Safety Data Sheet

ROOM CARE R1-PLUS

Revision: 2018-07-04 **Version:** 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier
Product name: ROOM CARE R1-PLUS

1.2 Recommended use and restrictions on use
Identified uses:
Toilet cleaner
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)

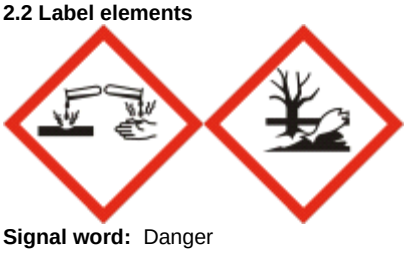
SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

HSNO Classification
3.1D - Flammable liquids: low hazard
8.1A - Corrosive to metals
8.2C - Corrosive to dermal tissue
8.3A - Corrosive to ocular tissue
9.1A - Very ecotoxic in the aquatic environment

GHS Equivalent Classification
Flammable liquids, Category 4
Corrosive to metals, Category 1
Skin corrosion, Category 1C
Acute aquatic toxicity, Category 1

2.2 Label elements



Signal word: Danger

Hazard statements:
H227 - Combustible liquid.
H314 - Causes severe skin burns and eye damage.
H400 - Very toxic to aquatic life.
H290 - May be corrosive to metals.

Prevention statement(s):
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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):
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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).
P363 - Wash contaminated clothing before reuse.
P370 + P378 - In case of fire: Use chemical powder to extinguish.
P390 - Absorb spillage to prevent material damage.

Storage statement(s):
P403 + P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
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.

2.4 Classification diluted product:
Recommended maximum concentration (%): 9.09

HSNO Classification
6.3B - Mildly irritating to the skin
6.4A - Irritating to the eye
9.1D - Slightly harmful to the aquatic environment or are otherwise designed for biocidal action

GHS Equivalent Classification
Skin irritation, Category 3
Serious eye irritation, Category 2
Acute aquatic toxicity, Category 2

2.5 Label elements diluted product

Dilution Signal word: Warning.

H316 - Causes mild skin irritation.
H319 - Causes serious eye irritation.
H401 - Toxic to aquatic life.

P264 - Wash face, hands and any exposed skin thoroughly after handling.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.
P501 - Dispose of unused content as chemical waste.

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS number	EC number	Weight percent
citric acid	77-92-9	201-069-1	10-30
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	8030-78-2	232-447-4	3-10
propane-1,2-diol	57-55-6	200-338-0	3-10
propan-2-ol	67-63-0	200-661-7	3-10
sodium xylene sulphonate	1300-72-7	215-090-9	1-3
amines, dimethyltallow alkyl	68814-69-7	272-339-4	0.1-1

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

General Information: If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation: Remove person to fresh air and keep comfortable for breathing. Get medical attention or advice if you feel unwell.

Skin contact: Take off immediately all contaminated clothing and wash it before re-use. Immediately call a POISON CENTRE, doctor or physician.

Eye contact: Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

Ingestion: Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.

First aid facilities: Shower and eyewash facilities should be considered in a workplace where necessary.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: No known effects or symptoms in normal use.

Skin contact: Causes severe burns.

Eye contact: Causes severe or permanent damage.

Ingestion: Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

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

2X

2 - Fine water spray

X - Liquid-tight chemical protective clothing and breathing apparatus. Contain.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

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

Use neutralising agent. 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 adviced 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 skin and 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)
propane-1,2-diol	150 ppm 474 mg/m³ 10 mg/m³		
propan-2-ol	400 ppm 983 mg/m³	500 ppm 1230 mg/m³	

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). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.
Hand protection: Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm
Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.
Body protection: Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 9.09

Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment
Eye / face protection: No special requirements under normal use conditions.
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

	Method / remark
Physical State: Liquid	
Colour: Clear, Dark, Blue	
Odour: Product specific Slightly perfumed	
Odour threshold: Not applicable	
pH: ≈ 0.8 (neat)	ISO 4316
Dilution pH: < 2 (10%)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	
Flash point (°C): Not determined	
Sustained combustion: Not applicable.	
(UN Manual of Tests and Criteria, section 32, L.2)	
Evaporation rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids	
Upper/lower flammability limit (%): Not determined	
Vapour pressure: Not determined	
Vapour density: Not determined	Not relevant to classification of this product
Relative density: ≈ 1.136 (20 °C)	OECD 109 (EU A.3)
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: ≈ 60 mPa.s	
Explosive properties: Not explosive. Vapours may form explosive mixtures with air.	
Oxidising properties: Not oxidising	Not oxidising, based on substance properties

9.2 Other information

Surface tension (N/m): Not determined	
Corrosion to metals: Corrosive	Weight of evidence

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 alkali and metals. Keep away from products containing chlorine-based bleaching agents or sulphites.

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): 2900
ATE - Dermal (mg/kg): >5000

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

Acute toxicity
Acute oral toxicity

Ingredient(s)	Endpoint	Value	Species	Method	Exposure

		(mg/kg)			time (h)
citric acid	LD_{50}	3000	Rat	Method not given	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	LD_{50}	300-2000	Rat	Method not given	
propane-1,2-diol	LD_{50}	> 10000	Rat	Method not given	
propan-2-ol	LD_{50}	3570	Rat	Method not given	
sodium xylene sulphonate	LD_{50}	> 7200	Rat	Method not given	
amines, dimethyltallow alkyl		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
citric acid	LD_{50}	> 2000	Rat	Method not given	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	LD_{50}	200-1000			
propane-1,2-diol	LD_{50}	> 2000	Rabbit	Method not given	
propan-2-ol	LD_{50}	> 2000	Rabbit	Method not given	
sodium xylene sulphonate	LD_{50}	> 2000	Rabbit	Method not given	
amines, dimethyltallow alkyl		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
citric acid		No data available			
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			
propane-1,2-diol	LC_{50}	> 317 (mist) No mortality observed	Rabbit	Non guideline test	
propan-2-ol	LC_{50}	> 25 (vapour)	Rat	OECD 403 (EU B.2)	6
sodium xylene sulphonate	LC_{0}	> 6.41 (mist)	Rat	Method not given	4
amines, dimethyltallow alkyl		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
citric acid	Not irritant	Rabbit	OECD 404 (EU B.4)	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	Corrosive			
propane-1,2-diol	Not irritant	Rabbit	OECD 404 (EU B.4)	
propan-2-ol	Not irritant	Rabbit	OECD 404 (EU B.4)	
sodium xylene sulphonate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
amines, dimethyltallow alkyl	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
citric acid	Irritant	Rabbit	OECD 405 (EU B.5)	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available			
propane-1,2-diol	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
propan-2-ol	Irritant	Rabbit	OECD 405 (EU B.5)	
sodium xylene sulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
amines, dimethyltallow alkyl	No data available			

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
citric acid	No data available			
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available			
propane-1,2-diol	No data available			
propan-2-ol	No data available			
sodium xylene sulphonate	No data available			
amines, dimethyltallow alkyl	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
citric acid	Not sensitising	Guinea pig	Method not given	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available			
propane-1,2-diol	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	

propan-2-ol	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
sodium xylene sulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
amines, dimethyltallow alkyl	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
citric acid	No data available			
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available			
propane-1,2-diol	No data available			
propan-2-ol	No data available			
sodium xylene sulphonate	No data available			
amines, dimethyltallow alkyl	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)
citric acid	No data available		No evidence of genotoxicity, negative test results	Method not given
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available		No data available	
propane-1,2-diol	No evidence for mutagenicity, negative test results	Method not given	No data available	
propan-2-ol	No evidence for mutagenicity, negative test results No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13)	No evidence of genotoxicity, negative test results	OECD 474 (EU B.12)
sodium xylene sulphonate	No evidence for mutagenicity, negative test results	OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
amines, dimethyltallow alkyl	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
citric acid	No evidence for carcinogenicity, negative test results
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available
propane-1,2-diol	No evidence for carcinogenicity, negative test results
propan-2-ol	No data available
sodium xylene sulphonate	No evidence for carcinogenicity, negative test results
amines, dimethyltallow alkyl	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
citric acid			No data available				No evidence for reproductive toxicity
quaternary ammonium compounds, trimethyltallow alkyl, chlorides			No data available				
propane-1,2-diol			No data available				No evidence for reproductive toxicity
propan-2-ol			No data available				
sodium xylene sulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		
amines, dimethyltallow alkyl			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
citric acid		No data available				
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available				
propane-1,2-diol		No data available				
propan-2-ol		No data available				
sodium xylene sulphonate	NOAEL	763 - 3534	Rat	OECD 408 (EU B.26)	90	
amines, dimethyltallow alkyl		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Specific effects and organs

		(mg/kg bw/d)			time (days)	affected
citric acid		No data available				
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available				
propane-1,2-diol		No data available				
propan-2-ol		No data available				
sodium xylene sulphonate	NOAEL	> 440		OECD 411 (EU B.28)	90	
amines, dimethyltallow alkyl		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
citric acid		No data available				
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available				
propane-1,2-diol		No data available				
propan-2-ol		No data available				
sodium xylene sulphonate		No data available				
amines, dimethyltallow alkyl		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
citric acid			No data available					
quaternary ammonium compounds, trimethyltallow alkyl, chlorides			No data available					
propane-1,2-diol			No data available					
propan-2-ol			No data available					
sodium xylene sulphonate	Oral		No data available	Rat	OECD 453 (EU B.33)	24 month(s)	No adverse effects observed	
amines, dimethyltallow alkyl			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
citric acid	No data available
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available
propane-1,2-diol	No data available
propan-2-ol	No data available
sodium xylene sulphonate	No data available
amines, dimethyltallow alkyl	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
citric acid	No data available
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available
propane-1,2-diol	No data available
propan-2-ol	No data available
sodium xylene sulphonate	No data available
amines, dimethyltallow alkyl	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)
citric acid	LC_{50}	440	*Leuciscus idus*	Method not given	48
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	LC_{50}	> 0.1-1	*Oncorhynchus mykiss*	Method not given	96
propane-1,2-diol	LC_{50}	> 1000	*Fish*	Method not given	24
propan-2-ol	LC_{50}	> 100	*Pimephales promelas*	Method not given	48
sodium xylene sulphonate	LC_{50}	> 1000	*Fish*	EPA-OPPTS 850.1075	96
amines, dimethyltallow alkyl		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
citric acid	EC_{50}	1535	*Daphnia magna Straus*	Method not given	24
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	EC_{50}	> 0.01-0.1	*Daphnia*	Read across	48
propane-1,2-diol	EC_{50}	> 100	*Daphnia*	Method not given	48
propan-2-ol	EC_{50}	> 100	*Daphnia magna Straus*	Method not given	48
sodium xylene sulphonate	EC_{50}	> 1000	*Daphnia*	EPA-OPPTS 850.1010	48
amines, dimethyltallow alkyl		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
citric acid	LC_{50}	425	*Scenedesmus quadricauda*	Method not given	168
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	EC_{50}	> 0.01-0.1	*Not specified*	Read across	72
propane-1,2-diol	EC_{50}	24200	*Desmodesmus subspicatus*	OECD 201 (EU C.3)	72
propan-2-ol	EC_{50}	> 100	*Scenedesmus quadricauda*	Method not given	72
sodium xylene sulphonate	EC_{50}	> 230	*Not specified*	EPA OPPTS 850.5400	96
amines, dimethyltallow alkyl		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
citric acid		No data available			-
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			-
propane-1,2-diol		No data available			-
propan-2-ol		No data available			-
sodium xylene sulphonate		No data available			-
amines, dimethyltallow alkyl		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
citric acid	EC_{50}	> 10000	*Pseudomonas putida*	Method not given	16 hour(s)
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			
propane-1,2-diol	EC_{0}	> 20000	*Pseudomonas putida*	Method not given	18 hour(s)
propan-2-ol	EC_{50}	> 1000	*Activated sludge*	Method not given	
sodium xylene sulphonate	$E_r C_{50}$	> 1000	*Activated sludge*	OECD 209	3 hour(s)
amines, dimethyltallow alkyl		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
citric acid		No data available				
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available				
propane-1,2-diol		No data available				
propan-2-ol		No data available				
sodium xylene sulphonate		No data available				
amines, dimethyltallow alkyl		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
citric acid		No data available				
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	NOEC	> 0.001 - 0.01	*Daphnia magna*	OECD 211	21 day(s)	
propane-1,2-diol	NOEC	13020	*Ceriodaphnia dubia*	Method not given	7 day(s)	
propan-2-ol		No data available				
sodium xylene sulphonate		No data available				
amines, dimethyltallow alkyl		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
citric acid		No data available			-	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			-	
propane-1,2-diol		No data available			-	
propan-2-ol		No data available			-	
sodium xylene sulphonate		No data available			-	
amines, dimethyltallow alkyl		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
citric acid		No data available			-	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			-	
propane-1,2-diol		No data available			-	
propan-2-ol		No data available			-	
sodium xylene sulphonate		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
citric acid		No data available			-	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			-	
propane-1,2-diol		No data available			-	
propan-2-ol		No data available			-	
sodium xylene sulphonate		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed

citric acid		No data available			-	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			-	
propane-1,2-diol		No data available			-	
propan-2-ol		No data available			-	
sodium xylene sulphonate		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
citric acid		No data available			-	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			-	
propane-1,2-diol		No data available			-	
propan-2-ol		No data available			-	
sodium xylene sulphonate		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
citric acid		No data available			-	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides		No data available			-	
propane-1,2-diol		No data available			-	
propan-2-ol		No data available			-	
sodium xylene sulphonate		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_{50}	Method	Evaluation
citric acid			97 % in 28 day(s)		Readily biodegradable
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	Activated sludge, aerobe	Oxygen depletion		OECD 301D	Readily biodegradable
propane-1,2-diol			> 70 % in 28 day(s)	OECD 301A	Readily biodegradable
propan-2-ol			95 % in 21 day(s)	OECD 301E	Readily biodegradable
sodium xylene sulphonate			99.8 % in 28 day(s)	OECD 301F	Readily biodegradable
amines, dimethyltallow alkyl					No data available

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
citric acid	-1.72		No bioaccumulation expected	
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available			
propane-1,2-diol	-1.07	Method not given	No bioaccumulation expected	
propan-2-ol	0.05	OECD 107	No bioaccumulation expected	
sodium xylene sulphonate	-3.12	Method not given	No bioaccumulation expected	
amines, dimethyltallow alkyl	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
citric acid	No data available				
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available				
propane-1,2-diol	No data available				
propan-2-ol	No data available				
sodium xylene sulphonate	No data available				
amines, dimethyltallow alkyl	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
citric acid	No data available				Potential for mobility in soil, soluble in water
quaternary ammonium compounds, trimethyltallow alkyl, chlorides	No data available				
propane-1,2-diol	No data available				Potential for mobility in soil, soluble in water
propan-2-ol	No data available				Potential for mobility in soil, soluble in water
sodium xylene sulphonate	No data available				
amines, dimethyltallow alkyl	No data available				

12.5 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

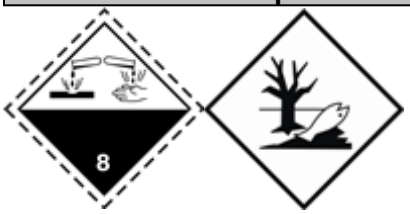
Waste from residues / unused products: The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with 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



Land transport, Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN number: 3265

14.2 UN proper shipping name:

Corrosive liquid, acidic, organic, n.o.s. (citric acid , tallowtrimethylammoniumchloride)

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 8

14.4 Packing group: III

14.5 Environmental hazards:

Environmentally hazardous: Yes

Marine pollutant: Yes

14.6 Special precautions for user: None known.

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

Other relevant information:

Hazchem code: 2X

Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information

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

HSNO Approval Number	HSR002527.
Group standard	Cleaning Products (Corrosive, Combustible) Group Standard 2017
Inventory Listing(s)	New Zealand: NZIoC (New Zealand Inventory of Chemicals) All components are listed on the NZIoC inventory, or are exempt

SECTION 16: Other information

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

SDS code: MS32000262 **Version:** 01.0 **Revision:** 2018-07-04

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