Safety Data Sheet

PERSIL LAUNDRY POWDER

Revision: 2018-02-06 **Version:** 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier
Product name: PERSIL LAUNDRY POWDER
Persil is a registered trade mark and is used under licence of Unilever

1.2 Recommended use and restrictions on use
Identified uses:
Laundry powder
Restrictions of use:
Uses other than those identified are not recommended

1.3 Details of the supplier
BCPE DIAMOND NEW ZEALAND LTD
24 Bancroft Crescent, Glendene, Auckland, 0602, New Zealand
Telephone: +64 9 813 9800; 0800 803 615 (toll free)
Fax: + 64 9 813 9801
Website: www.diversey.com

1.4 Emergency telephone number
Call 0800 243 622 (24 hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

HSNO Classification
6.1E - Acutely toxic (oral)
6.1E - Acutely toxic (inhalation)
6.3A - Irritating to the skin
8.3A - Corrosive to ocular tissue
9.1C - Harmful in the aquatic environment

GHS Equivalent Classification
Acute toxicity, oral, Category 5
Acute toxicity, inhalation, Category 5
Skin irritation, Category 2
Serious eye damage, Category 1
Acute aquatic toxicity, Category 3

2.2 Label elements

Signal word: Danger

Hazard statements:
H333 - May be harmful if inhaled.
H303 - May be harmful if swallowed.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H402 - Harmful to aquatic life.

Prevention statement(s):
P233 - Keep container tightly closed.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P280 - Wear protective gloves, protective clothing and eye or face protection.

Response statement(s):

P332 + P313 - If skin irritation occurs: Get medical advice or attention.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P321 - Specific treatment (see supplemental first aid instructions on this label).
P362 - Take off contaminated clothing.

Disposal statement(s):
P501 - Dispose of unused content as chemical waste.

2.3 Other hazards
No other hazards known.

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS number	EC number	Weight percent
sodium carbonate	497-19-8	207-838-8	10-30
sodium alkylbenzenesulphonate	68411-30-3	270-115-0	10-30
disodium trisilicate	1344-09-8	215-687-4	3-10
sodium percarbonate	15630-89-4	239-707-6	3-10
Alcohols, C12-18, ethoxylated	68213-23-0	Present	1-3
starch	9005-25-8	232-679-6	1-3
sodium hypochlorite	7681-52-9	231-668-3	0.01-0.1

Non-hazardous ingredients are the remainder and add up to 100%.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Remove person to fresh air and keep comfortable for breathing. Get medical attention or advice if you feel unwell.

Skin contact: Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

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. Get medical attention or advice if you feel unwell.

Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.

First aid facilities: Eyewash facilities should be considered in a workplace where necessary.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: No known effects or symptoms in normal use.

Skin contact: Causes irritation.

Eye contact: Causes severe or permanent damage.

Ingestion: No known effects or symptoms in normal use.

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.

Poison Information Center: Call 0800 764 766 (0800 POISON)

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.

5.4 Hazchem code
None allocated

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. Do not allow to enter the ground/soil. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

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
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 hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with 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)	Long term value(s)	Short term value(s)	Ceiling value(s)
starch	10 mg/m³		

Biological limit values, if available:

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:

Appropriate engineering controls: No special requirements under normal use conditions.
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).
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 ISO 13982-1).

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

	Method / remark
Physical State: Solid	
Appearance: Powder	
Colour: White	
Odour: Product specific	
Odour threshold: Not applicable	
pH: Not applicable. (neat)	
Dilution pH: ≈ 11 (1%)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	Not applicable to solids or gases
Flash point (°C): Not applicable.	
Sustained combustion: Not applicable. *(UN Manual of Tests and Criteria, section 32, L.2)*	
Evaporation rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not determined	
Upper/lower flammability limit (%): Not determined	
Vapour pressure: Not determined	
Vapour density: Not determined	Not relevant to classification of this product
Relative density: ≈ 0.72 (20 °C)	OECD 109 (EU A.3)
Solubility in / Miscibility with Water: Soluble	
Partition coefficient: n-octanol/water No information available. Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3	
Autoignition temperature: Not determined	
Decomposition temperature: Not applicable.	
Viscosity: Not determined	Not applicable to solids or gases
Explosive properties: Not explosive.	
Oxidising properties: Not oxidising	

9.2 Other information

Surface tension (N/m): Not determined	
Corrosion to metals: Not determined	Not applicable to solids or gases

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): 3200
ATE - Dermal (mg/kg): >5000
ATE - Inhalatory, mists (mg/l): 7.9

Skin irritation and corrosivity
Result: Skin irritant 2 **Method:** Classified according to NZ HSNO Regulations
Eye irritation and corrosivity
Result: Eye damage 1 **Method:** Classified according to NZ HSNO Regulations

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_{50}	2800	Rat	Method not given	
sodium alkylbenzenesulphonate	LD_{50}	1080	Rat	Method not given	
disodium trisilicate	LD_{50}	3400	Rat	Method not given	
sodium percarbonate	LD_{50}	1034	Rat	Method not given	
Alcohols, C12-18, ethoxylated		No data available			
starch		No data available			
sodium hypochlorite	LD_{50}	> 1100	Rat		90

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium carbonate	LD_{50}	> 2000	Rabbit	Method not given	
sodium alkylbenzenesulphonate	LD_{50}	> 2000	Rat	Method not given	
disodium trisilicate	LD_{50}	> 5000	Rat	Method not given	
sodium percarbonate	LD_{50}	> 2000	Rabbit	OECD 402 (EU B.3)	
Alcohols, C12-18, ethoxylated		No data available			
starch		No data available			
sodium hypochlorite	LD_{50}	> 20000	Rabbit	OECD 402 (EU B.3)	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium carbonate	LC_{50}	2.3 (dust)	Rat	OECD 403 (EU B.2)	2
sodium alkylbenzenesulphonate		No data available			
disodium trisilicate	LC_{50}	> 2.06	Rat	Method not given	
sodium percarbonate		No data available			
Alcohols, C12-18, ethoxylated		No data available			
starch		No data available			
sodium hypochlorite	LC_{50}	> 10.5 (vapour)	Rat	OECD 403 (EU B.2)	1

Irritation and corrosivity
Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	Not irritant	Rabbit	Method not given	
sodium alkylbenzenesulphonate	Irritant	Rabbit	OECD 404 (EU B.4)	
disodium trisilicate	Irritant		Method not given	
sodium percarbonate	Not irritant	Rabbit	Method not given	
Alcohols, C12-18, ethoxylated	No data available			
starch	No data available			
sodium hypochlorite	Corrosive	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	Irritant	Rabbit	Method not given	
sodium alkylbenzenesulphonate	Corrosive	Rabbit	OECD 405 (EU B.5)	
disodium trisilicate	Irritant		Method not given	
sodium percarbonate	Severe damage	Rabbit	EPA OPP 81-4	
Alcohols, C12-18, ethoxylated	No data available			
starch	No data available			
sodium hypochlorite	Severe damage	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	No data available			
sodium alkylbenzenesulphonate	Not irritating to respiratory tract			
disodium trisilicate	Irritating to respiratory tract		Method not given	
sodium percarbonate	Irritating to respiratory tract	Mouse	Method not given	
Alcohols, C12-18, ethoxylated	No data available			
starch	No data available			
sodium hypochlorite	Irritating to respiratory tract			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium carbonate	Not sensitising		Method not given	
sodium alkylbenzenesulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
disodium trisilicate	Not sensitising		Method not given	
sodium percarbonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
Alcohols, C12-18, ethoxylated	No data available			
starch	No data available			
sodium hypochlorite	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	No data available			
sodium alkylbenzenesulphonate	No data available			
disodium trisilicate	No data available			
sodium percarbonate	No data available			
Alcohols, C12-18, ethoxylated	No data available			
starch	No data available			
sodium hypochlorite	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 carbonate	No data available		No data available	
sodium alkylbenzenesulphonate	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 476 OECD 473	No data available	
disodium trisilicate	No evidence for mutagenicity, negative test results		No data available	
sodium percarbonate	No data available		No data available	
Alcohols, C12-18, ethoxylated	No data available		No data available	
starch	No data available		No data available	
sodium hypochlorite	No evidence for mutagenicity	OECD 471 (EU B.12/13)	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)

Carcinogenicity

Ingredient(s)	Effect
sodium carbonate	No evidence for carcinogenicity, weight-of-evidence
sodium alkylbenzenesulphonate	No data available
disodium trisilicate	No evidence for carcinogenicity, negative test results
sodium percarbonate	No data available
Alcohols, C12-18, ethoxylated	No data available
starch	No data available
sodium hypochlorite	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 carbonate			No data available				
sodium alkylbenzenesulphonate	NOAEL	Teratogenic effects	300	Rat	Non guideline test		No known significant effects or critical hazards
disodium trisilicate			No data available				No evidence for reproductive toxicity
sodium percarbonate			No data available				

Alcohols, C12-18, ethoxylated			No data available				
starch			No data available				
sodium hypochlorite	NOAEL	Developmental toxicity Impaired fertility	5 (Cl)	Rat	OECD 414 (EU B.31), oral OECD 415 (EU B.34), 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 carbonate		No data available				
sodium alkylbenzenesulphonate		No data available				
disodium trisilicate	NOAEL	> 159	Rat	Method not given		
sodium percarbonate		No data available				
Alcohols, C12-18, ethoxylated		No data available				
starch		No data available				
sodium hypochlorite	NOAEL	50	Rat	OECD 408 (EU B.26)	90	

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 alkylbenzenesulphonate		No data available				
disodium trisilicate		No data available				
sodium percarbonate		No data available				
Alcohols, C12-18, ethoxylated		No data available				
starch		No data available				
sodium hypochlorite		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 alkylbenzenesulphonate		No data available				
disodium trisilicate		No data available				
sodium percarbonate		No data available				
Alcohols, C12-18, ethoxylated		No data available				
starch		No data available				
sodium hypochlorite		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 alkylbenzenesulphonate			No data available					
disodium trisilicate			No data available					
sodium percarbonate			No data available					
Alcohols, C12-18, ethoxylated			No data available					
starch			No data available					
sodium hypochlorite			No data					

			available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium carbonate	No data available
sodium alkylbenzenesulphonate	No data available
disodium trisilicate	No data available
sodium percarbonate	No data available
Alcohols, C12-18, ethoxylated	No data available
starch	No data available
sodium hypochlorite	Not applicable

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium carbonate	No data available
sodium alkylbenzenesulphonate	No data available
disodium trisilicate	No data available
sodium percarbonate	No data available
Alcohols, C12-18, ethoxylated	No data available
starch	No data available
sodium hypochlorite	Not applicable

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.

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 carbonate	LC_{50}	300	*Lepomis macrochirus*	Method not given	96
sodium alkylbenzenesulphonate	LC_{50}	1.67	*Fish*	EPA-OPPTS 850.1075	96
disodium trisilicate	LC_{50}	260 - 310	*Oncorhynchus mykiss*	Method not given	96
sodium percarbonate	LC_{50}	70.7	*Pimephales promelas*	Method not given	96
Alcohols, C12-18, ethoxylated		No data available			
starch		No data available			
sodium hypochlorite	LC_{50}	0.06	*Oncorhynchus mykiss*	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium carbonate	EC_{50}	265	*Daphnia magna Straus*	Method not given	96
sodium alkylbenzenesulphonate	LC_{50}	2.4	*Daphnia*	84/449/EEC, C2	48
disodium trisilicate	EC_{50}	1700	*Daphnia magna Straus*	Method not given	48
sodium percarbonate	EC_{50}	4.9	*Daphnia pulex*	Method not given	48
Alcohols, C12-18, ethoxylated		No data available			
starch		No data available			
sodium hypochlorite	EC_{50}	0.035	*Ceriodaphnia dubia*	OECD 202 (EU C.2)	48

Aquatic short-term toxicity - algae

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

sodium alkylbenzenesulphonate	$E_b C_{50}$	47.3	*Not specified*	Non guideline test	72
disodium trisilicate	EC_{50}	207	*Desmodesmus subspicatus*	Method not given	72
sodium percarbonate		No data available			-
Alcohols, C12-18, ethoxylated		No data available			
starch		No data available			
sodium hypochlorite	NOEC	0.0021	*Not specified*	Method not given	168

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium carbonate		No data available			-
sodium alkylbenzenesulphonate		No data available			
disodium trisilicate		No data available			-
sodium percarbonate		No data available			-
Alcohols, C12-18, ethoxylated		No data available			
starch		No data available			
sodium hypochlorite	EC_{50}	0.026	*Crassostrea virginica*	Method not given	2

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium carbonate		No data available			
sodium alkylbenzenesulphonate	EC_{50}	550	*Bacteria*	OECD 209	3 hour(s)
disodium trisilicate		No data available			
sodium percarbonate	EC_{50}	466	*Activated sludge*	OECD 209	0.5 hour(s)
Alcohols, C12-18, ethoxylated		No data available			
starch		No data available			
sodium hypochlorite		0.375	*Activated sludge*	Method not given	

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium carbonate		No data available				
sodium alkylbenzenesulphonate	NOEC	0.268	*Not specified*	Method not given	96 day(s)	
disodium trisilicate	NOEC	348	*Brachydanio rerio*	Method not given	96 hour(s)	
sodium percarbonate	NOEC	7.4	*Pimephales promelas*	Method not given	96 hour(s)	
Alcohols, C12-18, ethoxylated		No data available				
starch		No data available				
sodium hypochlorite	NOEC	0.04	*Menidia pelinsulae*	Method not given	96 hour(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium carbonate		No data available				
sodium alkylbenzenesulphonate	NOEC	1.41	*Daphnia magna*	OECD 211		
disodium trisilicate		No data available				
sodium percarbonate	NOEC	2	*Daphnia pulex*	Method not given	48 hour(s)	
Alcohols, C12-18, ethoxylated		No data available				
starch		No data available				
sodium hypochlorite		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 alkylbenzenesulphonate		No data available				
disodium trisilicate		No data available			-	
sodium percarbonate		No data available			-	
Alcohols, C12-18, ethoxylated		No data available				
starch		No data available				
sodium hypochlorite		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 carbonate		No data available			-	
disodium trisilicate		No data available			-	
sodium percarbonate		No data available			-	
sodium hypochlorite		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium carbonate		No data available			-	
disodium trisilicate		No data available			-	
sodium percarbonate		No data available			-	
sodium hypochlorite		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sodium carbonate		No data available			-	
disodium trisilicate		No data available			-	
sodium percarbonate		No data available			-	
sodium hypochlorite		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 carbonate		No data available			-	
disodium trisilicate		No data available			-	
sodium percarbonate		No data available			-	
sodium hypochlorite		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 carbonate		No data available			-	
disodium trisilicate		No data available			-	
sodium percarbonate		No data			-	

		available				
sodium hypochlorite		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 percarbonate	NA	Method not given		
sodium hypochlorite	115 day(s)	Indirect photo-oxidation		

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_{50}	Method	Evaluation
sodium carbonate					Not applicable (inorganic substance)
sodium alkylbenzenesulphonate	Activated sludge, aerobe	CO_2 production		OECD 301B	Readily biodegradable
disodium trisilicate					Not applicable (inorganic substance)
sodium percarbonate					Not applicable (inorganic substance)
Alcohols, C12-18, ethoxylated				OECD 301F	Readily biodegradable
starch					Readily biodegradable
sodium hypochlorite					Not applicable (inorganic substance)

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 carbonate	No data available		No bioaccumulation expected	
sodium alkylbenzenesulphonate	3.32	Method not given	High potential for bioaccumulation	
disodium trisilicate	No data available		Low potential for bioaccumulation	
sodium percarbonate	No data available			
Alcohols, C12-18, ethoxylated	No data available			
starch	No data available			
sodium hypochlorite	-3.42	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium carbonate	No data available			No bioaccumulation expected	
sodium alkylbenzenesulphonate	2-1000		Method not given	High potential for bioaccumulation	
disodium trisilicate	No data available				
sodium percarbonate	No data available				
Alcohols, C12-18, ethoxylated	No data available				
starch	No data available				
sodium hypochlorite	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 alkylbenzenesulphonate	No data available				
disodium trisilicate	No data available				
sodium percarbonate	No data available				High potential for mobility in

					soil
Alcohols, C12-18, ethoxylated	No data available				
starch	No data available				
sodium hypochlorite	1.12				High potential for mobility in soil

12.5 Other adverse effects
No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Waste from residues / unused products: 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.

Empty packaging
Recommendation: Dispose of observing national or local regulations.

SECTION 14: Transport information

Land transport, Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)
14.1 UN number: Non-dangerous goods
14.2 UN proper shipping name: Non-dangerous goods
14.3 Transport hazard class(es): Non-dangerous goods
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 and the IBC Code: Non-dangerous goods

Other relevant information:
Hazchem code: None allocated

SECTION 15: Regulatory information

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

HSNO Approval Number HSR002530.
Group standard Cleaning Products (Subsidiary Hazard) Group Standard 2017
Inventory Listing(s) New Zealand: NZIoC (New Zealand Inventory of Chemicals)
All components are listed on the NZIoC inventory, or are exempt

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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Exposure standards - Time Weighted Average (TWA) or Workplace Exposure Standard (WES) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

Abbreviations and acronyms:
• DNEL - Derived No Effect Limit
• AUH - GHS Specific hazard statement
• PNEC - Predicted No Effect Concentration
• 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
• STOT-RE - Specific target organ toxicity (repeated exposure)
• STOT-SE - Specific target organ toxicity (single exposure)
• EC No. - European Community Number
• OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet