

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

1.1. Product identifier

Product form	: Mixture
Trade name	: Dust control
Product code	: DUC
Product group	: Blend

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Chemicar Europe NV
Baarbeek 2
2070 Zwijndrecht
T +32 (0) 3 234 87 80 - F +32 (0) 3 234 87 89
info@chemicar.eu

1.4. Emergency telephone number

Emergency number : +32 (0) 3 760 08 09

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements	: EUH210 - Safety data sheet available on request.
Extra phrases	: Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008.

Scandinavian countries regulation

Denmark	
MAL code	: 0-1

2.3. Other hazards

PBT: not relevant – no registration required
vPvB: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	(CAS-No.) 111-76-2 (EC-No.) 203-905-0 (EC Index-No.) 603-014-00-0	1 – 10	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Irrit. 2, H315

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Allow affected person to breathe fresh air. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: After contact with skin, first remove product with a dry cloth and then wash the skin with plenty of water.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with (lukewarm) water. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Call a POISON CENTER/doctor if you feel unwell.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO ₂). Water spray if puddle cannot expand.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: On burning: formation of small quantities of nitrous vapours, carbon monoxide - carbon dioxide.
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5.3. Advice for firefighters

Protection during firefighting	: Approved respirator. Wear gloves according to EN374 resistant to the solvent(s) in use. EN 14605. Wear suitable protective clothing. EN 136. EN 137.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: 8.2. Wear suitable protective clothing. EN 14605. EN 13034.
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6.1.2. For emergency responders

Protective equipment	: 8.2.
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6.2. Environmental precautions

Contain released product, pump into suitable containers. Plug the leak, cut off the supply.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Contaminated surfaces: clean (treat) with an excess of water. Wash contaminated clothing before reuse.
- Other information : Provide adequate ventilation.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Keep away from heat and direct sunlight. Keep away from any flames or sparking source. Keep good industrial hygiene. Keep container tight closed.
- Precautions for safe handling : Good ventilation of the workplace required. Avoid formation of vapours.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Protect against frost. Comply with applicable regulations.
- Storage conditions : Protect from freezing. Store in original container. Do not store near heat sources or expose to high temperatures.
- Incompatible products : Oxidizing agent.
- Storage area : Store in a well-ventilated place.
- Packaging materials : Plastic articles. Unsuitable materials. Metal articles.

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

a) Occupational exposure limit values	
EU	
2-Butoxyethanol	
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)	98 mg/m ³
Short time value (Indicative occupational exposure limit value)	50 ppm
Short time value (Indicative occupational exposure limit value)	246 mg/m ³
Belgium	
2-Butoxyethanol	
Time-weighted average exposure limit 8 h	20 ppm
Time-weighted average exposure limit 8 h	98 mg/m ³
Short time value	50 ppm
Short time value	246 mg/m ³
The Netherlands	
2-Butoxyethanol	
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)	100 mg/m ³
Short time value (Public occupational exposure limit value)	50 ppm
Short time value (Public occupational exposure limit value)	246 mg/m ³
France	
2-Butoxyéthanol	
Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	10 ppm
Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	49 mg/m ³

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The Netherlands

2-Butoxyethanol

Short time value (VRC: Valeur réglementaire contraignante)	50 ppm
Short time value (VRC: Valeur réglementaire contraignante)	246 mg/m3

Germany

2-Butoxyethanol

Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
Time-weighted average exposure limit 8 h (TRGS 900)	49 mg/m3

UK

2-Butoxyethanol

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))	123 mg/m3
Short time value (Workplace exposure limit (EH40/2005))	50 ppm
Short time value (Workplace exposure limit (EH40/2005))	246 mg/m3

USA (TLV-ACGIH)

2-Butoxyethanol

Time-weighted average exposure limit 8 h (TLV – Adopted Value)	20 ppm
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b) National biological limit values

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

Germany

2-Butoxyethanol (Butoxyessigsäure (nach Hydrolyse))

Urin: expositionsende, bzw. schichtende bei langzeitexposition: nach mehreren vorangegangenen schichten	150 mg/g Kreatinin
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UK

2-Butoxyethanol (butoxyacetic acid)

urine: end of shift	200 mg/g Creatinine (with hydrolysis)
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8.1.2 Sampling methods:

Product Name	Test	Number
2-Butoxyethanol (Alcohols IV)	NIOSH	1403
2-Butoxyethanol (Butyl Cellosolve solvent)	OSHA	83
Butoxyacetic acid	NIOSH	8316
Butyl cellosolve (Volatile Organic compounds)	NIOSH	2549
Butyl Cellosolve	OSHA	83

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

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DNEL/DMEL - Workers			
2-butoxyethanol			
Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	59 mg/m ³	
	Acute systemic effects inhalation	426 mg/m ³	
	Acute local effects inhalation	147 mg/m ³	
	Long-term systemic effects dermal	75 mg/kg bw/day	
	Acute systemic effects dermal	89 mg/kg bw/day	
	Long-term systemic effects oral	6.3 mg/kg bw/day	
	Acute systemic effects oral	26.7 mg/kg bw/day	

PNEC		
2-butoxyethanol		
Compartments	Value	Remark
Fresh water	8.8 mg/l	
Marine Water	0.88 mg/l	
Fresh Water (Intermittent releases)	26.4 mg/l	
STP	463 mg/l	
Fresh water sediment	34.6 mg/kg sediment dw	
Marine water sediment	3.46 mg/kg sediment dw	
Soil	2.33 mg/kg soil dw	
Oral	20 mg/kg food	

8.2. Exposure controls

Appropriate engineering controls:

Do not breathe gas/vapour/aerosol.

Hand protection:

Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemical resistant gloves (according to European standard EN 374 or equivalent)					

Eye protection:

None under normal conditions

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits

Device	Filter type	Condition	Standard
Self-contained breathing apparatus (SCBA)	Type A - High-boiling (>65 °C) organic compounds	Short term exposure	

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Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: light green.
Odour	: slight.
Odour threshold	: No data available
pH	: 4.65
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not self-igniting
Vapour pressure	: 20°C
Relative vapour density at 20 °C	: No data available
Relative density	: 0.99
Density	: 990 kg/m ³
Solubility	: Organic solvent:8,2%
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 20°C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : < 3 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating may cause a fire.

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Skin corrosion/irritation : Not classified
pH: 4.65

Serious eye damage/irritation : Not classified
pH: 4.65

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Acute toxicity							
2-butoxyethanol							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivlent to OECD 401	1746 mg/kg bw		Rat(male)	Experimental value	
Oral	LD50	OECD 401	1414 mg/kg bw		Guinea pig (male/female)	Experimental value	
Dermal			Category 4			Annex VI	
Dermal	LD50	OECD 402	>2000 mg/kg bw		Rat (male/female)	Experimental value	
Inhalation (vapours)	LC50		>4,26 mg/l	4 h	Rat (male/female)	Experimental value	

Conclusion : not classified for acute toxicity

Corrosion/irritation							
2-butoxyethanol							
Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405	24h	24;48;72 hours	Rabbit	Experimental value	Single treatment wit rinsing
Skin	Irritatin	EU Method B.4	4 h	24;248; 72 hours	Rabbit	Experimental value	

Conclusion : Not classified as irritating to the respiratory system Not classified as irritating to the skin Not classified as irritating to the eyes

Respiratory or skin sensitisation							
2-butoxyethanol							
Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Sin	Not sensitizing	OECD 406			Guinea pig (male/female)	Experimental value	

Conclusion : Not classified as sensitizing for inhalation Not classified as sensitizing for skin

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Specific target organ toxicity								
2-butoxyethanol								
Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Equivalent to OECD 408	<69 mg/kg bw/day		No effect	90 days (continuous)	Rat (male)	Experimental value
Oral (drinking water)	NOAEL	Equivalent to OECD 408	<82 mg/kg bw/day		No effect	90 days	Rat (female)	Experimental value
Dermal	NOAEL	Equivalent to OECD 411	<150 mg/kg bw/day		No effect	13 weeks (5 days/week)	Rat (male/female)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	< 31 ppm		No effect	14 weeks (6h/day, 5 days/week)	Rat (female)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	62,5 ppm		No effect	14 weeks (6h/day, 5 days/week)	Rat (male)	Experimental value

Conclusion : Not classified for subchronic toxicity

Mutagenicity (in vitro)					
2-butoxyethanol					
Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 417	Bacteria (S.typhimurium)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster ovary (CHO)		Experimental value	

Mutagenicity (in vivo)					
2-butoxyethanol					
Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (intraperitoneal)	Equivalent to OECD 474	3 dose(s)/24-hour interval	Mouse (male)		Experimental value

Conclusion : not classified for mutagenic or genotoxic toxicity

Carcinogenicity								
2-butoxyethanol								
Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	>125 ppm	104 weeks (6h/day, 5 days/week)	Rat (male/female)	No carcinogenic effect		Experimental value

Conclusion : not classified for carcinogenicity

Reproductive toxicity								
2-butoxyethanol								
	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Development toxicity ((Oral(stomach tube))	NOAEC	Equivalent to OECD 414	200 mg/kg bw/day	3 days (gestation, daily)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	30 mg/kg bw/day	3 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility (Oral(drinking water))	NOAEL	Fertility Assessment	720 mg/kg bw/day	14 weeks (daily)	Mouse (male/female)	No effect		Experimental value

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Conclusion : Not classified for reprotoxic or developmental toxicity

Chronic effects from short and long-term exposure: no effects know

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term : Not classified
(acute)

Hazardous to the aquatic environment, long-term : Not classified
(chronic)

2-butoxyethanol								
	Parameter	Method	Value	Duration	Species	Test design	Fresh/ salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	1474 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	OECD202	1550 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OEC201	1840 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
	NOEC	OECD201	286 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEC	Equivalent OECD 204	>100 mg/l	21 day(s)	Danio rerio	Semi-static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity aquatic crustacea	NOEC	OECD 211	100 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	Toxicity threshold	Equivalent to DIN 38412/8	700 mg/l	16 h	Pseudomonas putida	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

2-butoxyethanol			
Biodegradation water			
Method	Value	Duration	Value determination
OECD 3018	90,4%; Carbon dioxide	28 day(s)	Experimental value
Phototransformation air (DT50 air)			
Method	Value	Conc. QH-radicals	Value determination
AOPWIN v1.9	5.459 h	1.5E6/cm3	QSAR

12.3. Bioaccumulative potential

Log know

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

2-butoxyethanol					
BCF fishes					
Parameter	Method	Value	Duratioin	Species	Value determination
					Data waiving
Log Kow					
Method	Remark	Value	Temperature	Value determination	
BASF Test		0,81	25°C	Experimental value	

Conclusion: Does not contain bioaccumulative component(s)

12.4. Mobility in soil

2-butoxyethanol						
(log)Koc						
Parameter	Method		Value		Value determination	
Log Koc	SRC PCKOCWIN v2.0		0.51 – 0.882		Calculated value	
Percent distribution						
Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	0,31%	0%	0,01%	0,59%	99,09%	QSAR

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

12.5. Results of PBT and vPvB assessment

Dust control	
PBT: not relevant – no registration required	
vPvB: not relevant – no registration required	

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Disposal must be done according to official regulations. Clean using water and a detergent.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN
14.1. UN number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.5. Environmental hazards

Not applicable

Not applicable

Not applicable

Not applicable

No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : < 3 %

15.1.2. National regulations

Netherlands

Waterbezwaarlijkheid : 11 - Weinig schadelijk voor in het water levende organismen

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Borstvoeding

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Ontwikkeling

Denmark

Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road

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IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
DNEL	Derived-No Effect Level
PNEC	Predicted No-Effect Concentration
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
EUH210	Safety data sheet available on request.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.