

Safety Data Sheet

According to Regulation (EC) No 1907/2006

Suma Special L4L

Revision: 2020-03-08

Version: 01.1

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

1.1 Product identifier

Trade name: Suma Special L4L

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

Identified uses: For professional use only. AISE-P202 - Dishwash product. Automatic process Uses advised against: Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet Diversey Europe Operations BV, Maarssenbroeksedijk 2, 3542DN Utrecht, The Netherlands

Contact details

Diversey Ltd Weston Favell Centre, Northampton NN3 8PD, United Kingdom Tel: 01604 405311, Fax: 01604 406809 Regulatory Email: customerservice.uk@diversey.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible) For medical or environmental emergency only: call 0800 052 0185

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

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
tetrasodium (1-hydroxy ethylidene)bisphosphonate	223-267-7	[1]	[1]	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)		3-10

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

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 effe	· ·
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

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.

oesophagus and stomach.

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.

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

Dyke to collect large liquid spills. Use neutralising agent. Absorb onto dry sand or similar inert material. Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

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. Do not mix with other products unless adviced by Diversey. 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. 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)	UK - Long term value(s)	UK - Short term value(s)
sodium hydroxide		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 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	-	-	-	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	2.4
NEL 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 %	-	-	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	48
NEL 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 %	-	-	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	24
NEL inhalatory exposure - Worker (mg/m ³)				
Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	No data available	-	1	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	16.9
NEL inhalatory exposure - Consumer (mg/m ³)				
Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	1	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	10	No data available	10	4.2
nvironmental exposure nvironmental exposure - PNEC				
Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
sodium hydroxide	-	-	-	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	0.096	0.01	No data available	No data available
nvironmental exposure - PNEC, continued				
Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
sodium hydroxide	-	-	-	-
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 <u>undiluted</u> product: Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls: Appropriate organisational 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. 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: \geq 30 min Material thickness: \geq 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 (%): 0.4

Appropriate engineering controls: Appropriate organisational controls:	No special requirements under normal use conditions. No special requirements under normal use conditions.
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, Light, Yellow Odour: Product specific Odour threshold: Not applicable pH > 11 (neat) **Dilution pH:** > 11 (0.4 %) Melting point/freezing point (°C): Not determined Initial boiling point and boiling range (°C): Not determined

ISO 4316 ISO 4316 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	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

Flammability (liquid): Not flammable. Flash point (°C): Not applicable. Sustained combustion: No (UN Manual of Tests and Criteria, section 32, L.2) Method / remark

Method / remark

Weight of evidence

Evaporation rate: Not relevant for classification of this product. Flammability (solid, gas): Not applicable to liquids Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Vapour pressure: Not determined

Substance data, vapour pressure Ingredient(s) Value Method Temperature (Pa) . (°C) sodium hydroxide < 1330 Method not given 20 tetrasodium (1-hydroxy ethylidene)bisphosphonate No data available

Vapour density: Not determined Relative density: ≈ 1.15 (20 °C) Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sodium hydroxide	1000	Method not given	20
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

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

Autoignition temperature: 99 Decomposition temperature: Not applicable. Viscosity: Not determined Explosive properties: Not explosive. Oxidising properties: Not oxidising.

9.2 Other information Surface tension (N/m): Not determined Corrosion to metals: Corrosive

Substance data, dissociation constant, if 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 Method / remark See substance data

Method / remark

OECD 109 (EU A.3)

Method / remark

Not relevant to classification of this product Weight of evidence

Not relevant to classification of this product

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium hydroxide		No data available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate	LD 50	2850	Rat	OECD 401 (EU B.1)	
Acute dermal toxicity					
Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium hydroxide	LD 50	1350	Rabbit	Method not given	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	LD 50	> 5000	Rabbit	OECD 402 (EU B.3)	
Acute inhalative toxicity					
Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide		No data available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			

Irritation and corrosivity Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
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	
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						
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	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Sensitisation by inhalation									
Ingredient(s)	Result	Species	Method	Exposure time					
sodium hydroxide	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	Result (in-vivo)	Method
		(in-vitro)		(in-vivo)
sodium hydroxide	No evidence for mutagenicity, negative	DNA repair test	No evidence for mutagenicity, negative	OECD 474 (EU
	test results	on rat	test results	B.12) OECD
		hepatocytes		475 (EU B.11)
		OECD 473		
tetrasodium (1-hydroxy	No evidence for mutagenicity, negative	draft OECD	No evidence of genotoxicity, negative	OECD 478
ethylidene)bisphosphonate	test results	487	test results	

Carcinogenicity

Ingredient(s)	Effect
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
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 available				No evidence for developmental toxicity No evidence for reproductive toxicity
tetrasodium (1-hydroxy ethylidene)bisphosphon ate			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	Species	Method	Exposure	Specific effects and organs		
		(mg/kg bw/d)			time (days)	affected		
sodium hydroxide		No data						
		available						
tetrasodium (1-hydroxy ethylidene)bisphosphonate	NOAEL	41	Rat	OECD 408 (EU	90	No effects observed		
				B.26)				
Sub-chronic dermal toxicity								
Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Specific effects and organs		

	(mg/kg bw/d)	t	ime (days)	affected
sodium hydroxide	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				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data				
		available				

Chronic toxicity

Ingredient(s)	Exposure	Endpoint	Value	Species	Method	Exposure	Specific effects and	Remark
	route		(mg/kg bw/d)			time	organs affected	
sodium hydroxide			No data					
			available					
tetrasodium (1-hydroxy			No data					
ethylidene)bisphosphon			available					
ate								

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	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.

Potential adverse health effects and symptoms

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

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	Various species	Method not given	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	Ceriodaphnia sp.	Method not given	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	Photobacteriu	Method not given	0.25
	oodian nyaroxido	2030		m	mounou not given	0.20
				phosphoreum		
	tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data			
			available		l .	

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium hydroxide		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				

quatic long-term toxicity				data ilable		
			ava	liable		
juatic long-term toxicity - fish						
Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphona	ate	No data available				
quatic long-term toxicity - crustacea						
Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphona	ate NOEC	6.75	Daphnia magna		28 day(s)	
quatic toxicity to other aquatic benthic organisms,	including sediment	-dwelling organis	sms, if availab	le:		
Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available			-	
tetrasodium (1-hydroxy ethylidene)bisphosphona	ate	No data available				
errestrial toxicity						
errestrial toxicity - soil invertebrates, including earl Ingredient(s)	Endpoint	e: Value	Species	Method	Exposure	Effects observed
nigrouen(s)	Lindpoint	(mg/kg dw soil)	opeoles	Method	time (days)	Elicets observed
		No data				
sodium hydroxide		available				
· · · · · · · · · · · · · · · · · · ·						
sodium hydroxide errestrial toxicity - plants, if available: Ingredient(s)	Endpoint	available Value (mg/kg dw	Species	Method	Exposure time (days)	Effects observed
errestrial toxicity - plants, if available:	Endpoint	Value (mg/kg dw soil) No data	Species	Method	Exposure	Effects observed
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide errestrial toxicity - birds, if available:		Value (mg/kg dw soil) No data available			Exposure time (days)	
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide	Endpoint Endpoint	Value (mg/kg dw soil) No data	Species Species	Method	Exposure time (days)	Effects observed
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide errestrial toxicity - birds, if available: Ingredient(s)		Value (mg/kg dw soil) No data available Value			Exposure time (days)	
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide errestrial toxicity - birds, if available: Ingredient(s)		available Value (mg/kg dw soil) No data available Value No data			Exposure time (days)	
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide errestrial toxicity - birds, if available: Ingredient(s) sodium hydroxide		available Value (mg/kg dw soil) No data available Value No data			Exposure time (days)	
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide errestrial toxicity - birds, if available: Ingredient(s) sodium hydroxide errestrial toxicity - beneficial insects, if available:	Endpoint	Available Value (mg/kg dw soil) No data available Value No data available Value (mg/kg dw	Species	Method	Exposure time (days) Exposure time (days)	Effects observed
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide errestrial toxicity - birds, if available: Ingredient(s) sodium hydroxide errestrial toxicity - beneficial insects, if available: Ingredient(s)	Endpoint	available Value (mg/kg dw soil) No data available Value (mg/kg dw soil) No data	Species	Method	Exposure time (days) Exposure time (days)	Effects observed
errestrial toxicity - plants, if available: Ingredient(s) sodium hydroxide errestrial toxicity - birds, if available: Ingredient(s) sodium hydroxide errestrial toxicity - beneficial insects, if available: Ingredient(s) sodium hydroxide	Endpoint	available Value (mg/kg dw soil) No data available Value (mg/kg dw soil) No data	Species	Method	Exposure time (days) Exposure time (days)	Effects observed

Biodegradation Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT 50	Method	Evaluation
sodium hydroxide					Not applicable (inorganic substance)
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Activated sludge, aerobe			Read across	Not readily biodegradable.

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
sodium hydroxide	No data available		Not relevant, does not	
			bioaccumulate	
tetrasodium (1-hydroxy	No data available			
ethylidene)bisphosphonate				
Bioconcentration factor (BCF)				

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium hydroxide	No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphon ate					

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment					
Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
sodium hydroxide	No data available				Mobile in soil
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 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:

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.

Empty packaging Recommendation: Suitable cleaning agents:

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

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
- 14.3 Transport hazard class(es):
- Transport hazard class (and subsidiary risks): 8
- 14.4 Packing group: ||
- 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

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

UFI: QCRU-204U-A00G-P3M0

Ingredients according to EC Detergents Regulation 648/2004

phosphonates

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

SDS code: MS1004420

Reason for revision:

This data sheet contains changes from the previous version in section(s):, 9, 11, 16

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.

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 Organization for Economic Cooperation and Development

End of Safety Data Sheet

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