

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : ALUSTAR 200
Revision date : 17.06.2020
Print date : 18.06.2020

Version (Revision) : 5.2.1 (5.2.0)

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

1.1 Product identifier

ALUSTAR 200

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

Relevant identified uses

PC 35 - Washing and cleaning products

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Bio-Circle Surface Technology GmbH

Street : Berensweg 200

Postal code/city : 33334 Gütersloh

Telephone : +49 5241 9443 0

Telefax : +49 5241 9443 44

Information contact : labor@bio-circle.de

1.4 Emergency telephone number

+49 5241 9443 51 during normal office hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.

Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.

2.2 Label elements

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

Hazard pictograms



Corrosion (GHS05)

Signal word

Danger

Hazard components for labelling

DISODIUM METASILICATE ; CAS No. : 6834-92-0

Hazard statements

H318 Causes serious eye damage.

H315 Causes skin irritation.

Precautionary statements

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

P310 Immediately call a POISON CENTER/doctor/....

P302+P352 IF ON SKIN: Wash with plenty of water/....

P332+P313 If skin irritation occurs: Get medical advice/attention.

2.3 Other hazards

None

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

2-(2-BUTOXYETHOXY)ETHANOL ; REACH No. : 01-2119475104-44-XXXX ; EC No. : 203-961-6; CAS No. : 112-34-5

Weight fraction : $\geq 1 - < 5 \%$

Classification 1272/2008 [CLP] : Eye Irrit. 2 ; H319

Substance with a common (EC) occupational exposure limit value.

ALCOHOLS, C10-C12, ETHOXYLATED, PROPOXYLATED ; REACH No. : (Polymer) ; CAS No. : 68154-97-2

Weight fraction : $\geq 1 - < 5 \%$

Classification 1272/2008 [CLP] : Eye Irrit. 2 ; H319

DISODIUM METASILICATE ; REACH No. : 01-2119449811-37-XXXX ; EC No. : 229-912-9; CAS No. : 6834-92-0

Weight fraction : $\geq 1 - < 3 \%$

Classification 1272/2008 [CLP] : Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 STOT SE 3 ; H335

POTASSIUM CUMENESULFONATE ; REACH No. : 01-2119489427-24-XXXX ; EC No. : 629-764-9; CAS No. : 164524-02-1

Weight fraction : $\geq 1 - < 5 \%$

Classification 1272/2008 [CLP] : Eye Irrit. 2 ; H319

SODIUM CUMENESULPHONATE ; REACH No. : 01-2119489411-37-XXXX ; EC No. : 239-854-6; CAS No. : 15763-76-5

Weight fraction : $\geq 1 - < 5 \%$

Classification 1272/2008 [CLP] : Eye Irrit. 2 ; H319

2-Phosphonobutane-1,2,4-tricarboxylic acid ; REACH No. : 01-2119436643-39-XXXX ; EC No. : 253-733-5; CAS No. : 37971-36-1

Weight fraction : $\geq 1 - < 5 \%$

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Eye Irrit. 2 ; H319

ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; REACH No. : 01-0000016977-53-XXXX ; CAS No. : 164462-16-2

Weight fraction : $\geq 1 - < 5 \%$

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290

POTASSIUM HYDROXIDE ; REACH No. : 01-2119487136-33-XXXX ; EC No. : 215-181-3; CAS No. : 1310-58-3

Weight fraction : $\geq 0,5 - < 1 \%$

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1A ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302

Specific Conc. Limits : Skin Corr. 1A ; H314: C $\geq 5 \%$ • Eye Dam. 1 ; H318: C $\geq 2 \%$ • Skin Corr. 1B ; H314: C $\geq 2 \%$ • Skin Corr. 1C ; H314: C $\geq 2 \%$ • Eye Irrit. 2 ; H319: C $\geq 0,5 \%$ • Skin Irrit. 2 ; H315: C $\geq 0,5 \%$

Additional information

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

Following inhalation

Remove casualty to fresh air and keep warm and at rest.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Rub greasy ointment into the skin.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

After ingestion

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Rinse mouth thoroughly with water. Let 1 glass of water be drunken in little sips (dilution effect). Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation. Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Extinguishing powder Carbon dioxide (CO₂) Sand Nitrogen Extinguishing blanket

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated: Carbon monoxide , Carbon dioxide (CO₂)

5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Special danger of slipping by leaking/spilling product.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

Clear spills immediately. Wipe up with absorbent material (eg. cloth, fleece). Wash with plenty of water. Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep container tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Keep/Store only in original container. Protect against Frost

Hints on joint storage

Storage class (TRGS 510) : 8B

7.3 Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

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8.1 Control parameters

Occupational exposure limit values

2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5

Limit value type (country of origin) : TRGS 900 (D)
Limit value : 10 ppm / 67 mg/m³
Peak limitation : 1,5(l)
Remark : Y
Version : 29.03.2019

Limit value type (country of origin) : STEL (EC)
Limit value : 15 ppm / 101,2 mg/m³
Version : 20.06.2019

Limit value type (country of origin) : TWA (EC)
Limit value : 10 ppm / 67,5 mg/m³
Version : 20.06.2019

DNEL-/PNEC-values

DNEL/DMEL

Limit value type : DNEL worker (local) (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 67,5 mg/m³

Limit value type : DNEL worker (local) (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 101,2 mg/m³

Limit value type : DNEL worker (systemic) (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 67,5 mg/m³

Limit value type : DNEL worker (systemic) (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 20 mg/kg

Limit value type : DNEL worker (systemic) (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 6,22 mg/m³

Limit value type : DNEL worker (systemic) (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 1,49 mg/kg

Limit value type : DNEL worker (systemic) (POTASSIUM CUMENESULFONATE ; CAS No. : 164524-02-1)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 53,6 mg/m³

Limit value type : DNEL worker (systemic) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 53,6 mg/m³

Limit value type : DNEL worker (systemic) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 7,6 mg/kg

Limit value type : DNEL worker (systemic) (POTASSIUM CUMENESULFONATE ; CAS No. : 164524-02-1)

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Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 7,6 mg/kg
Limit value type : DNEL worker (local) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 40 mg/m³
Limit value type : DNEL worker (local) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 4 mg/m³
Limit value type : DNEL worker (systemic) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 40 mg/m³
Limit value type : DNEL worker (systemic) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 40 mg/m³
Limit value type : DNEL worker (local) (POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3)

Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 1 mg/m³
Limit value type : DNEL worker (systemic) (POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3)

Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 1 mg/m³

PNEC
Limit value type : PNEC (Aquatic, freshwater) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Exposure route : Water (Including sewage plant)
Limit value : 2 mg/l
Limit value type : PNEC (Aquatic, marine water) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Exposure route : Water (Including sewage plant)
Limit value : 0,2 mg/l
Limit value type : PNEC (Sediment, freshwater) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Limit value : 24 mg/kg
Limit value type : PNEC Soil, Freshwater (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Exposure route : Soil
Limit value : 2,5 mg/kg
Limit value type : PNEC (Sewage treatment plant) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)

Exposure route : Water (Including sewage plant)
Limit value : 100 mg/l

8.2 Exposure controls

Personal protection equipment

Eye/face protection

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Wear suitable safety goggles in case of splash.

Suitable eye protection
EN 166.

Skin protection

Hand protection



Wear protective gloves in case of longer lasting skin contact.

Suitable gloves type : EN 374.
Suitable material : NBR (Nitrile rubber)
Breakthrough time (maximum wearing time) : 480 min.
Thickness of the glove material : 0.4 mm

Remark : The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection



Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protection apparatus
Combination filtering device (EN 14387)
Type : A

Remark

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

General information

Do not put any product-impregnated cleaning rags into your trouser pockets. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. P362+P364 - Take off contaminated clothing and wash it before reuse. P264 - Wash hands thoroughly after handling.

8.3 Additional information

No tests have been performed. Selection made for preparations according to the best available knowledge and information on ingredients. In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid

Colour : colourless

Odour

characteristic

Safety characteristics

Initial boiling point and boiling range (1013 hPa) approx. 100 °C

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:				
Flash point :		not applicable		
Lower explosion limit :		not relevant		
Upper explosion limit :		not relevant		
Vapour pressure :	(50 °C)	not applicable		
Density :	(20 °C)	1,05	g/cm ³	
Solvent separation test :	(20 °C)	not applicable		
pH :		12,7		
Flow time :	(20 °C)	not applicable		DIN-cup 4 mm
Maximum VOC content (EC) :		0	Wt %	
Maximum VOC content (Switzerland) :	<	3	Wt %	

9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

Exothermic reaction with: Acid

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

No known hazardous decomposition products.
Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Parameter :	LD50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route :	Oral
Species :	Mouse
Effective dose :	5530 mg/kg
Method :	OECD 401
Parameter :	LD50 (ALCOHOLS, C10-C12, ETHOXYLATED, PROPOXYLATED ; CAS No. : 68154-97-2)
Exposure route :	Oral
Species :	Rat
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Exposure route :	Oral
Species :	Mouse
Effective dose :	770 - 820 mg/kg
Parameter :	LD50 (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Exposure route :	Oral
Species :	Rat

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Effective dose : 1152 - 1349 mg/kg
Parameter : LD50 (POTASSIUM CUMENESULFONATE ; CAS No. : 164524-02-1)
Exposure route : Oral
Species : Rat
Effective dose : > 2000 mg/kg
Parameter : LD50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route : Oral
Species : Rat
Effective dose : > 2000 mg/kg
Parameter : LD50 (2-Phosphonobutane-1,2,4-tricarboxylic acid ; CAS No. : 37971-36-1)
Exposure route : Oral
Species : Rat
Effective dose : > 6500 mg/kg
Parameter : LD50 (POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3)
Exposure route : Oral
Species : Rat
Effective dose : 365 mg/kg
Method : OECD 425

Acute dermal toxicity

Parameter : LD50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route : Dermal
Species : Rabbit
Effective dose : 2764 mg/kg
Method : OECD 402
Parameter : LD50 (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Exposure route : Dermal
Species : Rat
Effective dose : > 5000 mg/kg
Parameter : LD50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route : Dermal
Species : Rat
Effective dose : > 2000 mg/kg
Parameter : LD50 (2-Phosphonobutane-1,2,4-tricarboxylic acid ; CAS No. : 37971-36-1)
Exposure route : Dermal
Species : Rat
Effective dose : > 4000 mg/kg

Acute inhalation toxicity

Parameter : LC50 (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Exposure route : Inhalation
Species : Rat
Effective dose : > 2,06 mg/l
Exposure time : 4 h
Parameter : LC50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route : Inhalation
Species : Rat
Effective dose : > 5 mg/l
Exposure time : 4 h

Corrosion

Skin corrosion/irritation

No further relevant information available.

Acid-/Alkali reserve (buffer capacity for mixtures with extreme pH values)

The mixture has a low buffer capacity (Acid/Alkaline reserve).

Serious eye damage/eye irritation

Parameter : Serious eye damage/eye irritation (2-Phosphonobutane-1,2,4-tricarboxylic acid ; CAS No. : 37971-36-1)

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Species : Rabbit
Result : Oedema.
Method : OECD 405

No further relevant information available.

Respiratory or skin sensitisation

Skin sensitisation

No further relevant information available.

Sensitisation to the respiratory tract

No further relevant information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No further relevant information available.

Germ cell mutagenicity

No further relevant information available.

Reproductive toxicity

No further relevant information available.

STOT-single exposure

No further relevant information available.

STOT-repeated exposure

No further relevant information available.

Aspiration hazard

No further relevant information available.

11.2 Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

11.3 Other adverse effects

Has degreasing effect on the skin. Frequently or prolonged contact with skin may cause dermal irritation.

11.4 Additional information

Preparation not tested. The statement is derived from the properties of the single components.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	LC50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species :	Lepomis macrochirus (Bluegill)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	1300 mg/l
Exposure time :	96 h
Method :	OECD 203
Parameter :	Acute (short-term) fish toxicity (ALCOHOLS, C10-C12, ETHOXYLATED, PROPOXYLATED ; CAS No. : 68154-97-2)
Species :	Brachydanio rerio (zebra-fish)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	> 1 - 10 mg/l
Exposure time :	96 h
Method :	OECD 203
Parameter :	LC50 (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Species :	Fish
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	2320 mg/l
Exposure time :	96 h

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Parameter : LC50 (POTASSIUM CUMENESULFONATE ; CAS No. : 164524-02-1)
Species : Cyprinus carpio (Common Carp)
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : > 100 mg/l
Exposure time : 96 h
Parameter : LC50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Species : Cyprinus carpio (Common Carp)
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : > 100 mg/kg
Exposure time : 96 h
Parameter : LC50 (POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3)
Species : Fish
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : 80 mg/l
Exposure time : 96 h

Chronic (long-term) fish toxicity

Parameter : NOEC (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)
Species : Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter : Chronic (long-term) fish toxicity
Effective dose : = 100 mg/l
Exposure time : 28 D
Method : OECD 204

Acute (short-term) toxicity to crustacea

Parameter : EC50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : > 100 mg/l
Exposure time : 48 h
Method : OECD 202
Parameter : EC50 (ALCOHOLS, C10-C12, ETHOXYLATED, PROPOXYLATED ; CAS No. : 68154-97-2)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : > 1 - 10 mg/l
Exposure time : 48 h
Method : OECD 202
Parameter : EC50 (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : 1700 mg/l
Exposure time : 48 h
Method : OECD 202
Parameter : EC50 (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Species : Scenedesmus subspicatus
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : 207 mg/l
Exposure time : 72 h
Method : DIN 38412 / part 9
Parameter : EC50 (POTASSIUM CUMENESULFONATE ; CAS No. : 164524-02-1)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : > 100 mg/l
Exposure time : 48 h
Parameter : EC50 (2-Phosphonobutane-1,2,4-tricarboxylic acid ; CAS No. : 37971-36-1)
Species : Daphnia magna (Big water flea)

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Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : > 1071 mg/l
Exposure time : 48 h
Method : OECD 202

Chronic (long-term) toxicity to crustacea

Parameter : NOEC (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; CAS No. : 164462-16-2)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Chronic (long-term) daphnia toxicity
Effective dose : >= 100 mg/l
Exposure time : 21 D
Method : Regulation (EC) No. 440/2008, Annex, C.20

Acute (short-term) toxicity to aquatic algae and cyanobacteria

Parameter : EC50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species : Scenedesmus subspicatus
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : > 100 mg/l
Exposure time : 48 h
Method : OECD 201
Parameter : ErC50 (ALCOHOLS, C10-C12, ETHOXYLATED, PROPOXYLATED ; CAS No. : 68154-97-2)
Species : Selenastrum capricornutum
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : > 1 - 10 mg/l
Exposure time : 72 h
Parameter : EC50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : > 100 mg/l
Exposure time : 48 h
Parameter : EC50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Species : Desmodesmus subspicatus
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : > 100 mg/l
Exposure time : 72 h
Parameter : EC50 (POTASSIUM CUMENESULFONATE ; CAS No. : 164524-02-1)
Species : Desmodesmus subspicatus
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : > 100 mg/l
Exposure time : 72 h

Toxicity to microorganisms

Parameter : EC10 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species : Bacteria toxicity
Effective dose : > 1995 mg/l
Exposure time : 30 min
Parameter : EC50 (DISODIUM METASILICATE ; CAS No. : 6834-92-0)
Species : Bacteria toxicity
Effective dose : > 100 mg/l
Exposure time : 3 h
Parameter : EC50 (POTASSIUM CUMENESULFONATE ; CAS No. : 164524-02-1)
Species : Bacteria toxicity
Effective dose : > 1000 mg/l
Exposure time : 3 h
Parameter : EC50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Species : Bacteria toxicity
Effective dose : > 1000 mg/l

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12.2 Persistence and degradability

Biodegradation

Parameter :	Biodegradation (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Inoculum :	Biodegradation
Degradation rate :	90 - 100 %
Test duration :	14 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301E
Parameter :	Biodegradation (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Inoculum :	Biodegradation
Degradation rate :	90 - 100 %
Test duration :	8 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 302B
Parameter :	Biodegradation (ALCOHOLS, C10-C12, ETHOXYLATED, PROPOXYLATED ; CAS No. : 68154-97-2)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	> 60 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301B
Parameter :	Biodegradation (POTASSIUM CUMENESULFONATE ; CAS No. : 164524-02-1)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	99,8 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301B
Parameter :	Biodegradation (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	99,8 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301B
Parameter :	Biodegradation (2-Phosphonobutane-1,2,4-tricarboxylic acid ; CAS No. : 37971-36-1)
Inoculum :	Degree of elimination
Degradation rate :	30 - 40 %
Test duration :	28 D
Evaluation :	Not readily biodegradable (according to OECD criteria)
Method :	OECD 302A

12.3 Bioaccumulative potential

Parameter :	Partition coefficient n-octanol /water (log P O/W) (2-Phosphonobutane-1,2,4-tricarboxylic acid ; CAS No. : 37971-36-1)
	Partition coefficient n-octanol /water (log P O/W)
Value :	1,36
Method :	Partition coefficient n-octanol /water (log P O/W)

No indication of bioaccumulation potential.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects

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No information available.

12.7 Additional ecotoxicological information

After neutralisation, reduction in toxic effects is observed.

SECTION 13: Disposal considerations

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. List of proposed waste codes/waste designations in accordance with EWC

13.1 Waste treatment methods

Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

20 01 29* - detergents containing dangerous substances.

Waste code packaging

15 01 02 - plastic packaging.

Waste treatment options

Appropriate disposal / Package

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Handle contaminated packages in the same way as the substance itself.

13.2 Additional information

These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use.

SECTION 14: Transport information

14.1 UN number

No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4 Packing group

No dangerous good in sense of these transport regulations.

14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

14.6 Special precautions for user

None

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

not relevant

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no. : 3

Restrictions of occupation

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing

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mothers.

Other regulations (EU)

Labelling for contents according to regulation (EC) No. 648/2004

- < 5 % anionic surfactants
- < 5 % non-ionic surfactants
- < 5 % phosphonates

National regulations

AT: Labelling according to Austrian regulations (Chemikaliengesetz/ChemV).

CH: Chemikalienverordnung (ChemV) and Chemikalien-Risikoreduktions-Verordnung (Chem RRV) are complied.

Water hazard class (WGK)

Classification according to AwSV - Class : 1 (Slightly hazardous to water)

15.2 Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

02. Classification of the substance or mixture

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (Europäisches Übereinkommen über die Beförderung gefährlicher Güter auf der Straße)

AOX: adsorbierbare organisch gebundene Halogene

AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen

CAS: Chemical Abstracts Service (Unterabteilung der American Chemical Society)

CLP: Verordnung (EG) Nr. 1272/2008 über die Einstufung, Kennzeichnung und Verpackung von Stoffen und Gemischen (Classification Labelling and Packaging)

EAK / AVV: europäischer Abfallartenkatalog / Abfallverzeichnis-Verordnung

ECHA: Europäische Chemikalienagentur (European Chemicals Agency)

EINECS: : Altstoffverzeichnis (European Inventory of Existing Commercial Chemical Substances)

GHS: Global harmonisiertes System zur Einstufung und Kennzeichnung von Chemikalien (Globally Harmonized System of Classification and Labelling of Chemicals)

IATA: Internationale Luftverkehrs-Vereinigung (International Air Transport Association)

ICAO: Internationale Zivilluftfahrtorganisation (International Civil Aviation Organization)

IMDG: Gefahrgutkennzeichnung für gefährliche Güter im Seeschiffverkehr (International Maritime Code for Dangerous Goods)

RID: Regelung zur internationalen Beförderung gefährlicher Güter im Schienenverkehr (Règlement concernant le transport international ferroviaire de marchandises dangereuses)

TRGS: Technische Regel für den Umgang mit Gefahrstoffen

VbF: Verordnung über brennbare Flüssigkeiten

VOC: flüchtige organische Verbindung (volatile organic compound)

VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe

WGK: Wassergefährdungsklasse

16.3 Key literature references and sources for data

DGUV: GESTIS-Stoffdatenbank

ECHA: Classification And Labelling Inventory

ECHA: Pre-registered Substances

ECHA: Registered Substances

EC_Safety Data Sheet of Suppliers

ESIS: European Chemical Substances Information System

GDL: Gefahrstoffdatenbank der Länder

UBA Rigoletto: Wassergefährdende Stoffe

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council

Regulation (EC) No. 1272/2008 of the European Parliament and of the Council

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

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16.5 Relevant H- and EUH-phrases (Number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
