

Safety Data Sheet

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



Trade name : arsatec-powerclean

Revision date : 16-01-2020

Print date : 16-01-2020

Version (Revision) : 2.2.0 (2.1.0)

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

1.1 Product identifier

arsatec-powerclean

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

Relevant identified uses

Cleaner

Uses advised against

Other

1.3 Details of the supplier of the safety data sheet

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

AFC UG

Street : Kanalstrasse Nord 7

Postal code/city : D-26629 GROBEFEHN

E-mail : info@arsatec-powerclean.de

Telephone : +49 49 43 62 79 677

1.4 Emergency telephone number

+49 49 43 62 79 677

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Skin Corr. 1B ; H314 - Skin corrosion/irritation : Category 1B ; Causes severe skin burns and eye damage.

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

REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE ; CAS No. : 64-02-8

SODIUM HYDROXIDE ; CAS No. : 1310-73-2

Hazard statements

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H314 Causes severe skin burns and eye damage.

Precautionary statements

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

P312 Call a POISON CENTER/doctor/... if you feel unwell.

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

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

2.3 Other hazards

None.

2.4 Additional information

See section 12 for results of PBT and vPvB assessment.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID ; REACH registration No. : 01-2119487973-19 ; EC No. : 931-291-0

Weight fraction : $\geq 3 - < 10 \%$

Classification 1272/2008 [CLP] : Eye Dam. 1 ; H318

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE ; REACH registration No. : 01-2119486762-27 ; EC No. : 200-573-9 ; CAS No. : 64-02-8

Weight fraction : $\geq 3 - < 10 \%$

Classification 1272/2008 [CLP] : Eye Dam. 1 ; H318 Acute Tox. 4 ; H302

SODIUM HYDROXIDE ; REACH registration No. : 01-2119457892-27 ; EC No. : 215-185-5 ; CAS No. : 1310-73-2

Weight fraction : $\geq 2,5 - < 5 \%$

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

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

Weight fraction : $\geq 2,5 - < 10 \%$

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

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH

None.

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH

None.

Additional information

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

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

Amphoteric surfactants < 5 %

EDTA and salts thereof < 5 %

Non-ionic surfactants < 5 %

Anionic surfactants < 5 %

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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.

Following inhalation

Provide fresh air.

In case of skin contact

Wash immediately with: water and soap. Take off contaminated clothing.

After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. Call a physician immediately.

After ingestion

Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.

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 mist. Foam. Extinguishing powder. Carbon dioxide.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

None known.

5.3 Advice for firefighters

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

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Water.

6.4 Reference to other sections

See protective measures in section 7 and 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Wear personal protection equipment (see section 8). Handle and open container with care.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place.

Packaging materials

Keep/Store only in original container.

Hints on joint storage

Storage class (TRGS 510) : 8B

Further information on storage conditions

Recommended storage temperature : 5 - 30 °C.

Protect against : Frost.

7.3 Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type :	DNEL Consumer (systemic) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	3,85 mg/kg bw/day
Limit value type :	DNEL Consumer (systemic) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	4,06 mg/m ³
Limit value type :	DNEL Consumer (systemic) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route :	Oral
Exposure frequency :	Long-term (repeated)
Limit value :	0,39 mg/kg bw/day
Limit value type :	DNEL Worker (systemic) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	6,42 mg/kg bw/day

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Limit value type :	DNEL Worker (systemic) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	4,5 mg/m ³
Limit value type :	DNEL Worker (systemic) (TETRASODIUM ETHYLENE DIAMINE TETRAACETATE ; CAS No. : 64-02-8)
Exposure route :	Inhalation
Exposure frequency :	Short-term (acute)
Limit value :	2,5 mg/m ³
Limit value type :	DNEL Consumer (local) (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	1 mg/m ³
Limit value type :	DNEL Worker (local) (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	1 mg/m ³
Limit value type :	DNEL Consumer (systemic) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route :	Oral
Exposure frequency :	Long-term (repeated)
Limit value :	3,8 mg/kg/day
Limit value type :	DNEL Consumer (systemic) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	13,2 mg/m ³
Limit value type :	DNEL Consumer (systemic) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	3,8 mg/kg/day
Limit value type :	DNEL Worker (systemic) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	7,6 mg/kg/day
Limit value type :	DNEL Worker (systemic) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	53,6 mg/m ³

PNEC

Limit value type :	PNEC (Aquatic, freshwater) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Limit value :	0,0053 mg/l
Limit value type :	PNEC (Aquatic, intermittent release) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Limit value :	0,053 mg/l
Limit value type :	PNEC (Aquatic, marine water) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Limit value :	0,00053 mg/l
Limit value type :	PNEC (Sediment, freshwater) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Limit value :	0,0208 mg/kg
Limit value type :	PNEC (Sediment, marine water) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Limit value :	0,00208 mg/kg
Limit value type :	PNEC (Soil) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Limit value :	1,04 µg/kg

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Limit value type :	PNEC (Sewage treatment plant) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Limit value :	6,6 mg/l
Limit value type :	PNEC (Aquatic, freshwater) (TETRASODIUM ETHYLENE DIAMINE TETRAACETATE ; CAS No. : 64-02-8)
Limit value :	2,2 mg/l
Limit value type :	PNEC (Aquatic, intermittent release) (TETRASODIUM ETHYLENE DIAMINE TETRAACETATE ; CAS No. : 64-02-8)
Limit value :	1,2 mg/l
Limit value type :	PNEC (Aquatic, marine water) (TETRASODIUM ETHYLENE DIAMINE TETRAACETATE ; CAS No. : 64-02-8)
Limit value :	0,22 mg/l
Limit value type :	PNEC (Soil) (TETRASODIUM ETHYLENE DIAMINE TETRAACETATE ; CAS No. : 64-02-8)
Limit value :	0,72 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (TETRASODIUM ETHYLENE DIAMINE TETRAACETATE ; CAS No. : 64-02-8)
Limit value :	43 mg/l
Limit value type :	PNEC (Aquatic, freshwater) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Limit value :	0,23 mg/l
Limit value type :	PNEC (Aquatic, intermittent release) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Limit value :	2,3 mg/l
Limit value type :	PNEC (Sewage treatment plant) (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Limit value :	100 mg/l

8.2 Exposure controls

Appropriate engineering controls

See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Wear solely goggles.

Suitable eye protection

Use eye protection according to EN 166, designed to protect against liquid splashes.

Skin protection

Hand protection

Use impermeable protective gloves.

By short-term hand contact : Disposable gloves.

By long-term hand contact : Wear suitable gloves tested to EN 374.

Suitable material : PVC. Chloroprene rubber. Nitrile rubber. Fluoro rubber.

Breakthrough time (maximum wearing time) : > 480 minutes.

Thickness of the glove material : > 0.5 mm.

Body protection

Wear suitable working clothes.

Respiratory protection

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust, aerosol or mist formation.

General health and safety measures

Avoid contact with skin, eyes and clothes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Colour : light yellow

Odour : characteristic

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Safety relevant basis data

Physical state :			clear liquid
Melting point/melting range :		<=	0 °C
Initial boiling point and boiling range :	(1013 hPa)	>=	100 °C
Decomposition temperature :			above boiling point
Flash point :			no data available
Auto-ignition temperature :			no data available
Flammability (solid, gas) :			no data available
Oxidising liquids :			not oxidising
Lower explosion limit :			not applicable
Upper explosion limit :			not applicable
Explosive properties :			none
Vapour Pressure :	(20 °C / water)	±	23 hPa
Evaporation rate :			no data available
Density :	(20 °C)	±	1,1 g/cm ³
Water solubility :	(20 °C)		miscible
pH :		±	10
Partition coefficient (n-octanol/water) :			no data available
Viscosity :	(20 °C)	<	1000 mPa.s
Odour threshold :			no data available
Relative vapour density :	(20 °C)		no data available

9.2 Other information

This MSDS contains just information relating to safety and does not replace any product information or product specification.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

Frost.

10.5 Incompatible materials

Acids. Oxidising agents. Metals.

10.6 Hazardous decomposition products

Under efficient and purposive use there are no hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter :	LD50 (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route :	Oral
Species :	Rat

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Effective dose : > 5000 mg/kg
Parameter : LD50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route : Oral
Species : Rat
Effective dose : 7200 mg/kg

Acute dermal toxicity

Parameter : LD50 (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route : Dermal
Species : Rat
Effective dose : 2612 mg/kg
Parameter : LD50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Exposure route : Dermal
Species : Rat
Effective dose : 2000 mg/kg

Irritant and corrosive effects

Primary irritation to the skin

Causes severe burns.

Irritation to eyes

Danger of very serious irreversible effects.

Irritation to respiratory tract

Not irritating to respiratory system.

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

Parameter : LOAEL(C) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route : Oral
Species : Rat
Effective dose : 185 mg/kg
Exposure time : 28 day(s)
Method : OECD 407
Parameter : NOAEL(C) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route : Oral
Species : Rat
Effective dose : 92,5 mg/kg
Exposure time : 28 day(s)
Method : OECD 407

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No indication of human carcinogenicity.

Germ cell mutagenicity

No indications of human germ cell mutagenicity exist.

In vitro mutagenicity

Parameter : In vitro mutagenicity (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route : Genotoxicity
Species : Mouse
Test result : Negative.
Method : OECD 476

Reproductive toxicity

No indications of human reproductive toxicity exist.

Overall Assessment on CMR properties

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This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

STOT-single exposure

STOT SE 3

Parameter :	NOAEL(C) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route :	Oral
Species :	Rat
Effective dose :	92,5 mg/kg
Exposure time :	28 day(s)
Method :	OECD 407
Parameter :	LOAEL(C) (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Exposure route :	Oral
Species :	Rat
Effective dose :	185 mg/kg
Exposure time :	28 day(s)
Method :	OECD 407

SECTION 12: Ecological information

12.1 Toxicity

No toxic effects are known for this product.

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	LC50 (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Species :	Oncorhynchus mykiss (Rainbow trout)
Effective dose :	5,3 mg/l
Exposure time :	96 h
Method :	OECD 203
Parameter :	LC50 (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Species :	Brachydanio rerio (zebra-fish)
Effective dose :	8,5 mg/l
Exposure time :	96 h
Method :	OECD 203
Parameter :	LC50 (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)
Effective dose :	35 - 189 mg/l
Exposure time :	96 h
Parameter :	LC50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Effective dose :	1000 mg/l

Acute (short-term) daphnia toxicity

Parameter :	EC50 (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Species :	Daphnia magna (Big water flea)
Effective dose :	2,5 mg/l
Exposure time :	48 h
Method :	OECD 202
Parameter :	EC50 (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)
Species :	Ceriodaphnia spec
Effective dose :	40,4 mg/l
Exposure time :	48 h
Parameter :	EC50 (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Species :	Daphnia pulex (water flea)
Effective dose :	1000 mg/l

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Acute (short-term) algae toxicity

Parameter :	EC50 (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Species :	Pseudokirchneriella subcapitata
Effective dose :	16,9 mg/l
Exposure time :	72 h
Method :	EU-Method C.3
Parameter :	EC50 (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Species :	Desmodesmus subspicatus
Effective dose :	30 mg/l
Exposure time :	72 h
Method :	OECD 201

Bacteria toxicity

Parameter :	NOEC (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Species :	Pseudomonas putida
Effective dose :	12,7 g/l
Exposure time :	3 h
Method :	DIN 38412 / part 8

12.2 Persistence and degradability

The surfactants contained in this mixture comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

Biodegradation

Parameter :	Biodegradation (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Evaluation parameter :	Geactiveerd slib
Degradation rate :	79 %
Test duration :	28 day(s)
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301F
Parameter :	Biodegradation (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Evaluation parameter :	Anaerobic
Degradation rate :	100 %
Test duration :	28 day(s)
Method :	OECD 311
Parameter :	COD-decrease (REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C7-C17 ODD-NUMBERED, C17-UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND CHLOROACETIC ACID)
Degradation rate :	992 g/l
Method :	DIN 38409 T.41
Parameter :	Biodegradation (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)
Degradation rate :	< 70 %
Test duration :	28 day(s)
Parameter :	Biodegradation (SODIUM CUMENESULPHONATE ; CAS No. : 15763-76-5)
Inoculum :	Degree of elimination
Degradation rate :	> 90 %
Test duration :	28 day(s)
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301E

12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

12.4 Mobility in soil

If product enters soil, it will be mobile and may contaminate groundwater.

12.5 Results of PBT and vPvB assessment

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This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

None known.

12.7 Additional ecotoxicological information

None.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of waste according to applicable legislation. Contaminated packages must be completely emptied and can be re-used following proper cleaning.

SECTION 14: Transport information

14.1 UN number

UN 1824

14.2 UN proper shipping name

Land transport (ADR/RID)

SODIUM HYDROXIDE SOLUTION

Sea transport (IMDG)

SODIUM HYDROXIDE SOLUTION

Air transport (ICAO-TI / IATA-DGR)

SODIUM HYDROXIDE SOLUTION

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 8
Classification code : C5
Hazard identification number (Kemler No.) : 80
Tunnel restriction code : E
Special provisions : LQ 5 I
Hazard label(s) : 8

Sea transport (IMDG)

Class(es) : 8
EmS-No. : F-A / S-B
Special provisions : LQ 5 I · IMDG-Code segregation group 18 - Alkalis
Hazard label(s) : 8

Air transport (ICAO-TI / IATA-DGR)

Class(es) : 8
Hazard label(s) : 8

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : No

Sea transport (IMDG) : No

Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

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None.

SECTION 15: Regulatory information

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

EU legislation

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use

Restrictions on use

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

National regulations

Water hazard class (WGK)

According self classification - Class : 1 (Slightly hazardous to water)

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

16.1 Indication of changes

Section 3: Composition / information on ingredients. Section 8: Exposure controls/personal protection. Section 11: Toxicological information. Section 12: Ecological information. Section 15: Regulatory information.

16.2 Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

CLP: Classification Labelling Packaging

CMR: Carcinogenic, Mutagenic, toxic for Reproduction

DNEL: Derived No-Effect Level

EC: Effective Concentration

EC: European Commission

EINECS: European INventory of Existing Commercial chemical Substances

EU: European Union

GHS: Globally Harmonised System

IATA-DGR: Dangerous Goods Regulations by the 'International Air Transport Association'

ICAO-IT: Technical Instructions by the 'International Civil Aviation Organization'

IMGD: International Maritime Code for Dangerous Goods

LC: Lethal Concentration

LD: Lethal Dose

MAC: Maximum Allowable Concentration

NOEC: No Observed Effect Concentration

NOEL: No Observed Effect Level

OECD: Organisation for Economic Cooperation and Development

PNEC: Predicted No-Effect Concentration

PBT: Persistent Bioaccumulative Toxic

REACH: Registration, Evaluation and Authorisation of CHemicals

RID: Regulations concerning the International Transport of Dangerous Goods by Rail

STEL: Short-Term Exposure Limit

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STOT: Specific Target Organ Toxicity
TRGS: Technische Regeln für Gefahrstoffe
TWA: Time Weighted Average
UN: United Nations
vPvB: very Persistent very Bioaccumulative

16.3 Key literature references and sources for data

None.

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

See section 2.

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.

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.
