



# Safety Data Sheet

According to Regulation (EC) No 1907/2006

## Persil Professional Biological

Revision: 2014-02-06

Version: 12

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

#### 1.1 Product identifier

**Trade name:** Persil Professional Biological

*Persil is a registered trade mark and is used under licence of Unilever*

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

##### Identified uses:

For professional use only.

AISE-P102 - Laundry detergent. Semi-automatic process

AISE-P103 - Laundry detergent. Manual process

**Uses advised against:** Uses other than those identified are not recommended

#### 1.3 Details of the supplier of the safety data sheet

Diversey Ltd

#### Contact details

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: MSDSinfoUK@sealedair.com

#### 1.4 Emergency telephone number

For medical or environmental emergency only:

call 0800 052 0185

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

The product does not meet the criteria for classification in accordance with Directive 1999/45/EC and corresponding national legislation.

#### 2.2 Label elements

#### Further indications on the label:

Rinse and dry hands after use. For prolonged contact, protection for the skin may be necessary.

Safety data sheet available for professional user on request.

#### 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	Classification (EC) 1272/2008	Notes	Weight percent
sodium carbonate	207-838-8	497-19-8	01-2119485498-19	Xi;R36	Eye Irrit. 2 (H319)		20-30
sodium dodecylbenzenesulphonate	246-680-4	25155-30-0	01-2119489428-22	Xn;R22 Xi;R38-41	Eye Dam. 1 (H318) Acute Tox. 4 (H302) Skin Irrit. 2 (H315)		10-20
sodium percarbonate	239-707-6	15630-89-4	01-2119457268-30	O;R8 Xn;R22 Xi;R41	Eye Dam. 1 (H318) Ox. Sol. 3 (H272) Acute Tox. 4 (H302)		3-10
disodium disilicate	237-623-4	13870-28-5	No data available	Xi;R37/38-41	Eye Dam. 1 (H318) STOT SE 3 (H335) Skin Irrit. 2 (H315)		3-10
citric acid monohydrate	201-069-1	5949-29-1	01-2119457026-42	Xi;R36	Eye Irrit. 2 (H319)		1-3

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alkyl alcohol ethoxylate	500-195-7	68131-39-5	No data available	Xn;R22 Xi;R41 N;R50	Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Acute Tox. 4 (H302)	1-3
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\* Polymer.

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

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.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### Inhalation

Remove from source of exposure. If discomfort persists, obtain medical attention.

#### Skin contact:

Not required under normal use. If irritation develops get medical attention. Rinse with plenty of water.

#### Eye contact:

Wash off immediately with plenty of water. Get medical attention.

#### Ingestion:

Remove material from mouth. Immediately drink 1-2 glasses of water or milk. If large amounts swallowed or symptoms develop, get medical attention.

#### 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:

Unlikely to be irritant or harmful in normal use.

#### Skin contact:

Unlikely to be irritant in normal use.

#### Eye contact:

Can cause irritation.

#### Ingestion:

Unlikely to be harmful unless excessive amount ingested.

#### Sensitisation:

No known effects.

### 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

No special measures required.

### 6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water.

### 6.3 Methods and material for containment and cleaning up

Collect mechanically.

### 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

#### Advice on safe handling:

Handle in accordance with good industrial hygiene and safety practice. Do not mix with other products unless advised by Diversey. For advice on general occupational hygiene see subsection 8.2. For environmental exposure controls see subsection 8.2. For incompatible materials see subsection 10.5.

#### Prevention of fire and explosion:

No special precautions required.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms / facilities:

In accordance with local and national regulations.

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**Combined storage in storage rooms / facilities:**

In accordance with local and national regulations. For incompatible materials see subsection 10.5.

**Basic storage conditions**

Store in original container. For conditions to avoid see subsection 10.4.

**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:

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 carbonate	No data available	No data available	No data available	No data available
sodium dodecylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium percarbonate	No data available	No data available	No data available	No data available
disodium disilicate	No data available	No data available	No data available	No data available
citric acid monohydrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

DNEL 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 carbonate	No data available	No data available	No data available	No data available
sodium dodecylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium percarbonate	12.8 mg/cm <sup>2</sup> skin	No data available	12.8 mg/cm <sup>2</sup> skin	No data available
disodium disilicate	No data available	No data available	No data available	No data available
citric acid monohydrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

DNEL 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 carbonate	No data available	No data available	No data available	No data available
sodium dodecylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium percarbonate	6.4 mg/cm <sup>2</sup> skin	No data available	6.4 mg/cm <sup>2</sup> skin	No data available
disodium disilicate	No data available	No data available	No data available	No data available
citric acid monohydrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Worker (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium carbonate	No data available	No data available	10	No data available
sodium dodecylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium percarbonate	No data available	No data available	5	No data available
disodium disilicate	No data available	No data available	No data available	No data available
citric acid monohydrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Consumer (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium carbonate	10	No data available	No data available	No data available
sodium dodecylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium percarbonate	No data available	No data available	No data available	No data available
disodium disilicate	No data available	No data available	No data available	No data available
citric acid monohydrate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

**Environmental exposure**

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Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
sodium carbonate	No data available	No data available	No data available	No data available
sodium dodecylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium percarbonate	0.035	0.035	0.035	16.24
disodium disilicate	No data available	No data available	No data available	No data available
citric acid monohydrate	0.44	0.044	No data available	1000
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
sodium carbonate	No data available	No data available	No data available	No data available
sodium dodecylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium percarbonate	No data available	No data available	No data available	No data available
disodium disilicate	No data available	No data available	No data available	No data available
citric acid monohydrate	34.6	3.46	33.1	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available

**8.2 Exposure controls****General health and safety measures**

Handle in accordance with good industrial hygiene and safety practice.

*The following information applies for the uses indicated in subsection 1.2.*

*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:*

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

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

**Personal protective equipment**

**Eye / face protection:** No special requirements under normal use conditions.

**Hand protection:** Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.

**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.

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (%):** 2

**Appropriate engineering controls:** The product is intended to be used in closed systems.

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

**Personal protective equipment**

**Eye / face protection:** No special requirements under normal use conditions.

**Hand protection:** Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.

**Body protection:** No special requirements under normal use conditions.

**Respiratory protection:** If the product is applied in a closed system, as recommended, no respiratory protection equipment will be required.

**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:** Solid  
**Colour:** White  
**Odour:** Slightly perfumed  
**Odour threshold:** Not applicable  
**pH:**  
**Dilution pH:** ≈ 11 (1%)  
**Melting point/freezing point (°C):** Not determined  
**Initial boiling point and boiling range (°C):** Not determined

**Method / remark**

Substance data, boiling point

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Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sodium carbonate	1600	Method not given	1013
sodium dodecylbenzenesulphonate	No data available		
sodium percarbonate	Product decomposes before boiling		
disodium disilicate	No data available		
citric acid monohydrate	175	Method not given	1013
alkyl alcohol ethoxylate	No data available		

## Method / remark

**Flash point (°C):** Not applicable.

**Sustained combustion:** Not determined

**Evaporation rate:** Not determined

**Flammability (solid, gas):** Not determined

**Upper/lower flammability limit (%):** Not determined

Substance data, flammability or explosive limits, if available:

## Method / remark

**Vapour pressure:** Not determined

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
sodium carbonate	Negligible		
sodium dodecylbenzenesulphonate	No data available		
sodium percarbonate	Negligible		
disodium disilicate	No data available		
citric acid monohydrate	No data available		
alkyl alcohol ethoxylate	No data available		

## Method / remark

**Vapour density:** Not determined

**Relative density:** 0.65 g/cm<sup>3</sup> (20°C)

**Solubility in / Miscibility with Water:** Soluble

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sodium carbonate	210-215	Method not given	20
sodium dodecylbenzenesulphonate	No data available		
sodium percarbonate	140	Method not given	20
disodium disilicate	No data available		
citric acid monohydrate	880	Method not given	20
alkyl alcohol ethoxylate	100	Method not given	

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

## Method / remark

**Autoignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Viscosity:** Not determined

**Explosive properties:** Not explosive.

**Oxidising properties:** Not oxidising.

### 9.2 Other information

**Surface tension (N/m):** Not determined

**Corrosion to metals**

**(according to IMDG/ADR regulation):** Not determined

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.

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**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****Mixtures**

No test data is available on the mixture

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)
sodium carbonate	LD <sub>50</sub>	2800	Rat	Method not given	
sodium dodecylbenzenesulphonate		No data available			
sodium percarbonate	LD <sub>50</sub>	1034	Rat	Method not given	
disodium disilicate		No data available			
citric acid monohydrate	LD <sub>50</sub>	5400	Mouse	OECD 401 (EU B.1)	
alkyl alcohol ethoxylate	LD <sub>50</sub>	> 300 - 2000		Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium carbonate	LD <sub>50</sub>	> 2000	Rabbit	Method not given	
sodium dodecylbenzenesulphonate		No data available			
sodium percarbonate	LD <sub>50</sub>	> 2000	Rabbit	OECD 402 (EU B.3)	
disodium disilicate		No data available			
citric acid monohydrate	LD <sub>50</sub>	> 2000	Rat	Method not given	
alkyl alcohol ethoxylate	LD <sub>50</sub>	> 2000		Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium carbonate	LC <sub>50</sub>	2.3 (dust)	Rat	OECD 403 (EU B.2)	2
sodium dodecylbenzenesulphonate		No data available			
sodium percarbonate		No data available			
disodium disilicate		No data available			
citric acid monohydrate		No data available			
alkyl alcohol ethoxylate		No data available			

**Irritation and corrosivity**

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	Not irritant	Rabbit	Method not given	
sodium dodecylbenzenesulphonate	No data available			
sodium percarbonate	Not irritant	Rabbit	Method not given	
disodium disilicate	No data available			
citric acid monohydrate	Not irritant	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol ethoxylate	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	Irritant	Rabbit	Method not given	
sodium dodecylbenzenesulphonate	No data available			
sodium percarbonate	Severe damage	Rabbit	EPA OPP 81-4	
disodium disilicate	No data available			

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citric acid monohydrate	Irritant	Rabbit	OECD 405 (EU B.5)	
alkyl alcohol ethoxylate	No data available			

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	No data available			
sodium dodecylbenzenesulphonate	No data available			
sodium percarbonate	Irritating to respiratory tract	Mouse	Method not given	
disodium disilicate	No data available			
citric acid monohydrate	No data available			
alkyl alcohol ethoxylate	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium carbonate	Not sensitising		Method not given	
sodium dodecylbenzenesulphonate	No data available			
sodium percarbonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
disodium disilicate	No data available			
citric acid monohydrate	Not sensitising	Guinea pig	Method not given	
alkyl alcohol ethoxylate	No data available			

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	No data available			
sodium dodecylbenzenesulphonate	No data available			
sodium percarbonate	No data available			
disodium disilicate	No data available			
citric acid monohydrate	No data available			
alkyl alcohol ethoxylate	No data available			

## 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 carbonate		No data available				
sodium dodecylbenzenesulphonate		No data available				
sodium percarbonate		No data available				
disodium disilicate		No data available				
citric acid monohydrate	NOAEL	4000	Rat	Method not given	5	
alkyl alcohol ethoxylate		No data available				

## Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sodium carbonate		No data available				
sodium dodecylbenzenesulphonate		No data available				
sodium percarbonate		No data available				
disodium disilicate		No data available				
citric acid monohydrate		No data available				
alkyl alcohol ethoxylate		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 carbonate		No data available				
sodium dodecylbenzenesulphonate		No data available				
sodium percarbonate		No data available				

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disodium disilicate		No data available				
citric acid monohydrate		No data available				
alkyl alcohol ethoxylate		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 carbonate			No data available					
sodium dodecylbenzenesulphonate			No data available					
sodium percarbonate			No data available					
disodium disilicate			No data available					
citric acid monohydrate	Oral		2000	Rat	Method not given	90 day(s)	No effects observed	
alkyl alcohol ethoxylate			No data available					

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

## Mixture data:

Based on available data, the classification criteria are not met.

Substance data, where relevant and available:

## Carcinogenicity

Ingredient(s)	Effect
sodium carbonate	No evidence for carcinogenicity, weight-of-evidence
sodium dodecylbenzenesulphonate	No data available
sodium percarbonate	No data available
disodium disilicate	No data available
citric acid monohydrate	No evidence for carcinogenicity, negative test results
alkyl alcohol ethoxylate	No evidence for carcinogenicity, negative test results

## Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
sodium carbonate	No data available		No data available	
sodium dodecylbenzenesulphonate	No data available		No data available	
sodium percarbonate	No data available		No data available	
disodium disilicate	No data available		No data available	
citric acid monohydrate	No evidence for mutagenicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
alkyl alcohol ethoxylate	No evidence for mutagenicity, negative test results		No data available	

## Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
sodium carbonate			No data available				
sodium dodecylbenzenesulphonate			No data available				
sodium percarbonate			No data available				
disodium disilicate			No data available				
citric acid monohydrate			No data available				No evidence for reproductive toxicity
alkyl alcohol ethoxylate			No data available				Not toxic for reproduction

**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**

## Mixtures

No test data is available on the mixture.

Substance data, where relevant and available, are listed below



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## Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium carbonate	LC <sub>50</sub>	300	Lepomis macrochirus	Method not given	96
sodium dodecylbenzenesulphonate		No data available			
sodium percarbonate	LC <sub>50</sub>	70.7	Pimephales promelas	Method not given	96
disodium disilicate		No data available			
citric acid monohydrate	LC <sub>50</sub>	440	Leuciscus idus	OECD 203	48
alkyl alcohol ethoxylate	LC <sub>50</sub>	1 - 10		Method not given	

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium carbonate	EC <sub>50</sub>	265	Daphnia magna Straus	Method not given	96
sodium dodecylbenzenesulphonate		No data available			
sodium percarbonate	EC <sub>50</sub>	4.9	Daphnia pulex	Method not given	48
disodium disilicate		No data available			
citric acid monohydrate	LC <sub>50</sub>	1535	Daphnia magna Straus	Method not given	24
alkyl alcohol ethoxylate	EC <sub>50</sub>	1 - 10		Method not given	

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium carbonate		No data available			
sodium dodecylbenzenesulphonate		No data available			
sodium percarbonate		No data available			
disodium disilicate		No data available			
citric acid monohydrate	LC <sub>50</sub>	425	Scenedesmus quadricauda	Method not given	168
alkyl alcohol ethoxylate	LC <sub>50</sub>	1 - 10		Method not given	

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium carbonate		No data available			
sodium dodecylbenzenesulphonate		No data available			
sodium percarbonate		No data available			
disodium disilicate		No data available			
citric acid monohydrate		No data available			
alkyl alcohol ethoxylate		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium carbonate		No data available			
sodium dodecylbenzenesulphonate		No data available			
sodium percarbonate	EC <sub>50</sub>	466	Activated sludge	OECD 209	0.5 hour(s)
disodium disilicate		No data available			
citric acid monohydrate	EC <sub>0</sub>	> 10000	Pseudomonas putida	Method not given	16 hour(s)
alkyl alcohol ethoxylate	EC <sub>50</sub>	> 100		Method not given	

## Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
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sodium carbonate		No data available				
sodium dodecylbenzenesulphonate		No data available				
sodium percarbonate	NOEC	7.4	Pimephales promelas	Method not given	96 hour(s)	
disodium disilicate		No data available				
citric acid monohydrate		No data available				
alkyl alcohol ethoxylate		No data available				

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium carbonate		No data available				
sodium dodecylbenzenesulphonate		No data available				
sodium percarbonate	NOEC	2	Daphnia pulex	Method not given	48 hour(s)	
disodium disilicate		No data available				
citric acid monohydrate		No data available				
alkyl alcohol ethoxylate		No data available				

## 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 carbonate		No data available				
sodium dodecylbenzenesulphonate		No data available				
sodium percarbonate		No data available				
disodium disilicate		No data available				
citric acid monohydrate		No data available				
alkyl alcohol ethoxylate		No data available				

**Terrestrial toxicity**

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

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

**12.2 Persistence and degradability****Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
sodium percarbonate	NA	Method not given		

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
sodium carbonate	No data available		Rapidly hydrolysible	
sodium percarbonate	< 1 day(s)	Method not given	Hydrolysible	

Abiotic degradation - other processes, if available:

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
sodium carbonate					Not applicable (inorganic substance)
sodium dodecylbenzenesulphonate					No data available

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sodium percarbonate					Not applicable (inorganic substance)
disodium disilicate					No data available
citric acid monohydrate		Method not given	97 % in 28 day(s)	Method not given	Readily biodegradable
alkyl alcohol ethoxylate					Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

### 12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
sodium carbonate	No data available		No bioaccumulation expected	
sodium dodecylbenzenesulphonate	No data available			
sodium percarbonate	No data available			
disodium disilicate	No data available			
citric acid monohydrate	-1.72	Method not given	No bioaccumulation expected	
alkyl alcohol ethoxylate	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium carbonate	No data available			No bioaccumulation expected	
sodium dodecylbenzenesulphonate	No data available				
sodium percarbonate	No data available				
disodium disilicate	No data available				
citric acid monohydrate	No data available				
alkyl alcohol ethoxylate	No data available				

### 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 carbonate	No data available				Potential for mobility in soil, soluble in water
sodium dodecylbenzenesulphonate	No data available				
sodium percarbonate	No data available				High potential for mobility in soil
disodium disilicate	No data available				
citric acid monohydrate	No data available				Potential for mobility in soil, soluble in water
alkyl alcohol ethoxylate	No data available				Potential for mobility in soil, soluble in water

### 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 30 - detergents other than those mentioned in 20 01 29.

Empty packaging  
Recommendation:

Dispose of observing national or local regulations.

## SECTION 14: Transport information

ADR, RID, ADN, IMO/IMDG, ICAO/IATA

14.1 UN number: Non-dangerous goods

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**14.2 UN proper shipping name:** Non-dangerous goods

**14.3 Transport hazard class(es):** Non-dangerous goods

**Class:** -

**14.4 Packing group:** Non-dangerous goods

**14.5 Environmental hazards:** Non-dangerous goods

**14.6 Special precautions for user:** Non-dangerous goods

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** The product is not transported in bulk tankers.

## SECTION 15: Regulatory information

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

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

**Ingredients according to EC Detergents Regulation 648/2004**

anionic surfactants, oxygen-based bleaching agents	5 - 15%
non-ionic surfactants, phosphonates, polycarboxylates, soap, zeolites	< 5%
perfumes, optical brighteners, enzymes, Geraniol, Butylphenyl Methylpropional	

**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*

**MSDS code:** MSDS3979

**Version:** 12

**Revision:** 2014-02-06

**Reason for revision:**

Overall design adjusted in accordance with Regulation (EC) No 1907/2006, Annex II

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

- R36 - Irritating to eyes.
- R41 - Risk of serious damage to eyes.
- R38 - Irritating to skin.
- R22 - Harmful if swallowed.
- R 8 - Contact with combustible material may cause fire.
- R50 - Very toxic to aquatic organisms.
- R37/38 - Irritating to respiratory system and skin.
- H272 - May intensify fire; oxidiser.
- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H400 - Very toxic to aquatic life.

**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

**End of Safety Data Sheet**