

Safety Data Sheet

OPTIMO LAUNDRY POWDER (FRONT LOADER)

Revision: 2016-02-20 **Version:** 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier

Product name: OPTIMO LAUNDRY POWDER (FRONT 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 Australia Pty. Limited 29 Chifley St, Smithfield, NSW, 2164, Australia

Telephone: 1800 647 779 (toll free)

Fax: (02) 9725 5767

Email: aucustserv@sealedair.com Website: http://www.sealedair.com/

1.4 Emergency telephone number

Call 1800 033 111 (24hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Serious eye damage, Category 1 Skin irritation, Category 2

2.2 Label elements



Signal word: Danger

Hazard statements:

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

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	Classification	Weight percent
sodium carbonate	497-19-8	207-838-8	Eye Irrit. 2 (H319)	10-30
disodium trisilicate	1344-09-8	215-687-4	STOT SE 3 (H335)	3-10
			Skin Irrit. 2 (H315)	
			Eye Irrit. 2 (H319)	
sodium alkylbenzenesulphonate	90194-45-9	290-656-6	Acute Tox. 4 (H302)	3-10
			Skin Irrit. 2 (H315)	
			Eye Dam. 1 (H318)	
Alcohol ethoxylates	68131-39-5	Present	Acute Tox. 4 (H302)	1-3
			Eye Dam. 1 (H318)	
sodium hydroxide	1310-73-2	215-185-5	Skin Corr. 1A (H314)	1-3
			Met. Corr. 1 (H290)	
subtilisin	9014-01-1	232-752-2	Acute Tox. 4 (H302)	0.1-1
			STOT SE 3 (H335)	
			Skin Irrit. 2 (H315)	
			Eye Dam. 1 (H318)	
			Resp. Sens. 1 (H334)	

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

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

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

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:Ingestion:
Causes severe or permanent damage.
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 13 11 26 (Australia Wide).

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

^{*} Polymer

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

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

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 Sealed Air. 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.

7.2 Conditions for safe storage, including any incompatibilities

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

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) (TWA)	Short term value(s) (STEL)	Peak 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: The product is intended to be used in closed systems.

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. **Dilution pH:** =< 11 (1%)

Melting point/freezing point (°C): Not determined

Initial boiling point and boiling range (°C): Not determined

Flash point (°C): Not applicable. Sustained combustion: Not applicable. Evaporation rate: Not determined Flammability (solid, gas): Not determined

Upper/lower flammability limit (%): Not determined

Vapour pressure: Not determined Vapour density: Not determined Relative density: 0.5 g/cm³ (20 °C)

Solubility in / Miscibility with Water: Soluble Autoignition temperature: Not determined Decomposition temperature: Not applicable.

Viscosity: Not determined

Explosive properties: Not explosive. **Oxidising properties:** Not oxidising

9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals: 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): >5000

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	
disodium trisilicate	LD 50	3400	Rat	Method not given	
sodium alkylbenzenesulphonate		No data available			
Alcohol ethoxylates		No data available			
sodium hydroxide		No data available			
subtilisin	LD 50	1800	Rat	OECD 401 (EU B.1)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium carbonate	LD 50	> 2000	Rabbit	Method not given	
disodium trisilicate	LD 50	> 5000	Rat	Method not given	
sodium alkylbenzenesulphonate		No data available			
Alcohol ethoxylates		No data available			
sodium hydroxide		No data available			
subtilisin		No data available			

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
disodium trisilicate	LC 50	> 2.06	Rat	Method not given	
sodium alkylbenzenesulphonate		No data available			
Alcohol ethoxylates		No data available			
sodium hydroxide		No data available			
subtilisin		-		Weight of evidence	

Irritation and corrosivity Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	Not irritant	Rabbit	Method not given	
disodium trisilicate	Irritant		Method not given	
sodium alkylbenzenesulphonate	No data available			
Alcohol ethoxylates	No data available			
sodium hydroxide	Corrosive	Rabbit	Method not given	
subtilisin	Mild irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Lye initation and corrosivity				
Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	Irritant	Rabbit	Method not given	
disodium trisilicate	Severe damage		Method not given	
sodium alkylbenzenesulphonate	No data available			
Alcohol ethoxylates	No data available			
sodium hydroxide	Corrosive	Rabbit	Method not given	
subtilisin	Irritant	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	No data available			
disodium trisilicate	Irritating to respiratory tract		Method not given	
sodium alkylbenzenesulphonate	No data available			
Alcohol ethoxylates	No data available			
sodium hydroxide	No data available			
subtilisin	No data available			

Sensitisation Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium carbonate	Not sensitising		Method not given	
disodium trisilicate	Not sensitising		Method not given	
sodium alkylbenzenesulphonate	No data available			
Alcohol ethoxylates	No data available			
sodium hydroxide	Not sensitising		Human repeated patch test	
subtilisin	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium carbonate	No data available			
disodium trisilicate	No data available			
sodium alkylbenzenesulphonate	No data available			
Alcohol ethoxylates	No data available			
sodium hydroxide	No data available			
subtilisin	Sensitising		Weight of evidence	

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
sodium carbonate	No data available		No data available	
disodium trisilicate	No evidence for mutagenicity, negative test results		No data available	
sodium alkylbenzenesulphonate	No data available		No data available	
Alcohol ethoxylates	No data available		No data available	
sodium hydroxide	No evidence for mutagenicity, negative test results		No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)
subtilisin		OECD 471 (EU B.12/13) OECD 473 OECD 476 (Chinese Hamster Ovary)	No data available	

Carcinogenicity

Ingredient(s)	Effect
sodium carbonate	No evidence for carcinogenicity, weight-of-evidence
disodium trisilicate	No evidence for carcinogenicity, negative test results
sodium alkylbenzenesulphonate	No data available
Alcohol ethoxylates	No data available
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
subtilisin	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				·
disodium trisilicate			No data available				No evidence for reproductive toxicity
sodium alkylbenzenesulphonat e			No data available				
Alcohol ethoxylates			No data available				
sodium hydroxide			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
subtilisin			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				
disodium trisilicate	NOAEL	> 159	Rat	Method not given		
sodium alkylbenzenesulphonate		No data				

	available		
Alcohol ethoxylates	No data		
	available		
sodium hydroxide	No data		
	available		
subtilisin	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				
disodium trisilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
Alcohol ethoxylates		No data available				
sodium hydroxide		No data available				
subtilisin		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			ļ	
disodium trisilicate		No data				
		available				
sodium alkylbenzenesulphonate		No data				
		available				
Alcohol ethoxylates		No data				
•		available				
sodium hydroxide		No data				
•		available				
subtilisin		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					
disodium trisilicate			No data available					
sodium alkylbenzenesulphonat e			No data available					
Alcohol ethoxylates			No data available					
sodium hydroxide			No data available					
subtilisin			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium carbonate	No data available
disodium trisilicate	No data available
sodium alkylbenzenesulphonate	No data available
Alcohol ethoxylates	No data available
sodium hydroxide	No data available
subtilisin	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium carbonate	No data available
disodium trisilicate	No data available
sodium alkylbenzenesulphonate	No data available
Alcohol ethoxylates	No data available
sodium hydroxide	No data available
subtilisin	No data available

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

Potential adverse health effects and symptomsEffects 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
disodium trisilicate	LC 50	260 - 310	Oncorhynchus mykiss	Method not given	96
sodium alkylbenzenesulphonate		No data available			
Alcohol ethoxylates		No data available			
sodium hydroxide	LC 50	35	Various species	Method not given	96
subtilisin	LC 50	8.2	Fish	OECD 203	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
disodium trisilicate	EC 50	1700	Daphnia magna Straus	Method not given	48
sodium alkylbenzenesulphonate		No data available			
Alcohol ethoxylates		No data available			
sodium hydroxide	EC 50	40.4	Ceriodaphnia sp.	Method not given	48
subtilisin	EC 50	0.586	Daphnia	OECD 202	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium carbonate		No data available			-
disodium trisilicate	EC 50	207	Desmodesmus subspicatus	Method not given	72
sodium alkylbenzenesulphonate		No data available			
Alcohol ethoxylates		No data available			
sodium hydroxide	EC 50	22	Photobacteriu m phosphoreum	Method not given	0.25
subtilisin	Er C 50	0.830	Not specified	OECD 201	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium carbonate		No data available			-
disodium trisilicate		No data available			-
sodium alkylbenzenesulphonate		No data available			
Alcohol ethoxylates		No data available			
sodium hydroxide		No data available			-
subtilisin		No data available			-

Impact on sewage plants - toxicity to bacteria

impact on sewage plants - toxicity to bacteria					
Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium carbonate		No data available			

disodium trisilicate	No data available
sodium alkylbenzenesulphonate	No data available
Alcohol ethoxylates	No data available
sodium hydroxide	No data available
subtilisin	No data available

Aquatic long-term toxicity Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium carbonate		No data available				
disodium trisilicate	NOEC	348	Brachydanio rerio	Method not given	96 hour(s)	
sodium alkylbenzenesulphonate		No data available				
Alcohol ethoxylates		No data available				
sodium hydroxide		No data available				
subtilisin		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				
disodium trisilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
Alcohol ethoxylates		No data available				
sodium hydroxide		No data available				
subtilisin		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			-	
disodium trisilicate		No data available			-	
sodium alkylbenzenesulphonate		No data available				
Alcohol ethoxylates		No data available				
sodium hydroxide		No data available			-	
subtilisin		No data available			-	

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including ea					_	=
Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Effects observed
		(mg/kg dw			time (days)	
		soil)			, ,	
sodium carbonate		No data			-	
		available				
disodium trisilicate		No data			-	
		available				
sodium hydroxide		No data			-	
·		available				
subtilisin		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 hydroxide	No data		-	
	available			
subtilisin	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 hydroxide		No data			-	
		available				
subtilisin		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 hydroxide		No data available			-	
subtilisin		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 hydroxide		No data available			-	
subtilisin		No data available			-	

12.2 Persistence and degradability

Abiotic degradation
Abiotic degradation - photodegradation in air, if available:

ribiotic degradation protodegradation in all, if a				
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 availat			Rapidly hydrolysible	

Abiotic degradation - other processes, if available:

Biodegradation

Ingredient(s)	Inoculum	Analytical method	DT 50	Method	Evaluation
sodium carbonate					Not applicable (inorganic substance)
disodium trisilicate					Not applicable (inorganic substance)
sodium alkylbenzenesulphonate					No data available
Alcohol ethoxylates					No data available
sodium hydroxide					Not applicable (inorganic substance)
subtilisin				OECD 301B	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

	the state of the s				
Ingredient(s)		Value	Method	Evaluation	Remark
	sodium carbonate	No data available		No bioaccumulation expected	

disodium trisilicate	No data available	Low potential for bioaccumulation	
sodium alkylbenzenesulphonate	No data available		
Alcohol ethoxylates	No data available		
sodium hydroxide	No data available	Not relevant, does not bioaccumulate	
subtilisin	< 0		

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium carbonate	No data available	vailable No bioaccum		No bioaccumulation expected	
disodium trisilicate	No data available				
sodium alkylbenzenesulphonat e	No data available				
Alcohol ethoxylates	No data available				
sodium hydroxide	No data available				
subtilisin	ilisin -			Not relevant, does not bioaccumulate	

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
disodium trisilicate	No data available				
sodium alkylbenzenesulphonate	No data available				
Alcohol ethoxylates	No data available				
sodium hydroxide	No data available				Mobile in soil
subtilisin	No data available				

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

ADG, IMO/IMDG, ICAO/IATA

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 73/78 and the IBC Code: The product is not transported in bulk tankers.

Hazchem code: None allocated

SECTION 15: Regulatory information

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

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard

for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classification The product is classified based on criteria of Globally Harmonised System of Classification and

Labelling of Chemicals (GHS) as published by Safework Australia.

Inventory listing(s) AICS (Australian Inventory of Chemical Substances): All components are listed on AICS, 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: MS31000283 Version: 01.0 Revision: 2016-02-20

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

- · H290 May be corrosive to metals
- . H302 Harmful if swallowed
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- · H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Additional information:

Respirators: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

Work practices - solvents: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

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).

Personal protective equipment guidelines: The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Health effects from exposure: It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Safety Data Sheet which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations and acronyms:

- ATE Acute Toxicity Estimate
- · AISE The international Association for Soaps, Detergents and Maintenance Products
- LC50 Lethal Concentration, 50% / Median Lethal Concentration
- DNEL Derived No Effect Limit
- EUH CLP Specific hazard statement
- · LD50 Lethal Dose, 50% / Median Lethal dose
- PBT Persistent, Bioaccumulative and Toxic
- STOT-RE Specific target organ toxicity (repeated exposure)
 STOT-SE Specific target organ toxicity (single exposure)

- PNEC Predicted No Effect Concentration
 REACH number REACH registration number, without supplier specific part
- EC No. European Community Number
- · vPvB very Persistent and very Bioaccumulative

End of Safety Data Sheet