



## OPTIMO 2X CONCENTRATE LAUNDRY LIQUID

Revision: 2022-05-11

Version: 01.0

### SECTION 1: Identification of the substance/mixture and supplier

#### 1.1 Product identifier

**Product name:** OPTIMO 2X CONCENTRATE LAUNDRY LIQUID

#### 1.2 Recommended use and restrictions on use

**Identified uses:**

Laundry liquid detergent

**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: 0800 803 615 (toll free)

Website: [www.diversey.com](http://www.diversey.com)

#### 1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)

Call 0800 243 622 (24 hrs)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Serious eye damage, Category 1

Skin irritation, Category 2

Corrosive to metals, Category 1

#### 2.2 Label elements



**Signal word:** Danger

**Hazard statements:**

H290 - May be corrosive to metals.

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

**Prevention statement(s):**

P233 - Keep container tightly closed.

P234 - Keep only in original packaging.

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).

P390 - Absorb spillage to prevent material damage.

**Storage statement(s):**

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P406 - Store in corrosive-resistant container with a resistant inner liner.

**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 alkylbenzenesulphonate	90194-45-9	290-656-6	10-30
alcohols, C12-14, ethoxylated, sulphates, sodium salts	68891-38-3	500-234-8	3-10
tetrasodium (1-hydroxy ethylidene)bisphosphonate	3794-83-0	223-267-7	1-3
sodium silicate	1344-09-8	215-687-4	1-3
sodium hydroxide	1310-73-2	215-185-5	1-3
Alcohols, C10-16, ethoxylated	68002-97-1	500-182-6	1-3

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

[4] Polymer.

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

**SECTION 4: First aid measures****4.1 Description of first aid measures**

<b>Inhalation:</b>	Remove person to fresh air and keep comfortable for breathing. Get medical attention or advice if you feel unwell.
<b>Skin contact:</b>	Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.
<b>Eye contact:</b>	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.
<b>Ingestion:</b>	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.
<b>Self-protection of first aider:</b>	Consider personal protective equipment as indicated in subsection 8.2.
<b>First aid facilities:</b>	Eyewash facilities should be considered in a workplace where necessary.

**4.2 Most important symptoms and effects, both acute and delayed**

<b>Inhalation:</b>	No known effects or symptoms in normal use.
<b>Skin contact:</b>	Causes irritation.
<b>Eye contact:</b>	Causes severe or permanent damage.
<b>Ingestion:</b>	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. Wear eye/face protection. Repeated or prolonged contact: Wear suitable gloves.

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**6.2 Environmental precautions**

Dilute with plenty of water. 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**

Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

**6.4 Reference to other sections**

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Measures to prevent fire and explosions:**

No special precautions required.

**Measures required to protect the environment:**

For environmental exposure controls see subsection 8.2.

**Advices on general occupational hygiene:**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Do not breathe spray. 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 <sup>3</sup>

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:** Use only in well ventilated areas.  
**Appropriate organisational controls:** Avoid direct contact and/or splashes where possible. Train personnel.

**Personal protective equipment****Eye / face protection:**

Safety glasses or goggles (AS/NZS 1337.1).

**Hand protection:**

Chemical-resistant protective gloves (AS/NZS 2161.10). 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 14605).

**Respiratory protection:**

Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided. Trigger spray bottle application: No special requirements under normal use conditions. Apply technical measures to comply with the occupational exposure limits, if

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available

**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

	<b>Method / remark</b>
<b>Physical state:</b> Liquid	
<b>Colour:</b> Clear , from Blue to Green	
<b>Odour:</b> Product specific	
<b>Odour threshold:</b> Not applicable	
<b>pH:</b> ≈ 11.43 (neat)	ISO 4316
<b>Melting point/freezing point (°C):</b> Not determined	Not relevant to classification of this product
<b>Initial boiling point and boiling range (°C):</b> Not determined	

**Flammability (liquid):** Not flammable.  
**Flash point (°C):** Not applicable.  
**Sustained combustion:** Not applicable.  
*( UN Manual of Tests and Criteria, section 32, L.2 )*

<b>Evaporation rate:</b> Not determined	Not relevant to classification of this product
<b>Flammability (solid, gas):</b> Not applicable to liquids	
<b>Lower and upper explosion limit/flammability limit (%):</b> Not determined	
<b>Vapour pressure:</b> Not determined	
<b>Relative vapour density</b> No data available	Not relevant to classification of this product
<b>Relative density:</b> ≈ 1.08 (20 °C)	OECD 109 (EU A.3)
<b>Solubility in / Miscibility with Water:</b> Fully miscible	
<b>Partition coefficient: n-octanol/water</b> 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:** ≈ 1000 mPa.s (20 °C)  
**Explosive properties:** Not explosive.  
**Oxidising properties:** Not oxidising.

### 9.2 Other information

**Surface tension (N/m):** Not determined  
**Corrosion to metals:** Corrosive

## 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

May be corrosive to metals.

### 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:.

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**Relevant calculated ATE(s):**

ATE - Oral (mg/kg): &gt;2000

ATE - Dermal (mg/kg): &gt;2000

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 alkylbenzenesulphonate	LD <sub>50</sub>	> 1470	Rat	OECD 401 (EU B.1)	
alcohols, C12-14, ethoxylated, sulphates, sodium salts	LD <sub>50</sub>	> 2000	Rat	OECD 401 (EU B.1)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	LD <sub>50</sub>	2850	Rat	OECD 401 (EU B.1)	
sodium silicate	LD <sub>50</sub>	3400	Rat	Method not given	
sodium hydroxide		No data available			
Alcohols, C10-16, ethoxylated	LD <sub>50</sub>	> 2000	Rat		

## Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium alkylbenzenesulphonate		No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	LD <sub>50</sub>	> 2000	Rat	OECD 402 (EU B.3)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	LD <sub>50</sub>	> 5000	Rabbit	OECD 402 (EU B.3)	
sodium silicate	LD <sub>50</sub>	> 5000	Rat	Method not given	
sodium hydroxide	LD <sub>50</sub>	1350	Rabbit	Method not given	
Alcohols, C10-16, ethoxylated	LD <sub>50</sub>	> 2000	Rabbit		

## Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium alkylbenzenesulphonate		No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts		5.71			
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			
sodium silicate	LC <sub>50</sub>	> 2.06	Rat	Method not given	
sodium hydroxide		No data available			
Alcohols, C10-16, ethoxylated		No data available			

**Irritation and corrosivity**

## Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium alkylbenzenesulphonate	No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	Irritant	Rabbit	OECD 404 (EU B.4)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Mild irritant	Rabbit	OECD 404 (EU B.4)	4 hour(s)
sodium silicate	Irritant		Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	
Alcohols, C10-16, ethoxylated	No data available			

## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium alkylbenzenesulphonate	No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	Severe damage	Rabbit	OECD 405 (EU B.5)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
sodium silicate	Irritant		Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	
Alcohols, C10-16, ethoxylated	No data available			

## Respiratory tract irritation and corrosivity

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Ingredient(s)	Result	Species	Method	Exposure time
sodium alkylbenzenesulphonate	No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	No data available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			
sodium silicate	Irritating to respiratory tract		Method not given	
sodium hydroxide	No data available			
Alcohols, C10-16, ethoxylated	No data available			

**Sensitisation**

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium alkylbenzenesulphonate	No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			
sodium silicate	Not sensitising		Method not given	
sodium hydroxide	Not sensitising		Human repeated patch test	
Alcohols, C10-16, ethoxylated	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium alkylbenzenesulphonate	No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	No data available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			
sodium silicate	No data available			
sodium hydroxide	No data available			
Alcohols, C10-16, ethoxylated	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 alkylbenzenesulphonate	No data available		No data available	
alcohols, C12-14, ethoxylated, sulphates, sodium salts	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 476	No evidence for mutagenicity, negative test results	OECD 475 (EU B.11)
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No evidence for mutagenicity, negative test results	draft OECD 487	No evidence of genotoxicity, negative test results	OECD 478
sodium silicate	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)
Alcohols, C10-16, ethoxylated	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
sodium alkylbenzenesulphonate	No data available
alcohols, C12-14, ethoxylated, sulphates, sodium salts	No evidence for carcinogenicity, weight-of-evidence
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No evidence for carcinogenicity, negative test results
sodium silicate	No evidence for carcinogenicity, negative test results
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
Alcohols, C10-16, ethoxylated	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 alkylbenzenesulphonate			No data available				
alcohols, C12-14, ethoxylated, sulphates, sodium salts	NOAEL	Developmental toxicity	> 1000	Rat	OECD 414 (EU B.31), oral		No evidence for reproductive toxicity
tetrasodium (1-hydroxy ethylidene)bisphosphonate	NOAEL		112	Rat	OECD 416, (EU B.35), oral		No evidence for reproductive toxicity
sodium silicate			No data available				No evidence for reproductive toxicity
sodium hydroxide			No data				No evidence for developmental

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			available				toxicity No evidence for reproductive toxicity
Alcohols, C10-16, ethoxylated			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 alkylbenzenesulphonate		No data available				
alcohols, C12-14, ethoxylated, sulphates, sodium salts	NOAEL	> 225		OECD 408 (EU B.26)	90	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	NOAEL	41	Rat	OECD 408 (EU B.26)	90	No effects observed
sodium silicate	NOAEL	> 159	Rat	Method not given		
sodium hydroxide		No data available				
Alcohols, C10-16, ethoxylated		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 alkylbenzenesulphonate		No data available				
alcohols, C12-14, ethoxylated, sulphates, sodium salts		No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available				
sodium silicate		No data available				
sodium hydroxide		No data available				
Alcohols, C10-16, ethoxylated		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 alkylbenzenesulphonate		No data available				
alcohols, C12-14, ethoxylated, sulphates, sodium salts		No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available				
sodium silicate		No data available				
sodium hydroxide		No data available				
Alcohols, C10-16, ethoxylated		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 alkylbenzenesulphonate			No data available					
alcohols, C12-14, ethoxylated, sulphates, sodium salts			No data available					
tetrasodium (1-hydroxy ethylidene)bisphosphonate			No data available					
sodium silicate			No data available					
sodium hydroxide			No data available					
Alcohols, C10-16, ethoxylated			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium alkylbenzenesulphonate	No data available
alcohols, C12-14, ethoxylated, sulphates, sodium salts	No data available

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tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available
sodium silicate	No data available
sodium hydroxide	No data available
Alcohols, C10-16, ethoxylated	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium alkylbenzenesulphonate	No data available
alcohols, C12-14, ethoxylated, sulphates, sodium salts	No data available
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available
sodium silicate	No data available
sodium hydroxide	No data available
Alcohols, C10-16, ethoxylated	No data available

**Aspiration hazard**

Substances with an aspiration hazard (H304), if any, are listed in section 3.

**Potential adverse health effects and symptoms**

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

**SECTION 12: Ecological information****12.1 Toxicity**

No data is available on the mixture.

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

**Aquatic short-term toxicity**

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium alkylbenzenesulphonate	LC <sub>50</sub>	No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	LC <sub>50</sub>	7.1	Fish	OECD 203 (EU C.1)	96
tetrasodium (1-hydroxy ethylidene)bisphosphonate	LC <sub>50</sub>	195			
sodium silicate	LC <sub>50</sub>	260 - 310	<i>Oncorhynchus mykiss</i>	Method not given	96
sodium hydroxide	LC <sub>50</sub>	35	Various species	Method not given	96
Alcohols, C10-16, ethoxylated	LC <sub>50</sub>	0.876	Fish	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium alkylbenzenesulphonate	EC <sub>50</sub>	1.62	<i>Daphnia magna Straus</i>		48
alcohols, C12-14, ethoxylated, sulphates, sodium salts	EC <sub>50</sub>	7.4	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			
sodium silicate	EC <sub>50</sub>	1700	<i>Daphnia magna Straus</i>	OECD 202, static	48
sodium hydroxide	EC <sub>50</sub>	40.4	<i>Ceriodaphnia sp.</i>	Method not given	48
Alcohols, C10-16, ethoxylated	LC <sub>50</sub>	0.39	<i>Daphnia</i>	Read across	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium alkylbenzenesulphonate	EC <sub>50</sub>	29	<i>Selenastrum capricornutum</i>		96
alcohols, C12-14, ethoxylated, sulphates, sodium salts	EC <sub>50</sub>	10 - 100	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			
sodium silicate	EC <sub>50</sub>	207	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72
sodium hydroxide	EC <sub>50</sub>	22	<i>Photobacterium phosphoreum</i>	Method not given	0.25
Alcohols, C10-16, ethoxylated	EC <sub>50</sub>	1			72



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## Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium alkylbenzenesulphonate		No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts		No data available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			
sodium silicate		No data available			
sodium hydroxide		No data available			
Alcohols, C10-16, ethoxylated		No data available			

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium alkylbenzenesulphonate		No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	EC <sub>0</sub>	> 100		DIN 38412, Part 27	
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			
sodium silicate		No data available			
sodium hydroxide		No data available			
Alcohols, C10-16, ethoxylated		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 alkylbenzenesulphonate		No data available				
alcohols, C12-14, ethoxylated, sulphates, sodium salts	NOEC	1 - 10	<i>Not specified</i>	OECD 203	45 day(s)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available				
sodium silicate	NOEC	348	<i>Brachydanio rerio</i>	Method not given	96 hour(s)	
sodium hydroxide		No data available				
Alcohols, C10-16, ethoxylated		No data available				

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium alkylbenzenesulphonate		No data available				
alcohols, C12-14, ethoxylated, sulphates, sodium salts	NOEC	0.27	<i>Daphnia sp.</i>	OECD 211	21 day(s)	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	NOEC	6.75	<i>Daphnia magna</i>		28 day(s)	
sodium silicate		No data available				
sodium hydroxide		No data available				
Alcohols, C10-16, ethoxylated		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 hydroxide		No data available				
Alcohols, C10-16, ethoxylated		No data available				

## Terrestrial toxicity

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

Ingredient(s)	Endpoint	Value (mg/kg dw)	Species	Method	Exposure time (days)	Effects observed
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Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
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
sodium hydroxide		No data available				

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
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
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
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 hydroxide	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
sodium hydroxide		No data available			

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
sodium alkylbenzenesulphonate				OECD 301B	Readily biodegradable
alcohols, C12-14, ethoxylated, sulphates, sodium salts		CO <sub>2</sub> production	77-79 % in 28 day(s)	OECD 301D	Readily biodegradable
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Activated sludge, aerobe			Read across	Not readily biodegradable.
sodium silicate					Not applicable (inorganic substance)
sodium hydroxide					Not applicable (inorganic substance)
Alcohols, C10-16, ethoxylated			> 60% in 28 day(s)	OECD 301B	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT <sub>50</sub>	Method	Evaluation
sodium hydroxide					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT <sub>50</sub>	Method	Evaluation
sodium hydroxide					No data available

**12.3 Bioaccumulative potential**

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Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
sodium alkylbenzenesulphonate	No data available			
alcohols, C12-14, ethoxylated, sulphates, sodium salts	0.3	Method not given	No bioaccumulation expected	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			
sodium silicate	No data available		Low potential for bioaccumulation	
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	
Alcohols, C10-16, ethoxylated	5.03	QSAR		

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium alkylbenzenesulphonate	No data available				
alcohols, C12-14, ethoxylated, sulphates, sodium salts	< 3		Method not given	No bioaccumulation expected	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available				
sodium silicate	No data available				
sodium hydroxide	No data available				
Alcohols, C10-16, ethoxylated	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 alkylbenzenesulphonate	No data available				
alcohols, C12-14, ethoxylated, sulphates, sodium salts	No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available				
sodium silicate	No data available				
sodium hydroxide	No data available				Mobile in soil
Alcohols, C10-16, ethoxylated	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.

**Suitable cleaning agents:**

Water, if necessary with cleaning agent.

**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 and the IBC Code:** Non-dangerous goods**Other relevant information:****Hazchem code:** None allocated

## OPTIMO 2X CONCENTRATE LAUNDRY LIQUID

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

<b>HSNO Approval Number</b>	HSR002530.
<b>Group standard</b>	Cleaning Products (Subsidiary Hazard) Group Standard 2020
<b>Inventory Listing(s)</b>	New Zealand: NZIoC (New Zealand Inventory of Chemicals) All components are listed on the NZIoC inventory, or are exempt
<b>HSNO Classification</b>	6.3A - Irritating to the skin 8.1A - Corrosive to metals 8.3A - Corrosive to ocular tissue

**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:** MS32000693**Version:** 01.0**Revision:** 2022-05-11**Abbreviations and acronyms:**

- ATE - Acute Toxicity Estimate
- AUH - Non GHS hazard statement
- DNEL - Derived No Effect Limit
- EC No. - European Community Number
- EC50 - effective concentration, 50%
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PNEC - Predicted No Effect Concentration
- STOT-RE - Specific target organ toxicity (repeated exposure)
- STOT-SE - Specific target organ toxicity (single exposure)

**End of Safety Data Sheet**