



## CYCLONE SPRAY & WIPE ALL PURPOSE CLEANER - CITRUS

Revision: 2018-12-03

Version: 01.0

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

#### 1.1 Product identifier

**Product name:** CYCLONE SPRAY & WIPE ALL PURPOSE CLEANER - CITRUS

#### 1.2 Recommended use and restrictions on use

**Identified uses:**

All purpose cleaner and disinfectant

**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**

6.3B - Mildly irritating to the skin

9.1D - Slightly harmful to the aquatic environment or are otherwise designed for biocidal action

**GHS Equivalent Classification**

Skin irritation, Category 3

Acute aquatic toxicity, Category 3

#### 2.2 Label elements

**Signal word:** Warning

**Hazard statements:**

H316 - Causes mild skin irritation.

H402 - Harmful to aquatic life.

**Prevention statement(s):**

P273 - Avoid release to the environment.

**Response statement(s):**

P332 + P313 - If skin irritation occurs: Get medical advice or attention.

**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
2-butoxyethanol	111-76-2	203-905-0	3-10
2-aminoethanol	141-43-5	205-483-3	0.1-1
alkyl alcohol ethoxylate	69011-36-5	[4]	0.1-1
alkyldimethylbenzylammoniumchloride	68424-85-1	270-325-2	0.1-1

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

\* 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>	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>	Rinse cautiously with water for several minutes. If irritation occurs and persists, get medical attention.
<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.

### 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>	No known effects or symptoms in normal use.
<b>Eye contact:</b>	No known effects or symptoms in normal use.
<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

No special measures required.

### 6.2 Environmental precautions

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

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. Use personal protective equipment as required. Use only with

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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. Keep from freezing. 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>		
2-aminoethanol	3 ppm 7.5 mg/m <sup>3</sup>	6 ppm 15 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 are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product (EN 166).

**Hand protection:** No special requirements under normal use conditions.

**Body protection:** No special requirements under normal use conditions.

**Respiratory protection:** Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided.

**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

**Physical State:** Liquid

**Colour:** Clear, Pale Yellow

**Odour:** Slightly perfumed

**Odour threshold:** Not applicable

**pH:** ≈ 10.9 (neat)

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

**Initial boiling point and boiling range (°C):** 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 )

**Evaporation rate:** Not determined

**Flammability (solid, gas):** Not applicable to liquids

**Upper/lower flammability limit (%):** Not determined

**Vapour pressure:** Not determined

**Vapour density:** Not determined

**Relative density:** ≈ 1.015 (20 °C)

**Solubility in / Miscibility with Water:** Fully miscible

**Partition coefficient: n-octanol/water** No information available.

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

**Autoignition temperature:** Not determined

**Decomposition temperature:** Not applicable.

**Viscosity:** Not determined

**Explosive properties:** Not explosive.

#### Method / remark

ISO 4316

Not relevant to classification of this product

Not relevant to classification of this product

Not relevant to classification of this product  
OECD 109 (EU A.3)

Not relevant to classification of this product

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**Oxidising properties:** Not oxidising

**9.2 Other information**

**Surface tension (N/m):** Not determined

**Corrosion to metals:** 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, vapours (mg/l): >50

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)
2-butoxyethanol	LD <sub>50</sub>	1746	Rat	Method not given	
2-aminoethanol	LD <sub>50</sub>	1089	Rat	OECD 401 (EU B.1)	
alkyl alcohol ethoxylate	LD <sub>50</sub>	> 2000	Rat	OECD 423 (EU B.1 tris)	
alkyldimethylbenzylammoniumchloride	LD <sub>50</sub>	398	Rat		

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
2-butoxyethanol	LD <sub>50</sub>	6411		Method not given	
2-aminoethanol	LD <sub>50</sub>	2000	Rabbit	Method not given	
alkyl alcohol ethoxylate	LD <sub>50</sub>	> 2000	Rat		
alkyldimethylbenzylammoniumchloride	LD <sub>50</sub>	3412	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
2-butoxyethanol	LC <sub>50</sub>	> 2 (mist) No mortality observed	Rat	Method not given	4
2-aminoethanol	LC <sub>50</sub>	No mortality observed	Rat	Method not given	4
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride		No data available			

**Irritation and corrosivity**

Skin irritation and corrosivity

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Ingredient(s)	Result	Species	Method	Exposure time
2-butoxyethanol	Irritant	Rabbit	OECD 404 (EU B.4)	24; 48; 72 hour(s)
2-aminoethanol	Corrosive	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol ethoxylate	Not irritant	Rabbit	Weight of evidence Non guideline test	
alkyldimethylbenzylammoniumchloride	Corrosive	Rabbit	Method not given	

## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
2-butoxyethanol	Irritant	Rabbit	OECD 405 (EU B.5)	24; 48; 72 hour(s)
2-aminoethanol	Severe damage	Rabbit	OECD 405 (EU B.5)	
alkyl alcohol ethoxylate	Severe damage	Rabbit	Weight of evidence Non guideline test	
alkyldimethylbenzylammoniumchloride	Severe damage		Method not given	

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
2-butoxyethanol	No data available			
2-aminoethanol	Irritating to respiratory tract		Method not given	
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
2-butoxyethanol	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
2-aminoethanol	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
alkyl alcohol ethoxylate	Not sensitising	Guinea pig		
alkyldimethylbenzylammoniumchloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
2-butoxyethanol	No data available			
2-aminoethanol	No data available			
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	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)
2-butoxyethanol	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 476 (Chinese Hamster Ovary)	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
2-aminoethanol	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma)	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
alkyl alcohol ethoxylate	No evidence for mutagenicity	OECD 471 (EU B.12/13)	No evidence for mutagenicity, negative test results	Weight of evidence
alkyldimethylbenzylammoniumchloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 476 OECD 473	No evidence of genotoxicity, negative test results	OECD 474 (EU B.12)

## Carcinogenicity

Ingredient(s)	Effect
2-butoxyethanol	No evidence for carcinogenicity, negative test results
2-aminoethanol	No evidence for carcinogenicity, weight-of-evidence
alkyl alcohol ethoxylate	No evidence for carcinogenicity, weight-of-evidence
alkyldimethylbenzylammoniumchloride	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
2-butoxyethanol			No data available				
2-aminoethanol	NOAEL	Developmental toxicity	> 75	Rabbit	OECD 414 (EU B.31), oral	6 - 15 day(s)	No evidence for developmental toxicity No evidence for reproductive toxicity

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alkyl alcohol ethoxylate			-		Weight of evidence		No evidence for reproductive toxicity No evidence for teratogenic effects
alkyldimethylbenzylammoniumchloride			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
2-butoxyethanol		No data available				
2-aminoethanol	NOAEL	300	Rat		75	
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		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
2-butoxyethanol		No data available				
2-aminoethanol		No data available				
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		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
2-butoxyethanol		No data available				
2-aminoethanol		No data available				
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		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
2-butoxyethanol			No data available					
2-aminoethanol			No data available					
alkyl alcohol ethoxylate			No data available					
alkyldimethylbenzylammoniumchloride			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
2-butoxyethanol	No data available
2-aminoethanol	Respiratory tract
alkyl alcohol ethoxylate	Not applicable
alkyldimethylbenzylammoniumchloride	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
2-butoxyethanol	No data available
2-aminoethanol	No data available
alkyl alcohol ethoxylate	Not applicable
alkyldimethylbenzylammoniumchloride	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**

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## 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)
2-butoxyethanol	LC <sub>50</sub>	> 100	<i>Oncorhynchus mykiss</i>	OECD 203, static	96
2-aminoethanol	LC <sub>50</sub>	349	<i>Cyprinus carpio</i>	OECD 203 (EU C.1)	96
alkyl alcohol ethoxylate	LC <sub>50</sub>	1 - 10	<i>Cyprinus carpio</i>	OECD 203 (EU C.1)	96
alkyldimethylbenzylammoniumchloride	LC <sub>50</sub>	0.515	Fish	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
2-butoxyethanol	EC <sub>50</sub>	> 100	<i>Daphnia magna Straus</i>	OECD 202, static	48
2-aminoethanol	EC <sub>50</sub>	65	<i>Daphnia magna Straus</i>	OECD 202, static	48
alkyl alcohol ethoxylate	EC <sub>50</sub>	1 - 10	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
alkyldimethylbenzylammoniumchloride	EC <sub>50</sub>	0.016	<i>Daphnia</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
2-butoxyethanol	EC <sub>50</sub>	> 100	<i>Pseudokirchneriella subcapitata</i>	OECD 201, static	72
2-aminoethanol	EC <sub>50</sub>	2.8	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72
alkyl alcohol ethoxylate	EC <sub>50</sub>	1 - 10	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72
alkyldimethylbenzylammoniumchloride	EC <sub>50</sub>	0.02	<i>Selenastrum capricornutum</i>	OECD 201 (EU C.3)	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
2-butoxyethanol		No data available			-
2-aminoethanol		No data available			-
alkyl alcohol ethoxylate		No data available			-
alkyldimethylbenzylammoniumchloride		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
2-butoxyethanol	EC <sub>0</sub>	700	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
2-aminoethanol	EC <sub>50</sub>	> 1000	Activated sludge	DIN EN ISO 8192-OECD 209-88/302/EEC	3 hour(s)
alkyl alcohol ethoxylate	EC <sub>50</sub>	140	Activated sludge	Weight of evidence	17 hour(s)
alkyldimethylbenzylammoniumchloride	EC <sub>20</sub>	5	Activated sludge	OECD 209	0.5 hour(s)

## Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
2-butoxyethanol	NOEC	> 100	<i>Danio rerio</i>	OECD 204	21 day(s)	
2-aminoethanol	NOEC	1.2	<i>Oryzias latipes</i>	OECD 210	30 day(s)	
alkyl alcohol ethoxylate	NOEC	1.73	Not specified	QSAR Weight of evidence		
alkyldimethylbenzylammoniumchloride		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Effects observed
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		(mg/l)			time	
2-butoxyethanol	NOEC	100	<i>Daphnia magna</i>	OECD 211	21 day(s)	
2-aminoethanol	NOEC	0.85	<i>Daphnia magna</i>	OECD 202	21 day(s)	
alkyl alcohol ethoxylate	NOEC	1.36	<i>Daphnia magna</i>	QSAR Weight of evidence	21 hour(s)	
alkyldimethylbenzylammoniumchloride	NOEC	0.025	<i>Daphnia magna</i>	OECD 211	21 day(s)	

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
2-butoxyethanol		No data available			-	
2-aminoethanol		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
alkyldimethylbenzylammoniumchloride		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
2-butoxyethanol		No data available			-	
2-aminoethanol		No data available			-	
alkyl alcohol ethoxylate	LD <sub>50</sub>	> 1000	<i>Eisenia fetida</i>	OECD 207	14	
alkyldimethylbenzylammoniumchloride		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
2-butoxyethanol		No data available			-	
2-aminoethanol		No data available			-	
alkyl alcohol ethoxylate	EC <sub>50</sub>	> 100	<i>Triticum aestivum</i> <i>Lepidium sativum</i> <i>Brassica alba</i>	OECD 208	-	
alkyldimethylbenzylammoniumchloride		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
2-butoxyethanol		No data available			-	
2-aminoethanol		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
alkyldimethylbenzylammoniumchloride		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
2-butoxyethanol		No data available			-	
2-aminoethanol		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
alkyldimethylbenzylammoniumchloride		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
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2-butoxyethanol		No data available			-	
2-aminoethanol		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
alkyldimethylbenzylammoniumchloride		No data available			-	

**12.2 Persistence and degradability****Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

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
2-butoxyethanol		CO <sub>2</sub> production	90.4 % in 28 day(s)	OECD 301B	Readily biodegradable
2-aminoethanol		DOC reduction	> 90 % in 21 day(s)	OECD 301A	Readily biodegradable
alkyl alcohol ethoxylate		CO <sub>2</sub> production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
alkyldimethylbenzylammoniumchloride		Oxygen depletion	> 60%	Read across	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)

Ingredient(s)	Value	Method	Evaluation	Remark
2-butoxyethanol	0.81	OECD 107	Low potential for bioaccumulation	
2-aminoethanol	- 1.91	OECD 107	No bioaccumulation expected	
alkyl alcohol ethoxylate	No data available		Not relevant, does not bioaccumulate	
alkyldimethylbenzylammoniumchloride	2.88	OECD 107	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
2-butoxyethanol	No data available				
2-aminoethanol	No data available				
alkyl alcohol ethoxylate	No data available				
alkyldimethylbenzylammoniumchloride	0.5		Method not given	No bioaccumulation expected	

**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
2-butoxyethanol	No data available				Potential for mobility in soil, soluble in water
2-aminoethanol	0.067		Model calculation		Potential for mobility in soil, soluble in water Adsorption to solid soil phase is not expected
alkyl alcohol ethoxylate	No data available				
alkyldimethylbenzylammoniumchloride	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.

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Suitable cleaning agents: Water, if necessary with cleaning agent.

### 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

Hazchem code: None allocated

### SECTION 15: Regulatory information

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

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

### SECTION 16: Other information

*The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract*

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

#### Abbreviations and acronyms:

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

End of Safety Data Sheet