

SAFETY DATA SHEET

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



UNI PASTE

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

1.1. Product identifier

Product name : UNI PASTE
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

Polishing agent
Detergent according to Regulation (EC) No 648/2004

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@tec7.be

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Class	Category	Hazard statements
STOT RE	category 1	H372: Causes damage to organs through prolonged or repeated exposure.
STOT SE	category 3	H336: May cause drowsiness or dizziness.
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.

2.2. Label elements



Contains: hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%).

Signal word

Danger

H-statements

H372 Causes damage to organs through prolonged or repeated exposure.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

P-statements

P260 Do not breathe vapours/mist.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

Technische Schoolstraat 43 A, B-2440 Geel

<http://www.big.be>

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134-16239-691-en

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P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

Supplemental information

EUH066

Repeated exposure may cause skin dryness or cracking.

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
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) 01-2119458049-33		C≤30%	Flam. Liq. 3; H226 STOT RE 1; H372 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(10)	Constituent
2,2',2''-nitrilotriethanol 01-2119486482-31	102-71-6 203-049-8	C≤2%		(2)	Constituent
ammonia 01-2119488876-14	1336-21-6 215-647-6	C≤1%	Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400	(1)(2)(8)(9)(10)	Constituent

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

(2) Substance with a Community workplace exposure limit

(8) Specific concentration limits, see heading 16

(9) M-factor, see heading 16

(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:

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:

Rinse with water. Do not apply (chemical) neutralizing agents without medical advice. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Do not induce vomiting. Do not apply (chemical) neutralizing agents without medical advice. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Central nervous system depression. Narcosis.

After skin contact:

ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

After eye contact:

After ingestion:

Abdominal pain. Vomiting. Headache. Diarrhoea. Nausea.

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:

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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

Upon combustion CO and CO2 are formed (carbon monoxide - carbon dioxide).

5.3. Advice for firefighters

5.3.1 Instructions:

Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: compressed air 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 heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

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

7.1. Precautions for safe handling

Keep away from naked flames/heat. Gas/vapour heavier than air at 20°C. Observe very strict hygiene - avoid contact. 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:

Storage temperature: < 50 °C. Protect against frost. Keep out of direct sunlight. Ventilation at floor level. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, oxidizing agents, (strong) acids.

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.

EU

Ammonia, anhydrous	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	20 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	14 mg/m ³
	Short time value (Indicative occupational exposure limit value)	50 ppm
	Short time value (Indicative occupational exposure limit value)	36 mg/m ³

Belgium

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Ammoniac	Time-weighted average exposure limit 8 h	20 ppm
	Time-weighted average exposure limit 8 h	14 mg/m ³
	Short time value	50 ppm
	Short time value	36 mg/m ³
Triéthanolamine	Time-weighted average exposure limit 8 h	5 mg/m ³

The Netherlands

Ammoniak	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	20 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	14 mg/m ³
	Short time value (Public occupational exposure limit value)	51 ppm
	Short time value (Public occupational exposure limit value)	36 mg/m ³

France

Ammoniac anhydre	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	10 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	7 mg/m ³
	Short time value (VRC: Valeur réglementaire contraignante)	20 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	14 mg/m ³

Germany

2,2',2''-Nitrilotriethanol	Time-weighted average exposure limit 8 h (TRGS 900)	1 mg/m ³
Ammoniak	Time-weighted average exposure limit 8 h (TRGS 900)	20 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	14 mg/m ³

UK

Ammonia, anhydrous	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	25 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	18 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	35 ppm
	Short time value (Workplace exposure limit (EH40/2005))	25 mg/m ³

USA (TLV-ACGIH)

Ammonia	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	25 ppm
	Short time value (TLV - Adopted Value)	35 ppm
Triethanolamine	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	5 mg/m ³

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
Ammonia (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Ammonia	NIOSH	6015
Ammonia	NIOSH	6015REV
Ammonia	NIOSH	6016
Ammonia	NON	41
Ammonia	OSHA	ID188
Triethanolamine (Aminoethanol Compounds II)	NIOSH	3509
Triethanolamine	OSHA	2141

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

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	330 mg/m ³	
	Acute systemic effects inhalation	570 mg/m ³	
	Long-term systemic effects dermal	21 mg/kg bw/day	

2,2',2''-nitrilotriethanol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	1 mg/m ³	
	Long-term systemic effects dermal	7.5 mg/kg bw/day	
	Long-term local effects dermal	140 µg/cm ²	

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ammonia

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	47.6 mg/m ³	Test data of the pure substance
	Acute systemic effects inhalation	47.6 mg/m ³	Test data of the pure substance
	Long-term local effects inhalation	14 mg/m ³	Test data of the pure substance
	Acute local effects inhalation	36 mg/m ³	Test data of the pure substance
	Long-term systemic effects dermal	6.8 mg/kg bw/day	Test data of the pure substance
	Acute systemic effects dermal	6.8 mg/kg bw/day	Test data of the pure substance

DNEL/DMEL - General population

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	71 mg/m ³	
	Acute systemic effects inhalation	570 mg/m ³	
	Long-term systemic effects dermal	12 mg/kg bw/day	
	Long-term systemic effects oral	21 mg/kg bw/day	

2,2',2''-nitrilotriethanol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	0.4 mg/m ³	
	Long-term systemic effects dermal	2.66 mg/kg bw/day	
	Long-term local effects dermal	70 µg/cm ²	
	Long-term systemic effects oral	3.3 mg/kg bw/day	

ammonia

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	23.8 mg/m ³	Test data of the pure substance
	Acute systemic effects inhalation	23.8 mg/m ³	Test data of the pure substance
	Long-term local effects inhalation	2.8 mg/m ³	Test data of the pure substance
	Acute local effects inhalation	7.2 mg/m ³	Test data of the pure substance
	Long-term systemic effects dermal	68 mg/kg bw/day	Test data of the pure substance
	Acute systemic effects dermal	68 mg/kg bw/day	Test data of the pure substance
	Long-term systemic effects oral	6.8 mg/kg bw/day	Test data of the pure substance
	Acute systemic effects oral	6.8 mg/kg bw/day	Test data of the pure substance

PNEC

2,2',2''-nitrilotriethanol

Compartment	Value	Remark
Fresh water	0.32 mg/l	
Marine water	0.032 mg/l	
Fresh water (intermittent releases)	5.12 mg/l	
STP	10 mg/l	
Fresh water sediment	1.7 mg/kg sediment dw	
Marine water sediment	0.17 mg/kg sediment dw	
Soil	0.151 mg/kg soil dw	

ammonia

Compartment	Value	Remark
Fresh water	0.001 mg/l	Test data of the pure substance
Marine water	0.001 mg/l	Test data of the pure substance
Fresh water (intermittent releases)	0.007 mg/l	Test data of the pure substance

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

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

8.2.1 Appropriate engineering controls

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

8.2.2 Individual protection measures, such as personal protective equipment

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

a) Respiratory protection:

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

b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 480 minutes	0.35 mm	Class 6	

c) Eye protection:

Safety glasses (EN 166).

d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

UNI PASTE

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Paste
Viscosity	Viscous
Odour	Characteristic odour
Odour threshold	No data available
Colour	Rose
Particle size	Not applicable (liquid)
Explosion limits	0.7 - 6 vol %
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	10000 mPa.s ; 20 °C
Kinematic viscosity	8065 mm ² /s ; 40 °C
Melting point	No data available in the literature
Boiling point	100 °C - 360 °C
Evaporation rate	0.30 ; Butyl acetate
Relative vapour density	No data available in the literature
Vapour pressure	23 hPa ; 20 °C
Solubility	Water ; insoluble
Relative density	1.24 ; 20 °C
Decomposition temperature	No data available in the literature
Auto-ignition temperature	260 °C
Flash point	63 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	8.3

9.2. Other information

Absolute density	1240 kg/m ³ ; 20 °C
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SECTION 10: Stability and reactivity

10.1. Reactivity

Temperature above flashpoint: higher fire/explosion hazard. 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.

10.5. Incompatible materials

Oxidizing agents, (strong) acids.

10.6. Hazardous decomposition products

Upon combustion CO and CO₂ are formed (carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

UNI PASTE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

UNI PASTE

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 15000 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Other	> 3400 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 13.1 mg/l air	4 h	Rat (male / female)	Experimental value	

2,2',2''-nitritotriethanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	6400 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 2000 mg/kg bw		Rabbit	Experimental value	
Inhalation (vapours)	LC0	Equivalent to OECD 403	1.8 mg/m ³	8 h	Rat (male / female)	Experimental value	

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	350 mg/kg bw		Rat (male)	Experimental value	Aqueous solution
Dermal						Data waiving	
Inhalation	LC50		9850 mg/m ³ air	60 minutes	Rat (male)	Experimental value	Test data of the pure substance

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

Conclusion

Not classified for acute toxicity

Corrosion/irritation

UNI PASTE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	Human observation	4 h - 6 h	24; 48 hours	Human	Experimental value	

2,2',2''-nitritotriethanol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		1; 3; 7; 14; 21 days	Rabbit	Experimental value	
Skin	Not irritating	OECD 404	4 h	4; 24; 48; 72 hours	Rabbit	Experimental value	

ammonia

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage; category 1					Annex VI	
Skin	Corrosive; category 1B					Annex VI	

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

UNI PASTE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

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hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (male / female)	Experimental value	
Skin	Not sensitizing	Human observation	3 weeks (5 days / week)	24; 48 hours	Human (male / female)	Experimental value	

2,2',2''-nitritotriethanol

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

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Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	
Inhalation						Data waiving	

Conclusion

Not classified as sensitizing for skin

Specific target organ toxicity

UNI PASTE

No (test)data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	1056 mg/kg bw/day		No effect	30 day(s)	Rat (female)	Experimental value
Dermal	NOAEL systemic effects	Equivalent to OECD 411	> 495 mg/kg bw/day		No adverse systemic effects	13 weeks (5 days / week)	Rat (female)	Read-across
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	690 ppm		No effect	13 weeks (6h / day, 5 days / week)	Rat (female)	Experimental value
Inhalation			STOT RE cat.1		Impairment/degeneration			Literature study
Inhalation	NOAEC		570 mg/m ³ air	Central nervous system	No effect	2 days (4h / day)	Human (male)	Read-across

2,2',2''-nitritotriethanol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	Equivalent to OECD 408	1000 mg/kg bw			91 days (continuous)	Rat (male / female)	Experimental value
Dermal	NOAEL local effects	Equivalent to OECD 411	125 mg/kg bw/day		No effect	13 weeks (5 days / week)	Rat (male)	Experimental value
Dermal	NOAEL local effects	Equivalent to OECD 411	250 mg/kg bw/day			13 weeks (5 days / week)	Rat (female)	Experimental value
Dermal	NOAEL systemic effects	Equivalent to OECD 411	125 mg/kg bw/day	Kidney	No adverse systemic effects	13 weeks (5 days / week)	Rat (male)	Experimental value
Dermal	NOAEL systemic effects	Equivalent to OECD 411	500 mg/kg bw/day	Kidney	No adverse systemic effects	13 weeks (5 days / week)	Rat (female)	Experimental value
Inhalation (vapours)	NOAEC systemic effects	OECD 412	0.5 mg/l air		No adverse systemic effects	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	NOAEC local effects	OECD 412	0.02 mg/l air		No effect	4 weeks (6h / day, 5 days / week)	Rat (female)	Experimental value

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Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	250 mg/kg bw/day	General	No effect	35 day(s)	Rat (male / female)	Read-across
Oral (stomach tube)	LOAEL	OECD 422	750 mg/kg bw/day	General	Overall effects	35 day(s)	Rat (male / female)	Read-across
Dermal								Data waiving
Inhalation (gases)	LOEL	Subchronic toxicity test	119 mg/m ³ air	General	Histopathology	18 weeks (6h / day, 5 days / week)	Guinea pig (male)	Experimental value

Conclusion

Causes damage to organs through prolonged or repeated exposure.
May cause drowsiness or dizziness.

Mutagenicity (in vitro)

UNI PASTE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

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

2,2',2''-nitritotriethanol

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

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Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	Test data of the pure substance

Mutagenicity (in vivo)

UNI PASTE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

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

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

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

UNI PASTE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	≥ 2200 mg/m ³ air	105 weeks (6h / day, 5 days / week)	Rat (female)	No carcinogenic effect		Read-across

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2,2',2''-nitrilotriethanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Dermal	NOAEL	Equivalent to OECD 451	250 mg/kg bw/day	103 weeks (5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

ammonia

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral	NOAEL	Equivalent to OECD 453	256 mg/kg bw/day	104 weeks (daily)	Rat (female)	No carcinogenic effect		Read-across

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

UNI PASTE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	≥ 5220 mg/m ³ air	10 days (6h / day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity	NOAEL	Equivalent to OECD 414	≥ 5220 mg/m ³ air		Rat	No effect		Experimental value
Effects on fertility	NOAEL	Equivalent to OECD 416	≥ 300 mg/kg bw/day	16 weeks (daily)	Rat (male / female)	No effect		Experimental value

2,2',2''-nitrilotriethanol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 421	300 mg/kg bw/day		Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 421	> 1000 mg/kg bw/day		Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL (P)	OECD 421	> 1000 mg/kg bw/day	7 day(s)	Rat (male / female)	No effect		Experimental value

ammonia

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	100 mg/kg bw/day	23 day(s)	Rabbit	No effect		Read-across
Maternal toxicity	NOAEL	Equivalent to OECD 414	1 mg/kg bw/day	23 day(s)	Rabbit	No effect		Read-across
Effects on fertility	NOAEL (P)	OECD 422	1500 mg/kg bw/day	28 day(s) - 53 day(s)	Rat (male / female)	No effect		Read-across

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

UNI PASTE

No (test)data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
			Skin	Skin dryness or cracking			Literature study

Conclusion

Repeated exposure may cause skin dryness or cracking.

Chronic effects from short and long-term exposure

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Impairment of the nervous system.

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SECTION 12: Ecological information

12.1. Toxicity

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No (test)data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	10 mg/l WAF - 30 mg/l WAF	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	10 mg/l - 22 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	4.1 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOELR		0.13 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR; Growth
Long-term toxicity aquatic crustacea	EC50	OECD 211	0.328 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Read-across; Reproduction
Toxicity aquatic micro-organisms	EL50	Other	43.98 mg/l	48 h	Tetrahymena pyriformis		Fresh water	QSAR

2,2',2''-nitritotriethanol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	APHA	11800 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	ASTM E1192	609.88 mg/l	48 h	Ceriodaphnia dubia	Static system	Fresh water	Experimental value; Lethal
Toxicity algae and other aquatic plants	ErC50	DIN 38412-9	216 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 211	125 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	IC50	OECD 209	> 1000 mg/l	180 minutes	Activated sludge	Static system	Fresh water	Experimental value; Respiration

ammonia

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		0.6 mg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value

Conclusion

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	74.7 %; GLP	28 day(s)	Read-across

2,2',2''-nitritotriethanol

Biodegradation water

Method	Value	Duration	Value determination
	100 %	5 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
SRC AOP v1.92	3.5 h	0.5E6 /cm ³	Calculated value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
	0.5 day(s) - 1.8 day(s)		Experimental value

Conclusion

Contains readily biodegradable component(s)

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12.3. Bioaccumulative potential

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Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Log Kow

Method	Remark	Value	Temperature	Value determination
		3.7 - 6.7		

2,2',2''-nitritotriethanol

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	Equivalent to OECD 305	0.4 l/kg - 3.9 l/kg	6 week(s)	Cyprinus carpio	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		-1.9	25 °C	Weight of evidence approach

ammonia

Log Kow

Method	Remark	Value	Temperature	Value determination
		0.23	25 °C	Estimated value

Conclusion

Contains bioaccumulative component(s)

12.4. Mobility in soil

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	96 %		1.3 %	0.077 %	1.4 %	Calculated value

2,2',2''-nitritotriethanol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v1.66	1.06 - 1.27	Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I					100 %	Calculated value

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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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)

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Groundwater

Groundwater pollutant

2,2',2''-nitritotriethanol

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. The waste code must be assigned by the user, preferably in consultation with the (environmental) authorities concerned.

13.1.2 Disposal methods

Reason for revision: 3.2; 8; 15

Publication date: 2007-09-20

Date of revision: 2020-02-20

Revision number: 0402

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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. 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), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

14.1. UN number	Transport	Not subject
14.2. UN proper shipping name		
14.3. Transport hazard class(es)		
	Hazard identification number	
	Class	
	Classification code	
14.4. Packing group		
	Packing group	
	Labels	
14.5. Environmental hazards		
	Environmentally hazardous substance mark	no
14.6. Special precautions for user		
	Special provisions	
	Limited quantities	
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code		
	Annex II of MARPOL 73/78	Not applicable, based on available data

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
24.50 %	
303.800 g/l	

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

15-30% aromatic hydrocarbons

European drinking water standards (Directive 98/83/EC)

ammonia

Parameter	Parametric value	Note	Reference
Ammonium	0.5 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 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
· hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) · ammonia	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";

Reason for revision: 3.2; 8; 15

Publication date: 2007-09-20

Date of revision: 2020-02-20

Revision number: 0402

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		<p>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";</p> <p>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> <p>6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled H304, intended for supply to the general public.</p> <p>7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'</p>
· hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	<p>1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:</p> <ul style="list-style-type: none"> — metallic glitter intended mainly for decoration, — artificial snow and frost, — "whoopie" cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs. <p>2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:</p> <p>"For professional users only".</p> <p>3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.</p> <p>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.</p>

National legislation Belgium

UNI PASTE

No data available

National legislation The Netherlands

UNI PASTE

Waterbezwaarlijkheid	A (3); Algemene Beoordelingsmethodiek (ABM)
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National legislation France

UNI PASTE

No data available

National legislation Germany

UNI PASTE

WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
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hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

TA-Luft	5.2.5/I
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2,2',2''-nitritotriethanol

TA-Luft	5.2.5/I
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TRGS900 - Risiko der Fruchtschädigung	2,2',2''-Nitritotriethanol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
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ammonia

TRGS900 - Risiko der Fruchtschädigung	Ammoniak; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
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National legislation United Kingdom

UNI PASTE

No data available

Other relevant data

UNI PASTE

No data available

2,2',2''-nitritotriethanol

IARC - classification	3; Triethanolamine
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15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

Reason for revision: 3.2; 8; 15

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Date of revision: 2020-02-20

Revision number: 0402

Product number: 44969

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SECTION 16: Other information

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

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs through prolonged or repeated exposure.
H372 Causes damage to organs (central nervous system) through prolonged or repeated exposure if inhaled.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
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

M-factor

ammonia	1	Acute	BIG
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Specific concentration limits CLP

ammonia	C ≥ 5 %	STOT SE 3; H335	CLP Annex VI (ATP 0)
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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.