

Safety data sheet

RM Clean+



According to Regulation (EC) No 1907/2006

Revision: 2022-10-13

Version: 01.0 Pending Annex II review

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

1.1 Product identifier

Trade name: RM Clean+

UFI: HTVJ-E0T9-T00U-7D1P

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

Product use:

Dish wash product.

Uses advised against:

For professional use only.

Uses other than those identified are not recommended.

AISE_SWED_PW_4_1
AISE_SWED_PW_10_1

1.3 Details of the supplier of the safety data sheet

Contact details

RM GASTRO s.r.o.
Náchodská 818/16
193 00 Praha 9 - Horní Počernice
TEL: +420 281 926 604, email: info@rmgastro.cz

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)
Toxikologické Informační středisko, TEL: 224919293, 224915402

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Corr. 1A (H314)
Eye Dam. 1 (H318)
Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains sodium hydroxide (Sodium Hydroxide)

Hazard statements:

H314 - Causes severe skin burns and eye damage.
H290 - May be corrosive to metals.

Precautionary statements:

P280 - Wear protective gloves, protective clothing and eye or face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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 CENTRE, doctor or physician.

2.3 Other hazards

No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

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3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
sodium hydroxide	215-185-5	1310-73-2	01-2119457892-27	Skin Corr. 1A (H314) Met. Corr. 1 (H290)		10-20
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	423-270-5	164462-16-2	01-0000016977-53	Met. Corr. 1 (H290)		3-10
tetrasodium (1-hydroxy ethylidene)bisphosphonate	223-267-7	[1]	[1]	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)		1-3

Specific concentration limits

sodium hydroxide:

- Met. Corr. 1 (H290) >= 0.5%
- Skin Corr. 1A (H314) >= 5% > Skin Corr. 1B (H314) >= 2% > Skin Irrit. 2 (H315) >= 0.5%

alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt:

- Met. Corr. 1 (H290) >= 8%

Workplace exposure limit(s), if available, are listed in subsection 8.1.

[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

[2] Exempted: included in Annex IV of Regulation (EC) No 1907/2006.

[3] Exempted: Annex V of Regulation (EC) No 1907/2006.

[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

For the full text of the H and EUH phrases mentioned in this Section, see Section 16.

ATE, if available, are listed in section 11..

SECTION 4: First aid measures

4.1 Description of first aid measures

General Information:

If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation:

Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician.

Eye contact:

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:

No known effects or symptoms in normal use.

Skin contact:

Causes severe burns.

Eye contact:

Causes severe or permanent damage.

Ingestion:

Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

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6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up

Use neutralising agent. Absorb onto dry sand or similar inert material.

6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Measures to prevent fire and explosions:

No special precautions required.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Use only with adequate ventilation. Do not mix with other products. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging.

For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits

Air limit values, if available:

Ingredient(s)	Long term value(s)	Short term value(s)
sodium hydroxide	1 mg/m ³	2 mg/m ³

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values

Human exposure

DNEL/DMEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	-	-
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	-	85	-	17
tetrasodium (1-hydroxy ethylidene)bisphosphonate	-	-	-	2.4

DNEL/DMEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
sodium hydroxide	2 %	-	-	-
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	2000 mg/cm ² skin	2000	No data available	170
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	-	No data available	48

DNEL/DMEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
sodium hydroxide	2 %	-	-	-
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	400 mg/cm ² skin	400	No data available	25
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	-	No data available	24

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DNEL/DREL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	1	-
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	40	40	4	40
tetrasodium (1-hydroxy ethylidene)bisphosphonate	-	-	-	16.9

DNEL/DREL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	1	-
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	20	20	2	20
tetrasodium (1-hydroxy ethylidene)bisphosphonate	10	-	10	4.2

Environmental exposure

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
sodium hydroxide	-	-	-	-
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	2	0.2	1	100
tetrasodium (1-hydroxy ethylidene)bisphosphonate	0.096	0.01	-	-

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
sodium hydroxide	-	-	-	-
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	24	-	2.5	1
tetrasodium (1-hydroxy ethylidene)bisphosphonate	193	19.3	14	-

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet. If available, please refer to the product information sheet for application and handling instructions. Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:
Activities covered:

Appropriate engineering controls: If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling with automatic systems. Use tools for manual handling of product.

Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection: Safety glasses or goggles (EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

Hand protection: Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm
Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection: Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 0.2

Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: No special requirements under normal use conditions.

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REACH use scenarios considered for the diluted product:

	SWED	LCS	PROC	Duration (min)	ERC
Machine application	AISE_SWED_PW_10_1	PW	PROC 10	60	ERC11a
Automatic application in a dedicated system	AISE_SWED_PW_4_1	PW	PROC 4	480	ERC8a

Personal protective equipment

Eye / face protection:	No special requirements under normal use conditions.
Hand protection:	No special requirements under normal use conditions.
Body protection:	No special requirements under normal use conditions.
Respiratory protection:	No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Information in this section refers to the product, unless it is specifically stated that substance data is listed

Physical state: Liquid
Colour: Clear , Yellow
Odour: Not determined
Odour threshold: Not applicable
Melting point/freezing point (°C): Not determined
Initial boiling point and boiling range (°C): Not determined

Method / remark

Not relevant to classification of this product
See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sodium hydroxide	> 990	Method not given	
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	100	Method not given	1013
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

Method / remark

Flammability (solid, gas): Not flammable Not applicable to liquids

Flammability (liquid): Not flammable.

Flash point (°C): Not applicable.

Sustained combustion: The product does not sustain combustion
(UN Manual of Tests and Criteria, section 32, L.2)

Lower and upper explosion limit/flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Not relevant to classification of this product

Autoignition temperature: Not determined

Decomposition temperature: Not determined

pH: > 12 (neat)

Dilution pH: ≈ 12 (1%)

Kinematic viscosity: ≈ mPa.s (20 °C)

Solubility in / Miscibility with water: Fully miscible

ISO 4316

ISO 4316

Not relevant to classification of this product

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sodium hydroxide	1000	Method not given	20
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No data available		
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Method / remark

Not relevant to classification of this product

Vapour pressure: Not determined

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
sodium hydroxide	< 1330	Method not given	20
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No data available		
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

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Relative density: ≈ 1.26 (20 °C)
Relative vapour density: Not determined.
Particle characteristics: No data available.

OECD 109 (EU A.3)
Not relevant to classification of this product
Not applicable to liquids.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties: Not explosive. Vapours may form explosive mixtures with air. Not explosive, based on substance properties
Oxidising properties: Not oxidising. Not oxidising, based on substance properties
Corrosion to metals: Corrosive Weight of evidence

9.2.2 Other safety characteristics

No other relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

None known under normal storage and use conditions.

10.5 Incompatible materials

Reacts with acids.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture data:

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

Substance data, where relevant and available, are listed below:

Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
sodium hydroxide		No data available				Not established
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	LD ₅₀	> 2000	Rat	OECD 401 (EU B.1)		Not established
tetrasodium (1-hydroxy ethylidene)bisphosphonate	LD ₅₀	2850	Rat	OECD 401 (EU B.1)		120000

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
sodium hydroxide	LD ₅₀	1350	Rabbit	Method not given		Not established
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	LD ₅₀	> 2000	Rat	OECD 402 (EU B.3)		Not established
tetrasodium (1-hydroxy ethylidene)bisphosphonate	LD ₅₀	> 5000	Rabbit	OECD 402 (EU B.3)		Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide		No data available			

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alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	LC ₅₀	> 5	Rat	Method not given	4
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			

Acute inhalative toxicity, continued

Ingredient(s)	ATE - inhalation, dust (mg/l)	ATE - inhalation, mist (mg/l)	ATE - inhalation, vapour (mg/l)	ATE - inhalation, gas (mg/l)
sodium hydroxide	Not established	Not established	Not established	Not established
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	Not established	Not established	Not established	Not established
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	Not irritant	Rabbit	OECD 404 (EU B.4)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Mild irritant	Rabbit	OECD 404 (EU B.4)	4 hour(s)

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Irritant	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	No data available			
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No data available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium hydroxide	Not sensitising		Human repeated patch test	
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	No data available			
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No data available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 476 (HGPRT)	No evidence of genotoxicity, negative test results	OECD 474 (EU B.12)
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No evidence for mutagenicity, negative test results	draft OECD 487	No evidence of genotoxicity, negative test results	OECD 478

Carcinogenicity

Ingredient(s)	Effect
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No evidence for carcinogenicity, negative test results
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No evidence for carcinogenicity, negative test results

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
sodium hydroxide			No data				No evidence for developmental

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			available				toxicity No evidence for reproductive toxicity
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	NOAEL	Developmental toxicity	≥ 2000	Rat	OECD 421/422		No evidence for reproductive toxicity
tetrasodium (1-hydroxy ethylidene)bisphosphonate	NOAEL		112	Rat	OECD 416, (EU B.35), oral		No evidence for reproductive toxicity

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sodium hydroxide		No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt		No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate	NOAEL	41	Rat	OECD 408 (EU B.26)	90	No effects observed

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sodium hydroxide		No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt		No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sodium hydroxide		No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt		No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
sodium hydroxide			No data available					
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	Oral	NOAEL	530	Rat	OECD 453 (EU B.33)			May cause liver damage
tetrasodium (1-hydroxy ethylidene)bisphosphonate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No data available
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No data available
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Endocrine disrupting properties - Human data, if available:

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11.2.2 Other information

No other relevant information available.

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the mixture.

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	LC ₅₀	35	<i>Various species</i>	Method not given	96
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	LC ₅₀	> 200	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96
tetrasodium (1-hydroxy ethylidene)bisphosphonate	LC ₅₀	195			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	EC ₅₀	40.4	<i>Ceriodaphnia sp.</i>	Method not given	48
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	EC ₅₀	> 200	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	EC ₅₀	22	<i>Photobacterium phosphoreum</i>	Method not given	0.25
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	EC ₅₀	> 200	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium hydroxide		No data available			
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt		No data available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium hydroxide		No data available			
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	EC ₂₀	> 2000	<i>Activated sludge</i>	OECD 209	30 minute(s)
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	NOEC	≥ 200	<i>Oncorhynchus mykiss</i>	OECD 204	28 day(s)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available				

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Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	NOEC	≥ 200	<i>Daphnia magna</i>	OECD 202	21 day(s)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	NOEC	6.75	<i>Daphnia magna</i>		28 day(s)	

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt		No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available				

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	LD ₅₀	300	<i>Eisenia fetida</i>	OECD 207	14	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	EC ₅₀	1600	<i>Avena sativa</i>	OECD 208	19	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
sodium hydroxide	13 second(s)	Method not given	Rapidly photodegradable	

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
sodium hydroxide	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
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Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
sodium hydroxide					Not applicable (inorganic substance)
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt		Oxygen depletion	80 - 90 % in 28 day(s)	OECD 301F	Readily biodegradable
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Activated sludge, aerobic			Read across	Not readily biodegradable.

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
sodium hydroxide					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
sodium hydroxide					No data available

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	-4.0	Method not given	No bioaccumulation expected	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium hydroxide	No data available				
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
sodium hydroxide	No data available				Mobile in soil
alpha-alanine, N,N-bis(carboxymethyl)-, trisodium salt	No data available				Adsorption to solid soil phase is not expected
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available				

12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Endocrine disrupting properties

Endocrine disrupting properties - Environmental effects, if available:

12.7 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products:

European Waste Catalogue:

Empty packaging

Recommendation:

Suitable cleaning agents:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation. 20 01 15* - alkalines.

Dispose of observing national or local regulations. Water, if necessary with cleaning agent.

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SECTION 14: Transport information



Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN number: 1824

14.2 UN proper shipping name:

Sodium hydroxide solution
Sodium hydroxide solution

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 8

14.4 Packing group: II

14.5 Environmental hazards:

Environmentally hazardous: No
Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:

ADR

Classification code: C5
Tunnel restriction code: E
Hazard identification number: 80

IMO/IMDG

EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information

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

EU regulations:

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 648/2004 - Detergents regulation
- Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- International Maritime Dangerous Goods (IMDG) Code

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

Ingredients according to EC Detergents Regulation 648/2004

polycarboxylates 5 - 15 %
phosphonates < 5 %

Seveso - Classification: Not classified

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

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Classification procedure

The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Full text of the H and EUH phrases mentioned in section 3:

- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H402 - Harmful to aquatic life.
- H318 - Causes serious eye damage.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- DNEL - Derived No Effect Limit
- EUH - CLP Specific hazard statement
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- ATE - Acute Toxicity Estimate
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- OECD - Organisation for Economic Cooperation and Development

End of Safety Data Sheet

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