compartments	Value	Remark
Fresh water	1.1 mg/l	
Marine water	0.11 mg/l	
Aqua (intermittent releases)	11 mg/l	
STP	200 mg/l	
Fresh water sediment	4.4 mg/kg sediment dw	
Marine water sediment	0.44 mg/kg sediment dw	
Soil	0.32 mg/kg soil dw	
Food	56 mg/kg food	

8.1.5 Control banding

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06

Date of revision: 2018-02-20

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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 strict hygiene. 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	Breakthrough time	Thickness	Protection index
nitrile rubber	> 480 minutes	0.35 mm	Class 6

- materials (good resistance)

Nitrile rubber.

c) Eye protection:

Protective goggles.

d) Skin protection:

Head/neck 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	Characteristic odour
Odour threshold	No data available
Colour	No data available on colour
Particle size	Not applicable (liquid)
Explosion limits	No data available
Flammability	Non-flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	1 mPa.s ; 20 °C
Kinematic viscosity	1 mm²/s ; 20 °C
Melting point	0℃
Boiling point	78 °C - 233 °C
Evaporation rate	1.3; Butyl acetate
Relative vapour density	No data available
Vapour pressure	43 hPa ; 20 °C
Solubility	Water ; soluble
Relative density	1.0
Decomposition temperature	No data available
Auto-ignition temperature	200 °C
Flash point	> 70 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
рН	12.7

9.2. Other information

Absolute density	11020 kg/m ³	
lAbsolute density	I1029 kg/m ³	

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating increases the fire hazard. Substance has basic reaction.

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.

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06

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10.5. Incompatible materials

Oxidizing agents, reducing agents, (strong) acids, (strong) bases.

10.6. Hazardous decomposition products

On burning: release of harmful gases/vapours e.g.: carbon monoxide - carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

NOVAKLEEN PH13

No (test)data on the mixture available

Judgement is based on the relevant ingredients

propan-2-ol

Route of exposure	Parameter	Method	Value	Exposure time		Value determination	Remark
Oral		Equivalent to OECD 401	5840 mg/kg bw		Rat	Experimental value	
Dermal		Equivalent to OECD 402	16400 ml/kg bw	24 h		Experimental value	
Inhalation (vapours)	1	Equivalent to OECD 403	> 10000 ppm	6 h	l ' ' '	Experimental value	

disodium metasilicate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value	Remark
						determination	
Oral	LD50		1152 mg/kg bw -		Rat (male/female)	Experimental	
			1349 mg/kg bw			value	
Dermal	LD50	EPA OPPTS 870.1200	> 5000 mg/kg bw	24 h	Rat (male/female)	Read-across	
Inhalation (vapours)	LC50	EPA OPPTS 870.1300	> 2.06 mg/l air	4 h	Rat (male/female)	Read-across	

Based on corrosive properties a more severe classification for acute toxicity is not deemed necessary (expert judgement)

2-(2-butoxyethoxy)ethanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral		1 '	2410 mg/kg bw - 5530 mg/kg bw		Mouse (male)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	2764 mg/kg bw		Rabbit (male)	Experimental value	
Inhalation (aerosol)	IRT (inhalation risk test)	BASF test	> 29 ppm	2 h	Mouse	Experimental value	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVAKLEEN PH13

No (test)data on the mixture available

Classification is based on the $\ensuremath{\text{pH}}$

propan-2-ol

Route of exposure	Result	Method	Exposure time	Time point		Value determination	Remark
Eye		Equivalent to OECD 405		24 hours	Rabbit	Experimental value	Single treatment
Skin	Not irritating		4 h	4; 24; 48; 72 hours	Rabbit	Experimental value	

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06

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disodium metasilicate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value	Remark
						determination	
Eye	Corrosive		0.17 minutes	30 minutes; 1; 2; 4	Rabbit	Inconclusive,	
				hours; daily (14		insufficient data	
				days)			
Skin	Corrosive	OECD 404	4 h	1; 24; 48; 72 hours	Rabbit	Experimental value	
Inhalation (dust)	Irritating;					Annex VI	
	STOT SE cat.3						

2-(2-butoxyethoxy)ethanol

	Route of exposure	Result	Method	Exposure time	Time point		Value determination	Remark
	Eye	Highly irritating	OECD 405	72 h	24; 48; 72 hours	Rabbit	Experimental value	Single treatment with rinsing
5	Skin	Slightly irritating	OECD 404		24; 48; 72 hours	Rabbit	Experimental value	

Conclusion

Causes severe skin burns and eye damage.

Respiratory or skin sensitisation

NOVAKLEEN PH13

No (test)data on the mixture available Judgement is based on the relevant ingredients propan-2-ol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		,	Guinea pig (male/female)	Experimental value	

disodium metasilicate

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

2-(2-butoxyethoxy)ethanol

=	(E suconjection) jet	<u></u>						
	Route of exposure	Result	Method	Exposure time	Observation time	Species	Value determination	Remark
					point			
	Skin	Not sensitizing	Equivalent to OECD		24; 48 hours	Guinea pig	Experimental value	
			406			(male/female)		

Conclusion

Not classified as sensitizing for skin

Specific target organ toxicity

NOVAKLEEN PH13

No (test)data on the mixture available

 $\label{lem:continuous} \mbox{\bf Judgement is based on the relevant ingredients}$

propan-2-ol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	 Value determination
Oral							Data waiving
Dermal							Data waiving
Inhalation (vapours)	NOAEC	OECD 451	5000 ppm			104 weeks (6h/day, 5 days/week)	Experimental value
Inhalation (vapours)		Equivalent to OECD 403	5000 ppm	Central nervous system	Drowsiness, dizziness	6 h	Experimental value

disodium metasilicate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value
								determination
Oral	I -	l '	> 227 mg/kg bw/dav	General	No effect	(-)	l	Experimental value
Dermal			, ,				,,,	Data waiving
Inhalation								Data waiving

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06

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2-(2-butoxyethoxy)ethanol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	 Value determination
Oral (drinking water)	NOAEL	OECD 408	250 mg/kg bw/day		No effect	, .	Experimental value
Dermal	I -	Equivalent to OECD 411	< 200 mg/kg bw/day	Skin	Not irritating	(// -	Experimental value
Inhalation	NOAEL	OECD 413	14 ppm	Lungs	No effect	/ - (- , / /	Experimental value

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

NOVAKLEEN PH13

No (test)data on the mixture available

propan-2-ol

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

disodium metasilicate

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 476	Chinese hamster lung	No effect	Read-across
		fibroblasts (V79)		

2-(2-butoxyethoxy)ethanol

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster ovary (CHO)		Experimental value
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value

Mutagenicity (in vivo)

NOVAKLEEN PH13

No (test)data on the mixture available

Judgement is based on the relevant ingredients

propan-2-ol

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

disodium metasilicate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD	24 h	Mouse (male)		Experimental value
	475				

2-(2-butoxyethoxy)ethanol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD		Mouse (male/female)		Experimental value
	475				

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVAKLEEN PH13

No (test)data on the mixture available

Judgement is based on the relevant ingredients

propan-2-ol

Route of	Parameter	Method	Value	Exposure time	Species	Effect	- 0	Value
exposure								determination
Inhalation	NOEL	OECD 451	5000 ppm	104 weeks (6h/day,	Rat	No carcinogenic		Experimental
(vapours)				5 days/week)	(male/female)	effect		value

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06
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disodium metasilicate

Route of	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value
exposure								determination
Oral (drinking	Dose level		150 mg/kg	14 month(s)	Rat	No effect		
water)			bw/day		(male/female)			ĺ

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVAKLEEN PH13

No (test)data on the mixture available

Judgement is based on the relevant ingredients

propan-2-ol

pan z oi						_		
	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value
								determination
Developmental toxicity	NOAEL	Equivalent to	400 mg/kg	10 day(s)	Rat	No effect	Foetus	Experimental
(Oral (stomach tube))		OECD 414	bw/day					value
Maternal toxicity (Oral	NOAEL	Equivalent to	400 mg/kg	10 day(s)	Rat (female)	No effect		Experimental
(stomach tube))		OECD 414	bw/day					value
Effects on fertility (Oral	NOAEL	Equivalent to	853 mg/kg	21 day(s) - 70	Rat	No effect		Experimental
(drinking water))		OECD 415	bw/day	day(s)	(male/female)			value

disodium metasilicate

	Parameter	Method	Value	Exposure time	Species	Effect	0	Value determination
Developmental toxicity	NOAEL		> 200 mg/kg bw/day	/ (- /	Mouse (male/female)	No effect		Experimental value
Maternal toxicity	NOAEL		12.5 mg/kg bw/day	18 day(s)	Mouse (female)	No effect	1	Experimental value
Effects on fertility	NOAEL (P)		> 159 mg/kg bw/day		Rat (female)	No effect		Read-across

2-(2-butoxyethoxy)ethanol

	Parameter	Method	Value	Exposure time	Species	Effect	0.	Value determination
Developmental toxicity	NOAEL	1 '	633 mg/kg bw/day	21 days (gestation, daily)	Rat	No effect	1	Experimental value
Maternal toxicity	NOAEL	'	633 mg/kg bw/day	21 days (gestation, daily)	Rat	No effect	1	Experimental value
	NOAEL	Equivalent to OECD 414	1000 mg/kg bw/day	12 days (gestation, daily)	Rabbit	No effect	1	Experimental value
Effects on fertility	NOAEL (P)	NTP continuous breeding protocol	720 mg/kg bw/day	(-)	Mouse (male/female)	No effect		Read-across

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

NOVAKLEEN PH13

No (test)data on the mixture available

Chronic effects from short and long-term exposure

NOVAKLEEN PH13

No effects known.

SECTION 12: Ecological information

12.1. Toxicity

NOVAKLEEN PH13

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06

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propan-2-ol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	9640 mg/l - 10000 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	LC50	Equivalent to OECD 202	> 10000 mg/l	24 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	Toxicity threshold		1800 mg/l	7 day(s)	Scenedesmus quadricauda	Static system	Fresh water	Experimental value; Toxicity test
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC		2344 μmol/l	16 day(s)	Daphnia magna		Fresh water	Experimental value; Growth
Toxicity aquatic micro- organisms	, <i>'</i>	Equivalent to DIN 38412/8	1050 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	Experimental value; Toxicity test
	EC50	ISO 8192	41676 mg/l	30 minutes	Activated sludge			Experimental value

disodium metasilicate

	Parameter	Method	Value	Duration	Species		Fresh/salt water	Value determination
Acute toxicity fishes	LC50	ISO 7346-1	210 mg/l	96 h	Brachydanio rerio	Semi-static system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	EU Method C.2	1700 mg/l	48 h	Daphnia magna	Static system	Fresh water	Read-across; GLP
Toxicity algae and other aquatic plants	EC0	DIN 38412-9	> 345.4 mg/l	72 h	Desmodesmus subspicatus			Read-across; Growth rate

2-(2-butoxyethoxy)ethanol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	1300 mg/l	96 h	Lepomis macrochirus	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	EU Method C.2	> 100 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	Equivalent to OECD 201	1101 mg/l	72 h	Pseudokirchnerie Ila subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea								Data waiving
Toxicity aquatic micro- organisms	EC10	Equivalent to OECD 209	> 1995 mg/l	30 minutes	Activated sludge	Static system	Fresh water	Experimental value; Nominal concentration

Conclusion

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

12.2. Persistence and degradability

propan-2-ol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301E: Modified OECD Screening Test	95 %	21 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	17.668 h	1500000 /cm³	Calculated value

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2-(2-butoxyethoxy)ethanol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301C: Modified MITI Test (I)	85 %; Oxygen consumption	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN	11 h	500000 /cm³	Estimated value

Biodegradation soil

Method	Value	Duration	Value determination
			Data waiving

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
			Data waiving

Conclusion

The surfactant(s) is/are biodegradable

12.3. Bioaccumulative potential

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Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

propan-2-ol

Log Kow

Method	Remark	Value	Temperature	Value determination
			25 °C	Weight of evidence approach

disodium metasilicate

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable			

2-(2-butoxyethoxy)ethanol

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
					Data waiving

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		1	20 °C	Experimental value

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

propan-2-ol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.185 - 0.541	Calculated value

2-(2-butoxyethoxy)ethanol

(log) Koc

Parameter	Method	Value	Value determination
			Data waiving

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	0.01 %	0 %	0.01 %	0.32 %	99.66 %	QSAR

Conclusion

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)

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propan-2-ol

Groundwater

Groundwater pollutant

2-(2-butoxyethoxy)ethanol

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 29* (separately collected fractions (except 15 01): detergents containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

Neutralize. Remove to an authorized incinerator with energy recovery. 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. Treat using the best available techniques before discharge into drains or the aquatic environment.

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	1719		
14.2. UN proper shipping name			
Proper shipping name	Caustic alkali liquid, n.o.s. (disodium metasilicate)		
14.3. Transport hazard class(es)	3. Transport hazard class(es)		
Hazard identification number	80		
Class	8		
Classification code	C5		
14.4. Packing group			
Packing group	III		
Labels	8		
14.5. Environmental hazards	5. Environmental hazards		
Environmentally hazardous substance mark	no		
14.6. Special precautions for user			
Special provisions	274		
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)		
Specific mention	Classified corrosive on grounds of extreme pH value		

Rai

ıil (I	RID)			
14.	14.1. UN number			
	UN number	1719		
14.2. UN proper shipping name				
	Proper shipping name	Caustic alkali liquid, n.o.s. (disodium metasilicate)		
14.	3. Transport hazard class(es)			
	Hazard identification number	80		
	Class	8		
	Classification code	C5		
14.4. Packing group				
	Packing group	III		
	Labels	8		
14.	14.5. Environmental hazards			
	Environmentally hazardous substance mark	no		
14.	6. Special precautions for user			
	Special provisions	274		

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	Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
	Specific mention	Classified corrosive on grounds of extreme pH value
Inland	d waterways (ADN)	
14.	1. UN number	
	UN number	1719
14.	2. UN proper shipping name	
	Proper shipping name	Caustic alkali liquid, n.o.s. (disodium metasilicate)
14.	3. Transport hazard class(es)	T ₋
	Class	8
	Classification code 4. Packing group	C5
	Packing group	III
	Labels	8
	5. Environmental hazards	<u> </u>
	Environmentally hazardous substance mark	no
	6. Special precautions for user	
	Special provisions	274
	Limited quantities	Combination packagings: not more than 5 liters per inner packaging for
		liquids. A package shall not weigh more than 30 kg. (gross mass)
	Specific mention	Classified corrosive on grounds of extreme pH value
Sea (I	MDG/IMSBC)	
14.	1. UN number	
	UN number	1719
14.	2. UN proper shipping name	
	Proper shipping name	Caustic alkali liquid, n.o.s. (disodium metasilicate)
14.	3. Transport hazard class(es)	
	Class	8
	4. Packing group	
	Packing group	
	Labels	8
	5. Environmental hazards	
	Marine pollutant Environmentally hazardous substance mark	no
	6. Special precautions for user	IIIO
14.	Special previsions	223
	Special provisions	274
	Limited quantities	Combination packagings: not more than 5 liters per inner packaging for
	'	liquids. A package shall not weigh more than 30 kg. (gross mass)
	Specific mention	Classified corrosive on grounds of extreme pH value
	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 (I	CAO-TI/IATA-DGR)	
	1. UN number	
	UN number	1719
	2. UN proper shipping name	
	Proper shipping name	Caustic alkali liquid, n.o.s. (disodium metasilicate)
14.	3. Transport hazard class(es)	
	Class	8
14.	4. Packing group	
	Packing group	III
	Labels	8
	5. Environmental hazards	
	Environmentally hazardous substance mark	no
14.	6. Special precautions for user	A2
	Special provisions	A3 A803
	Special provisions Limited quantities: maximum net quantity per packaging	1 L
	Specific mention	Classified corrosive on grounds of extreme pH value
	Specific mention	Crassified corrosive of grounds of extreffie hu value

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06
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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
1.78 %	
33.130 g/l	

Ingredients according to Regulation (EC) No 648/2004 and amendments

<5% phosphates, <5% non-ionic surfactants, <5% EDTA and salts thereof, <5% anionic surfactants, perfumes European drinking water standards (Directive 98/83/EC)

disodium metasilicate

Parameter	Parametric value	Note	Reference
Sodium	200 mg/l		Listed in Annex I, Part C, of Directive 98/83/EC on the quality of
			water intended for human consumption.

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

	ngerous substances, mixtures and articles. Designation of the substance, of the group of	Conditions of restriction
	substances or of the mixture	
propan-2-ol 2-(2-butoxyethoxy)ethanol	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: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8	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 R65 or 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 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 o 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 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"; 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. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordanc
· propan-2-ol	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.	 artificial snow and frost, "whoopee" cushions, silly string aerosols,

Reason for revision: 1.2; 9.1; 15.1 Publication date: 2001-07-06 Date of revision: 2018-02-20

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		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.
2-(2-butoxyethoxy)ethanol	2-(2-butoxyethoxy)ethanol (DEGBE)	1. Shall not be placed on the market for the first time after 27 June 2010, for supply to the general public, as a constituent of spray paints or spray cleaners in aerosol dispensers in concentrations equal to or greater than 3 % by weight. 2. Spray paints and spray cleaners in aerosol dispensers containing DEGBE and not conforming to paragraph 1 shall not be placed on the market for supply to the general public after 27 December 2010. 3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that paints other than spray paints containing DEGBE in concentrations equal to or greater than 3 % by weight of that are placed on the market for supply to the general public are visibly, legibly and indelibly marked by 27 December 2010 as follows: "Do not use in paint spraying equipment".

National legislation Belgium

NOVAKLEEN PH13

No data available

National legislation The Netherlands

NOVAKLEEN PH13

Waterbezwaarlijkheid	B (5)
2-(2-butoxyethoxy)ethanol	
Huidopname (wettelijk)	2-(2-butoxyethoxy)ethanol: H

National legislation France

NOVAKLEEN PH13

No data available

National legislation Germany

NOVAKLEEN PH13

		1; 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	
р	propan-2-ol		
	TA-Luft	5.2.5	
	TRGS900 - Risiko der	Propan-2-ol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen	
	Fruchtschädigung	Grenzwertes nicht befürchtet zu werden	
<u>d</u>	disodium metasilicate		
	TA-Luft	5.2.1	
2	2-(2-butoxyethoxy)ethanol		
	TA-Luft	5 2 5	

2-(2-Butoxyethoxy)ethanol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des

National legislation United Kingdom

TRGS900 - Risiko der Fruchtschädigung

NOVAKLEEN PH13

No data available

Other relevant data

NOVAKLEEN PH13

No data available

propan-2-ol

₽	property 2 of	
	IARC - classification	3; Isopropanol
	TLV - Carcinogen	2-propanol: A4

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:

H225 Highly flammable liquid and vapour.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

(*) INTERNAL CLASSIFICATION BY BIG

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 %

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biologischen Grenzwertes nicht befürchtet zu werden

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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. 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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