



OPTIMO LAUNDRY POWDER (TOP LOADER)

Revision: 2018-08-15

Version: 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier

Product name: OPTIMO LAUNDRY POWDER (TOP LOADER)

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

DIVERSEY 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 aquatic toxicity, Category 3

Acute toxicity, oral, Category 5

Acute toxicity, inhalation, Category 5

Skin irritation, Category 2

Serious eye damage, Category 1

Chronic aquatic toxicity, Category 3

2.2 Label elements



Signal word: Danger

Hazard statements:

H303 - May be harmful if swallowed.

H333 - May be harmful if inhaled.

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):

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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
pentasodium triphosphate	7758-29-4	231-838-7	10-30
sodium carbonate	497-19-8	207-838-8	10-30
sodium alkylbenzenesulphonate	90194-45-9	290-656-6	3-10
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	68439-57-6	270-407-8	3-10
disodium disilicate	1344-09-8	215-687-4	3-10
sodium hydroxide	1310-73-2	215-185-5	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

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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 advised 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)
sodium hydroxide			2 mg/m ³

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.

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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 applicable to liquids	
Upper/lower flammability limit (%): Not determined	
Vapour pressure: Not determined	
Vapour density: Not determined	Not relevant to classification of this product
Relative density: Not determined	
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): 2800

ATE - Inhalatory, mists (mg/l): 13

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

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Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
pentasodium triphosphate	LD ₀	> 2000	Rat	OECD 401 (EU B.1)	
sodium carbonate	LD ₅₀	2800	Rat	Method not given	
sodium alkylbenzenesulphonate		No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	LD ₅₀	> 2000	Rat	OECD 401 (EU B.1)	
disodium disilicate	LD ₅₀	3400	Rat	Method not given	
sodium hydroxide		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
pentasodium triphosphate	LD ₅₀	> 4640	Rabbit	Method not given	
sodium carbonate	LD ₅₀	> 2000	Rabbit	Method not given	
sodium alkylbenzenesulphonate		No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	LD ₅₀	6300	Rabbit	OECD 402 (EU B.3)	
disodium disilicate	LD ₅₀	> 5000	Rat	Method not given	
sodium hydroxide	LD ₅₀	1350	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
pentasodium triphosphate	LC ₀	0.39 (dust)	Rat	EPA OPP 81-3	4
sodium carbonate	LC ₅₀	2.3 (dust)	Rat	OECD 403 (EU B.2)	2
sodium alkylbenzenesulphonate		No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	LC ₅₀	> 52	Rat	OECD 403 (EU B.2)	4
disodium disilicate	LC ₅₀	> 2.06 No mortality observed	Rat	Non guideline test	
sodium hydroxide		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
pentasodium triphosphate	Not irritant	Rabbit	OECD 404 (EU B.4)	
sodium carbonate	Not irritant	Rabbit	Method not given	
sodium alkylbenzenesulphonate	No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Irritant	Rabbit	OECD 404 (EU B.4)	
disodium disilicate	Irritant		Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
pentasodium triphosphate	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
sodium carbonate	Irritant	Rabbit	Method not given	
sodium alkylbenzenesulphonate	No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Severe damage	Rabbit	OECD 405 (EU B.5)	
disodium disilicate	Severe damage		Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
pentasodium triphosphate	No data available			
sodium carbonate	No data available			
sodium alkylbenzenesulphonate	No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available			
disodium disilicate	Irritating to respiratory tract		Method not given	
sodium hydroxide	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
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pentasodium triphosphate	Not sensitising	Mouse	OECD 429 (EU B.42)	
sodium carbonate	Not sensitising		Method not given	
sodium alkylbenzenesulphonate	No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
disodium disilicate	Not sensitising		Method not given	
sodium hydroxide	Not sensitising		Human repeated patch test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
pentasodium triphosphate	No data available			
sodium carbonate	No data available			
sodium alkylbenzenesulphonate	No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available			
disodium disilicate	No data available			
sodium hydroxide	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)
pentasodium triphosphate	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No evidence of genotoxicity, negative test results	OECD 475 (EU B.11)
sodium carbonate	No data available		No data available	
sodium alkylbenzenesulphonate	No data available		No data available	
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	Method not given
disodium disilicate	No evidence for mutagenicity, negative test results		No data available	
sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)

Carcinogenicity

Ingredient(s)	Effect
pentasodium triphosphate	No evidence for carcinogenicity, negative test results
sodium carbonate	No evidence for carcinogenicity, weight-of-evidence
sodium alkylbenzenesulphonate	No data available
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No evidence for carcinogenicity, negative test results
disodium disilicate	No evidence for carcinogenicity, negative test results
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
pentasodium triphosphate	NOAEL	Developmental toxicity	141	Rat	Not known		No evidence for reproductive toxicity
sodium carbonate			No data available				
sodium alkylbenzenesulphonate			No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts			No data available				No evidence for teratogenic effects
disodium disilicate			No data available				No evidence for reproductive toxicity
sodium hydroxide			No data available				No evidence for developmental toxicity 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
pentasodium triphosphate		No data available				
sodium carbonate		No data available				
sodium alkylbenzenesulphonate		No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
disodium disilicate	NOAEL	> 159	Rat	Method not	180	No effects observed

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				given		
sodium hydroxide		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
pentasodium triphosphate		No data available				
sodium carbonate		No data available				
sodium alkylbenzenesulphonate		No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
disodium disilicate		No data available				
sodium hydroxide		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
pentasodium triphosphate		No data available				
sodium carbonate		No data available				
sodium alkylbenzenesulphonate		No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
disodium disilicate		No data available				
sodium hydroxide		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
pentasodium triphosphate	Oral	NOAEL	225	Rat	Equivalent of OECD 412 (EU B.8)			
sodium carbonate			No data available					
sodium alkylbenzenesulphonate			No data available					
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Oral	NOAEL	259	Rat	Method not given	24 month(s)		
disodium disilicate			No data available					
sodium hydroxide			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
pentasodium triphosphate	No data available
sodium carbonate	No data available
sodium alkylbenzenesulphonate	No data available
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available
disodium disilicate	No data available
sodium hydroxide	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
pentasodium triphosphate	No data available
sodium carbonate	No data available
sodium alkylbenzenesulphonate	No data available
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available
disodium disilicate	Not applicable
sodium hydroxide	No data available

Aspiration hazard

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

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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)
pentasodium triphosphate	LC ₅₀	1850	<i>Brachydanio rerio</i>	Method not given	24
sodium carbonate	LC ₅₀	300	<i>Lepomis macrochirus</i>	Method not given	96
sodium alkylbenzenesulphonate		No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	LC ₅₀	4.2	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96
disodium disilicate	LC ₅₀	1108	<i>Brachydanio rerio</i>	Method not given	96
sodium hydroxide	LC ₅₀	35	Various species	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
pentasodium triphosphate	EC ₅₀	> 100	<i>Daphnia magna Straus</i>	40 CFR 797.1930	48
sodium carbonate	EC ₅₀	265	<i>Daphnia magna Straus</i>	Method not given	96
sodium alkylbenzenesulphonate		No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	EC ₅₀	4.53	<i>Ceriodaphnia sp.</i>	OECD 202 (EU C.2)	48
disodium disilicate	EC ₅₀	1700	<i>Daphnia magna Straus</i>	Method not given	48
sodium hydroxide	EC ₅₀	40.4	<i>Ceriodaphnia sp.</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
pentasodium triphosphate	EC ₅₀	160	<i>Desmodesmus subspicatus</i>	ISO/TC147/SC5/WG5 N84	96
sodium carbonate		No data available			-
sodium alkylbenzenesulphonate		No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	EC ₅₀	5.2		OECD 201 (EU C.3)	72
disodium disilicate	EC ₅₀	207	<i>Desmodesmus subspicatus</i>	Method not given	72
sodium hydroxide	EC ₅₀	22	<i>Photobacterium phosphoreum</i>	Method not given	0.25

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
pentasodium triphosphate		No data available			-
sodium carbonate		No data available			-
sodium alkylbenzenesulphonate		No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-
disodium disilicate		No data available			-
sodium hydroxide		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
pentasodium triphosphate		No data			

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		available		
sodium carbonate		No data available		
sodium alkylbenzenesulphonate		No data available		
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	EC ₅₀	230		OECD 209
disodium disilicate		No data available		
sodium hydroxide		No data available		

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
pentasodium triphosphate	LOEC	5		OECD 212	96 hour(s)	
sodium carbonate		No data available				
sodium alkylbenzenesulphonate		No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
disodium disilicate	NOEC	348	<i>Brachydanio rerio</i>	Method not given	96 hour(s)	
sodium hydroxide		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
pentasodium triphosphate		No data available				
sodium carbonate		No data available				
sodium alkylbenzenesulphonate		No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
disodium disilicate		No data available				
sodium hydroxide		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
pentasodium triphosphate		No data available			-	
sodium carbonate		No data available			-	
sodium alkylbenzenesulphonate		No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
disodium disilicate		No data available			-	
sodium hydroxide		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
pentasodium triphosphate		No data available			-	
sodium carbonate		No data available			-	
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
disodium disilicate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
pentasodium triphosphate		No data			-	

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		available				
sodium carbonate		No data available			-	
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
disodium disilicate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
pentasodium triphosphate		No data available			-	
sodium carbonate		No data available			-	
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
disodium disilicate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
pentasodium triphosphate		No data available			-	
sodium carbonate		No data available			-	
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
disodium disilicate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
pentasodium triphosphate		No data available			-	
sodium carbonate		No data available			-	
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
disodium disilicate		No data available			-	
sodium hydroxide		No data available			-	

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

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

Abiotic degradation - hydrolysis, if available:

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

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
pentasodium triphosphate					Not applicable (inorganic substance)
sodium carbonate					Not applicable (inorganic substance)
sodium alkylbenzenesulphonate				OECD 301B	Readily biodegradable
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		CO ₂ production	> 80 % in 28 day(s)	Method not given	Readily biodegradable
disodium disilicate					Not applicable (inorganic substance)

OPTIMO LAUNDRY POWDER (TOP LOADER)

sodium hydroxide					Not applicable (inorganic substance)
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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
pentasodium triphosphate	No data available			
sodium carbonate	No data available		No bioaccumulation expected	
sodium alkylbenzenesulphonate	No data available			
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	-1.3	(EC) 440/2008, A.8	No bioaccumulation expected	
disodium disilicate	No data available		Low potential for bioaccumulation	
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
pentasodium triphosphate	No data available				
sodium carbonate	No data available			No bioaccumulation expected	
sodium alkylbenzenesulphonate	No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available				
disodium disilicate	No data available				
sodium hydroxide	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
pentasodium triphosphate	No data available				
sodium carbonate	No data available				Potential for mobility in soil, soluble in water
sodium alkylbenzenesulphonate	No data available				
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available				Low potential for adsorption to soil
disodium disilicate	No data available				
sodium hydroxide	No data available				Mobile 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

Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user: Non-dangerous goods

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

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Other relevant information:

Hazchem code: None allocated

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**

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

SDS code: MS32000224**Version:** 01.0**Revision:** 2018-08-15

- H411 - Toxic to aquatic life with long lasting effects.
- H412 - Harmful to aquatic life with long lasting effects.

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