



## BREAK UP

Revision: 2018-04-22

Version: 01.0

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

#### 1.1 Product identifier

Product name: BREAK UP

#### 1.2 Recommended use and restrictions on use

##### Identified uses:

Degreaser

##### 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

6.3A - Irritating to the skin

8.3A - Corrosive to ocular tissue

9.3C - Harmful to terrestrial vertebrates

##### GHS Equivalent Classification

Skin irritation, Category 2

Serious eye damage, Category 1

Terrestrial vertebrates, Category 3

#### 2.2 Label elements



Signal word: Danger

##### Hazard statements:

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H433 - Harmful to terrestrial vertebrates.

##### 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.

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**Disposal statement(s):**

P501 - Dispose of unused content as chemical waste.

**2.3 Other hazards**

No other hazards known.

**2.4 Classification diluted product:**

Recommended maximum concentration (%): 2.5

**HSNO Classification**

Not classified as hazardous

**GHS Equivalent Classification**

Not classified as hazardous

**SECTION 3: Composition/information on ingredients****3.1 Substances / Mixtures**

Ingredient(s)	CAS number	EC number	Weight percent
disodium metasilicate	6834-92-0	229-912-9	3-10
sodium xylene sulphonate	1300-72-7	215-090-9	3-10
potassium carbonate	584-08-7	209-529-3	3-10
2-butoxyethanol	111-76-2	203-905-0	1-3
tetrapotassium pyrophosphate	7320-34-5	230-785-7	1-3
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**

<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**

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None allocated

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

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

### 6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Dilute with plenty of water.

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

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

### 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)
2-butoxyethanol	25 ppm 121 mg/m <sup>3</sup>		
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:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

#### Appropriate engineering controls:

If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.

#### 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

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<b>Body protection:</b>	In consultation with the supplier of protective gloves a different type providing similar protection may be chosen. Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).
<b>Respiratory protection:</b>	No special requirements under normal use conditions.
<b>Environmental exposure controls:</b>	No special requirements under normal use conditions.

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (%):** 2.5

<b>Appropriate engineering controls:</b>	No special requirements under normal use conditions.
<b>Appropriate organisational controls:</b>	No special requirements under normal use conditions.

**Personal protective equipment**

<b>Eye / face protection:</b>	No special requirements under normal use conditions.
<b>Hand protection:</b>	No special requirements under normal use conditions.
<b>Body protection:</b>	No special requirements under normal use conditions.
<b>Respiratory protection:</b>	No special requirements under normal use conditions.

<b>Environmental exposure controls:</b>	No special requirements under normal use conditions.
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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

	Method / remark
<b>Physical State:</b> Liquid	
<b>Colour:</b> Clear, Pale Yellow	
<b>Odour:</b> Product specific	
<b>Odour threshold:</b> Not applicable	
<b>pH:</b> ≈ 13.3 (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	
<b>Flash point (°C):</b> Not applicable.	
<b>Sustained combustion:</b> 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>Upper/lower flammability limit (%):</b> Not determined	
<b>Vapour pressure:</b> Not determined	
<b>Vapour density:</b> Not determined	Not relevant to classification of this product
<b>Relative density:</b> ≈ 1.11 (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	
<b>Autoignition temperature:</b> Not determined	
<b>Decomposition temperature:</b> Not applicable.	
<b>Viscosity:</b> Not determined	
<b>Explosive properties:</b> Not explosive.	
<b>Oxidising properties:</b> Not oxidising	

### 9.2 Other information

<b>Surface tension (N/m):</b> Not determined
<b>Corrosion to metals:</b> Not 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

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

ATE - Dermal (mg/kg): >5000

ATE - Inhalatory, mists (mg/l): >20

ATE - Inhalatory, vapours (mg/l): >50

#### Skin irritation and corrosivity

**Result:** Skin irritant 2

**Method:** Alkali or acid reserve

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)
disodium metasilicate	LD <sub>50</sub>	770 - 820	Mouse	Method not given	
sodium xylene sulphonate	LD <sub>50</sub>	> 7200	Rat	Method not given	
potassium carbonate	LD <sub>50</sub>	> 2000	Rat	Method not given	
2-butoxyethanol	LD <sub>50</sub>	1746	Rat	Method not given	
tetrapotassium pyrophosphate	LD <sub>50</sub>	> 2000	Rat	Method not given	
sodium hydroxide		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
disodium metasilicate		No data available			
sodium xylene sulphonate	LD <sub>50</sub>	> 2000	Rabbit	Method not given	
potassium carbonate	LD <sub>50</sub>	> 2000	Rabbit	Method not given	
2-butoxyethanol	LD <sub>50</sub>	6411		Method not given	
tetrapotassium pyrophosphate	LD <sub>50</sub>	> 2000	Rabbit	Method not given	
sodium hydroxide		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate		No data available			
sodium xylene sulphonate	LC <sub>0</sub>	> 6.41 (mist)	Rat	Method not given	4
potassium carbonate		No data available			
2-butoxyethanol	LC <sub>50</sub>	> 2 (mist)	Rat	Method not given	4
tetrapotassium pyrophosphate	LC <sub>50</sub>	> 1.1	Rat	Method not given	4
sodium hydroxide		No data available			

#### Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	Corrosive		Method not given	
sodium xylene sulphonate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
potassium carbonate	Irritant		Weight of evidence	
2-butoxyethanol	Irritant	Rabbit	Method not given	
tetrapotassium pyrophosphate	Not irritant		Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
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disodium metasilicate	Corrosive		Method not given
sodium xylene sulphonate	Irritant	Rabbit	OECD 405 (EU B.5)
potassium carbonate	Irritant	Rabbit	OECD 405 (EU B.5)
2-butoxyethanol	Irritant	Rabbit	OECD 405 (EU B.5)
tetrapotassium pyrophosphate	Irritant		Method not given
sodium hydroxide	Corrosive	Rabbit	Method not given

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	No data available			
sodium xylene sulphonate	No data available			
potassium carbonate	No data available			
2-butoxyethanol	No data available			
tetrapotassium pyrophosphate	No data available			
sodium hydroxide	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
disodium metasilicate	No data available			
sodium xylene sulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
potassium carbonate	Not sensitising	Guinea pig	Method not given	
2-butoxyethanol	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
tetrapotassium pyrophosphate	Not sensitising		Method not given	
sodium hydroxide	Not sensitising		Human repeated patch test	

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	No data available			
sodium xylene sulphonate	No data available			
potassium carbonate	No data available			
2-butoxyethanol	No data available			
tetrapotassium pyrophosphate	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)
disodium metasilicate	No data available		No data available	
sodium xylene sulphonate	No evidence for mutagenicity, negative test results	OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
potassium carbonate	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473	No data available	
2-butoxyethanol	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
tetrapotassium pyrophosphate	No data available		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
disodium metasilicate	No data available
sodium xylene sulphonate	No evidence for carcinogenicity, negative test results
potassium carbonate	No data available
2-butoxyethanol	No evidence for carcinogenicity, negative test results
tetrapotassium pyrophosphate	No data available
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
disodium metasilicate			No data available				
sodium xylene sulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		
potassium carbonate	NOAEL	Teratogenic effects	180	Rat	Not known		

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2-butoxyethanol			No data available				
tetrapotassium pyrophosphate			No data available				
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
disodium metasilicate	NOAEL	> 227 - 237	Rat	Method not given		
sodium xylene sulphonate	NOAEL	763 - 3534	Rat	OECD 408 (EU B.26)	90	
potassium carbonate	NOAEL	6054	Rat	Method not given	28	
2-butoxyethanol		No data available				
tetrapotassium pyrophosphate	NOAEL	No data available	Rat	OECD 408 (EU B.26)	90 days	
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
disodium metasilicate		No data available				
sodium xylene sulphonate	NOAEL	> 440		OECD 411 (EU B.28)	90	
potassium carbonate		No data available				
2-butoxyethanol		No data available				
tetrapotassium pyrophosphate		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
disodium metasilicate		No data available				
sodium xylene sulphonate		No data available				
potassium carbonate	NOAEL	0.06	Rat	Read across	21	
2-butoxyethanol		No data available				
tetrapotassium pyrophosphate		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
disodium metasilicate			No data available					
sodium xylene sulphonate	Oral		No data available	Rat	OECD 453 (EU B.33)	24 month(s)	No adverse effects observed	
potassium carbonate	Oral	NOAEL	2667	Rat	Read across	32 month(s)		
2-butoxyethanol			No data available					
tetrapotassium pyrophosphate			No data available					
sodium hydroxide			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
disodium metasilicate	No data available
sodium xylene sulphonate	No data available
potassium carbonate	No data available
2-butoxyethanol	No data available
tetrapotassium pyrophosphate	No data available
sodium hydroxide	No data available

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STOT-repeated exposure

Ingredient(s)	Affected organ(s)
disodium metasilicate	No data available
sodium xylene sulphonate	No data available
potassium carbonate	No data available
2-butoxyethanol	No data available
tetrapotassium pyrophosphate	No data available
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.

**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)
disodium metasilicate	LC <sub>50</sub>	210	<i>Brachydanio rerio</i>	Method not given	96
sodium xylene sulphonate	LC <sub>50</sub>	> 1000	<i>Fish</i>	EPA-OPPTS 850.1075	96
potassium carbonate	LC <sub>50</sub>	68	<i>Oncorhynchus mykiss</i>	Method not given	96
2-butoxyethanol	LC <sub>50</sub>	> 100	<i>Fish</i>	Method not given	96
tetrapotassium pyrophosphate	LC <sub>50</sub>	> 100	<i>Oncorhynchus mykiss</i>	OECD 203 (EU C.1)	96
sodium hydroxide	LC <sub>50</sub>	35	<i>Various species</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate	EC <sub>50</sub>	1700	<i>Daphnia</i>	Method not given	48
sodium xylene sulphonate	EC <sub>50</sub>	> 1000	<i>Daphnia</i>	EPA-OPPTS 850.1010	48
potassium carbonate	EC <sub>50</sub>	200	<i>Daphnia pulex</i>	Method not given	48
2-butoxyethanol	EC <sub>50</sub>	> 100	<i>Daphnia magna Straus</i>	Method not given	24
tetrapotassium pyrophosphate	EC <sub>50</sub>	> 100	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
sodium hydroxide	EC <sub>50</sub>	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)
disodium metasilicate	EC <sub>50</sub>	207	<i>Chlorella pyrenoidosa</i>	Method not given	72
sodium xylene sulphonate	EC <sub>50</sub>	> 230	<i>Not specified</i>	EPA OPPTS 850.5400	96
potassium carbonate		No data available			-
2-butoxyethanol	EC <sub>50</sub>	> 100	<i>Not specified</i>	Method not given	168
tetrapotassium pyrophosphate		No data available			-
sodium hydroxide	EC <sub>50</sub>	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)
disodium metasilicate		No data available			-
sodium xylene sulphonate		No data available			-
potassium carbonate		No data available			-



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2-butoxyethanol		No data available			-
tetrapotassium pyrophosphate		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
disodium metasilicate	EC <sub>50</sub>	> 100	Activated sludge	Method not given	3 hour(s)
sodium xylene sulphonate	E <sub>r</sub> C <sub>50</sub>	> 1000	Activated sludge	OECD 209	3 hour(s)
potassium carbonate		No data available			
2-butoxyethanol	EC <sub>0</sub>	700	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
tetrapotassium pyrophosphate		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
disodium metasilicate		No data available				
sodium xylene sulphonate		No data available				
potassium carbonate		No data available				
2-butoxyethanol		No data available				
tetrapotassium pyrophosphate		No data available				
sodium hydroxide		No data available				

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
disodium metasilicate		No data available				
sodium xylene sulphonate		No data available				
potassium carbonate		No data available				
2-butoxyethanol		No data available				
tetrapotassium pyrophosphate		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
disodium metasilicate		No data available			-	
sodium xylene sulphonate		No data available			-	
potassium carbonate		No data available			-	
2-butoxyethanol		No data available			-	
tetrapotassium pyrophosphate		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
disodium metasilicate		No data available			-	
sodium xylene sulphonate		No data available			-	

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potassium carbonate		No data available			-	
2-butoxyethanol		No data available			-	
tetrapotassium pyrophosphate		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
disodium metasilicate		No data available			-	
sodium xylene sulphonate		No data available			-	
potassium carbonate		No data available			-	
2-butoxyethanol		No data available			-	
tetrapotassium pyrophosphate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
sodium xylene sulphonate		No data available			-	
potassium carbonate		No data available			-	
2-butoxyethanol		No data available			-	
tetrapotassium pyrophosphate		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
disodium metasilicate		No data available			-	
sodium xylene sulphonate		No data available			-	
potassium carbonate		No data available			-	
2-butoxyethanol		No data available			-	
tetrapotassium pyrophosphate		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
disodium metasilicate		No data available			-	
sodium xylene sulphonate		No data available			-	
potassium carbonate		No data available			-	
2-butoxyethanol		No data available			-	
tetrapotassium pyrophosphate		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	

## BREAK UP

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
disodium metasilicate					Not applicable (inorganic substance)
sodium xylene sulphonate			99.8 % in 28 day(s)	OECD 301F	Readily biodegradable
potassium carbonate					Not applicable (inorganic substance)
2-butoxyethanol			100 % in 28 day(s)	OECD 301B	Readily biodegradable
tetrapotassium pyrophosphate					Not applicable (inorganic substance)
sodium hydroxide					Not applicable (inorganic substance)

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

**12.3 Bioaccumulative potential**

Partition coefficient n-octanol/water (log K<sub>ow</sub>)

Ingredient(s)	Value	Method	Evaluation	Remark
disodium metasilicate	No data available			
sodium xylene sulphonate	-3.12	Method not given	No bioaccumulation expected	
potassium carbonate	No data available		No bioaccumulation expected	
2-butoxyethanol	0.81	OECD 107	No bioaccumulation expected	
tetrapotassium pyrophosphate	-2	Method not given	No bioaccumulation expected	
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
disodium metasilicate	No data available				
sodium xylene sulphonate	No data available				
potassium carbonate	No data available				
2-butoxyethanol	No data available				
tetrapotassium pyrophosphate	No data available				
sodium hydroxide	No data available				

**12.4 Mobility in soil**

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K <sub>oc</sub>	Desorption coefficient Log K <sub>oc</sub> (des)	Method	Soil/sediment type	Evaluation
disodium metasilicate	No data available				
sodium xylene sulphonate	No data available				
potassium carbonate	No data available				Potential for mobility in soil, soluble in water
2-butoxyethanol	No data available				Potential for mobility in soil, soluble in water
tetrapotassium pyrophosphate	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.

**Suitable cleaning agents:**

Water, if necessary with cleaning agent.

## BREAK UP

**SECTION 14: Transport information****Land transport, Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)****14.1 UN number:** Non-dangerous goods**14.2 UN proper shipping name:** Non-dangerous goods**14.3 Transport hazard class(es):** Non-dangerous goods**14.4 Packing group:** Non-dangerous goods**14.5 Environmental hazards:** Non-dangerous goods**14.6 Special precautions for user:** Non-dangerous goods**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** Non-dangerous goods**Other relevant information:**

Hazchem code: None allocated

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

<b>HSNO Approval Number</b>	HSR002530.
<b>Group standard</b>	Cleaning Products (Subsidiary Hazard) Group Standard 2017
<b>Inventory Listing(s)</b>	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:** MS32000021**Version:** 01.0**Revision:** 2018-04-22

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

**Abbreviations and acronyms:**

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

**End of Safety Data Sheet**