



A Solenis Company

Safety Data Sheet

CREW SMARTDOSE (RESTROOM FLOOR & SURFACE CLEANER - CONCENTRATE)

Revision: 2024-06-05

Version: 02.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier

Product name: CREW SMARTDOSE (RESTROOM FLOOR & SURFACE CLEANER - CONCENTRATE)

1.2 Recommended use and restrictions on use

Identified uses:

Floor and surface cleaner - 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: 0800 803 615 (toll free)

Website: www.diversey.com

1.4 Emergency telephone number

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

Call 0800 243 622 (24 hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Flammable liquids, Category 3

Skin corrosion, Category 1B

Serious eye damage, Category 1

Acute toxicity, oral, Category 4

Skin sensitisation, Category 1

Acute aquatic toxicity, Category 1

Chronic aquatic toxicity, Category 1

Corrosive to metals, Category 1

2.2 Label elements



Signal word: Danger

Hazard statements:

H226 - Flammable liquid and vapour.

H290 - May be corrosive to metals.

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H410 - Very toxic to aquatic life with long lasting effects.

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.

P235 - Keep cool.

P240 - Ground and bond container and receiving equipment.

P241 - Use explosion-proof electrical, ventilating or lighting equipment.

P242 - Use non-sparking tools.

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P243 - Take action to prevent static discharges.
 P264 - Wash face, hands and any exposed skin thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 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.
 P301 + P312 - IF SWALLOWED: Call a POISON CENTRE, doctor or physician if you feel unwell.
 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).
 P330 - Rinse mouth.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P363 - Wash contaminated clothing before reuse.
 P390 - Absorb spillage to prevent material damage.

Storage statement(s):

P403 - Store in a well-ventilated place.
 P405 - Store locked up.
 P406 - Store in corrosive-resistant container with a resistant inner liner.

Disposal statement(s):

P501 - Dispose of contents and container in accordance with national regulations.

2.3 Other hazards

No other hazards known.

2.4 Classification diluted product:

Recommended maximum concentration (% w/w): 0.39

Not classified as hazardous

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

Ingredient(s)	CAS#	EC number	Weight percent
Alcohols, C12-15, ethoxylated (7-<15EO)	68131-39-5	[4]	10-30
n-alkyl dimethyl benzyl ammonium chloride	68424-85-1	270-325-2	3-10
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	68424-95-3	251-035-5	3-10
ethanol	64-17-5	200-578-6	3-10
tetrasodium ethylene diamine tetraacetate	64-02-8	200-573-9	3-10
dimethyldioctylammonium chloride	5538-94-3	226-901-0	3-10
Didecyldimethyl ammonium chloride	7173-51-5	230-525-2	3-10

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

[4] Polymer.

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

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

Symptoms of intoxication may even occur after several hours. It is recommended to continue medical observation for at least 48 hours after the incident. 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. Remove person to fresh air and keep comfortable for breathing. Get medical attention or advice if you feel unwell.

Inhalation:**Skin contact:**

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. 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

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physician. Get medical attention or advice if you feel unwell.
Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.
First aid facilities: Shower and eyewash facilities should be considered in a workplace where necessary. 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. May cause an allergic skin reaction.
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**

Turn off all sources of ignition. Ventilate the area. Wear suitable protective clothing. Wear eye/face protection. Wear suitable gloves.

6.2 Environmental precautions

Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

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

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Do not breathe spray. Do not eat, drink or smoke when using this product. 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 well-ventilated place. Store in a closed container. Keep only in original packaging. Keep from freezing. Keep cool. Keep away from heat and direct sunlight. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

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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)
ethanol	200 ppm 380 mg/m ³	800 ppm 1520 mg/m ³	

Biological limit values, if available:

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.

If available, please refer to the product information sheet for application and handling instructions.

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

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 (AS/NZS 1337.1). 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 (AS/NZS 2161.10). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm

Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

Respiratory protection:

If exposure to liquid particles or splashes cannot be avoided use: half mask (EN 140) or full-face mask (EN 136) with particle filter P2 (EN 143) Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen. Specific applications tools may be available to limit exposure. Please refer to the product information sheet for the possibilities. Apply technical measures to comply with the occupational exposure limits, if available.

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 (% w/w): 0.39

Appropriate engineering controls: Use only in well ventilated areas.

Appropriate organisational controls: No special requirements under normal use conditions.

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

No special requirements under normal use conditions.

Hand protection:

Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.

Body protection:

No special requirements under normal use conditions

Respiratory protection:

Trigger spray bottle application: No special requirements under normal use conditions. Apply technical measures to comply with the occupational exposure limits, if available.

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

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

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	Method / remark
Physical state: Liquid Colour: Clear , Dark , Green Odour: Product specific Odour threshold: Not applicable pH: ≈ 7 (neat) Dilution pH: ≈ 7 (0.39 %) Melting point/freezing point (°C): Not determined Initial boiling point and boiling range (°C): Not determined	ISO 4316 ISO 4316 Not relevant to classification of this product
Flammability (liquid): Flammable. Flash point (°C): ≈ 54 °C Sustained combustion: The product does not sustain combustion <i>(UN Manual of Tests and Criteria, section 32, L.2)</i>	closed cup Weight of evidence
Evaporation rate: Not determined Flammability (solid, gas): Not applicable to liquids Lower and upper explosion limit/flammability limit (%): Not determined Vapour pressure: Not determined Relative density: ≈ 1.02 (20 °C) Relative vapour density: No data available. Particle characteristics: No data available. Solubility in / Miscibility with water: Fully miscible Partition coefficient: n-octanol/water No information available.	Not relevant to classification of this product OECD 109 (EU A.3) Not relevant to classification of this product Not applicable to liquids.
Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3	
Autoignition temperature: Not determined Decomposition temperature: Not applicable. Kinematic viscosity: Not determined Explosive properties: Not explosive. Vapours may form explosive mixtures with air. Oxidising properties: Not oxidising.	
9.2 Other information Surface tension (N/m): Not determined Corrosion to metals: Corrosive	

SECTION 10: Stability and reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

Take action to prevent static discharges.

10.5 Incompatible materials

May be corrosive to metals.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture data: .

Relevant calculated ATE(s):

ATE - Oral (mg/kg): 1000

ATE - Dermal (mg/kg): >2000

ATE - Inhalatory, mists (mg/l): >5

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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)
Alcohols, C12-15, ethoxylated (7-<15EO)	LD ₅₀	> 300-2000	Rat	Method not given	
n-alkyl dimethyl benzyl ammonium chloride	LD ₅₀	304.5	Rat		
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
ethanol	LD ₅₀	5000	Rat	OECD 401 (EU B.1)	
tetrasodium ethylene diamine tetraacetate	LD ₅₀	1780	Rat	OECD 401 (EU B.1)	
dimethyldioctylammonium chloride	LD ₅₀	> 300-2000	Rat	Read across	-
Didecyldimethyl ammonium chloride	LD ₅₀	238	Rat	Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
Alcohols, C12-15, ethoxylated (7-<15EO)	LD ₅₀	> 2000	Rabbit	Method not given	
n-alkyl dimethyl benzyl ammonium chloride	LD ₅₀	3412	Rabbit	Method not given	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
ethanol	LD ₅₀	> 10000	Rabbit	OECD 402 (EU B.3)	
tetrasodium ethylene diamine tetraacetate	LD ₅₀	> 5000	Rabbit	Method not given	
dimethyldioctylammonium chloride		No data available			
Didecyldimethyl ammonium chloride		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Alcohols, C12-15, ethoxylated (7-<15EO)		No data available			
n-alkyl dimethyl benzyl ammonium chloride		No data available			
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
ethanol	LC ₅₀	> 1800	Rat	Non guideline test	4
tetrasodium ethylene diamine tetraacetate	LC ₅₀	≥ 1-5 (dust)	Rat	OECD 403 (EU B.2)	6
dimethyldioctylammonium chloride		No data available			
Didecyldimethyl ammonium chloride		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Alcohols, C12-15, ethoxylated (7-<15EO)	Not irritant	Rabbit	Method not given	
n-alkyl dimethyl benzyl ammonium chloride	Corrosive	Rabbit	Method not given	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
ethanol	Not irritant	Rabbit	OECD 404 (EU B.4)	
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	OECD 404 (EU B.4)	
dimethyldioctylammonium chloride	Corrosive		Method not given	
Didecyldimethyl ammonium chloride	Corrosive	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Alcohols, C12-15, ethoxylated (7-<15EO)	Severe damage	Rabbit	Method not given	
n-alkyl dimethyl benzyl ammonium chloride	Severe damage		Method not given	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
ethanol	Irritant	Rabbit	OECD 405 (EU B.5)	
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	
dimethyldioctylammonium chloride	No data available			
Didecyldimethyl ammonium chloride	Severe damage			

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Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Alcohols, C12-15, ethoxylated (7-<15EO)	No data available			
n-alkyl dimethyl benzyl ammonium chloride	No data available			
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
dimethyldioctylammonium chloride	No data available			
Didecyldimethyl ammonium chloride	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
Alcohols, C12-15, ethoxylated (7-<15EO)	Not sensitising		Method not given	
n-alkyl dimethyl benzyl ammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
ethanol	Not sensitising			
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
dimethyldioctylammonium chloride	No data available			
Didecyldimethyl ammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
Alcohols, C12-15, ethoxylated (7-<15EO)	Not sensitising		Method not given	
n-alkyl dimethyl benzyl ammonium chloride	No data available			
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
dimethyldioctylammonium chloride	No data available			
Didecyldimethyl ammonium chloride	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)
Alcohols, C12-15, ethoxylated (7-<15EO)	No data available		No data available	
n-alkyl dimethyl benzyl ammonium chloride	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)
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available		No data available	
ethanol	No data available		No data available	
tetrasodium ethylene diamine tetraacetate	No evidence for mutagenicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
dimethyldioctylammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) draft OECD 487 Read across	No data available	
Didecyldimethyl ammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476	No data available	

Carcinogenicity

Ingredient(s)	Effect
Alcohols, C12-15, ethoxylated (7-<15EO)	No data available
n-alkyl dimethyl benzyl ammonium chloride	No data available
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence
dimethyldioctylammonium chloride	No data available
Didecyldimethyl ammonium chloride	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
Alcohols, C12-15, ethoxylated (7-<15EO)			No data available				
n-alkyl dimethyl benzyl			No data				

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ammonium chloride			available				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride			No data available				
ethanol			No data available				
tetrasodium ethylene diamine tetraacetate			No data available				No evidence for reproductive toxicity
dimethyldioctylammonium chloride			No data available				
Didecyldimethyl ammonium chloride			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
Alcohols, C12-15, ethoxylated (7-<15EO)		No data available				
n-alkyl dimethyl benzyl ammonium chloride		No data available				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
dimethyldioctylammonium chloride		No data available				
Didecyldimethyl ammonium chloride		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
Alcohols, C12-15, ethoxylated (7-<15EO)		No data available				
n-alkyl dimethyl benzyl ammonium chloride		No data available				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
dimethyldioctylammonium chloride		No data available				
Didecyldimethyl ammonium chloride		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
Alcohols, C12-15, ethoxylated (7-<15EO)		No data available				
n-alkyl dimethyl benzyl ammonium chloride		No data available				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
dimethyldioctylammonium chloride		No data available				
Didecyldimethyl ammonium chloride		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
Alcohols, C12-15, ethoxylated (7-<15EO)			No data available					
n-alkyl dimethyl benzyl ammonium chloride			No data available					
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride			No data available					

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ethanol			No data available				
tetrasodium ethylene diamine tetraacetate			No data available				
dimethyldioctylammonium chloride			No data available				
Didecyldimethyl ammonium chloride			No data available				

STOT-single exposure

Ingredient(s)	Affected organ(s)
Alcohols, C12-15, ethoxylated (7-<15EO)	No data available
n-alkyl dimethyl benzyl ammonium chloride	No data available
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	No data available
dimethyldioctylammonium chloride	No data available
Didecyldimethyl ammonium chloride	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
Alcohols, C12-15, ethoxylated (7-<15EO)	No data available
n-alkyl dimethyl benzyl ammonium chloride	No data available
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	Respiratory tract
dimethyldioctylammonium chloride	No data available
Didecyldimethyl ammonium chloride	No data available

Aspiration hazard

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

Potential adverse health effects and symptoms

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

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the mixture.

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

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Alcohols, C12-15, ethoxylated (7-<15EO)	LC ₅₀	1.4	<i>Pimephales promelas</i>	Method not given	96
n-alkyl dimethyl benzyl ammonium chloride	LC ₅₀	0.515	<i>Fish</i>	Method not given	96
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
ethanol	LC ₅₀	8150	<i>Alburnus alburnus</i>	Method not given	96
tetrasodium ethylene diamine tetraacetate	LC ₅₀	> 100	<i>Lepomis macrochirus</i>	OPP 72-1, static (EPA)	96
dimethyldioctylammonium chloride	LC ₅₀	0.35	<i>Oncorhynchus mykiss</i>	EPA-OPPTS 850.1075	96
Didecyldimethyl ammonium chloride	LC ₅₀	0.97	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Alcohols, C12-15, ethoxylated (7-<15EO)	EC ₅₀	1.4	<i>Daphnia magna</i> Straus	Method not given	48
n-alkyl dimethyl benzyl ammonium chloride	EC ₅₀	0.016	<i>Daphnia</i>	Method not given	48
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
ethanol	EC ₅₀	5012	<i>Daphnia magna</i> Straus	Method not given	48
tetrasodium ethylene diamine tetraacetate	EC ₅₀	140	<i>Daphnia</i>	DIN 38412, Part 11	48

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			<i>magna Straus</i>		
dimethyldioctylammonium chloride	EC ₅₀	> 0.01-0.1	<i>Daphnia magna Straus</i>	Read across	48
Didecyldimethyl ammonium chloride	EC ₅₀	0.053	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Alcohols, C12-15, ethoxylated (7-<15EO)	EC ₅₀	> 1-10	<i>Not specified</i>	Method not given	
n-alkyl dimethyl benzyl ammonium chloride	EC ₅₀	0.02	<i>Selenastrum capricornutum</i>	OECD 201 (EU C.3)	72
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
ethanol	EC ₅₀	675	<i>Scenedesmus quadricauda</i> <i>Not specified</i>	Method not given	72
tetrasodium ethylene diamine tetraacetate	EC ₅₀	> 100	<i>Scenedesmus obliquus</i>	88/302/EEC, Part C, static	72
dimethyldioctylammonium chloride	IC ₅₀	> 0.01-0.1	<i>Not specified</i>	Read across	72
Didecyldimethyl ammonium chloride	EC ₅₀	0.053	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
Alcohols, C12-15, ethoxylated (7-<15EO)		No data available			
n-alkyl dimethyl benzyl ammonium chloride		No data available			
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
ethanol		No data available			
tetrasodium ethylene diamine tetraacetate		No data available			
dimethyldioctylammonium chloride		No data available			
Didecyldimethyl ammonium chloride		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
Alcohols, C12-15, ethoxylated (7-<15EO)		> 100			
n-alkyl dimethyl benzyl ammonium chloride	EC ₂₀	5	<i>Activated sludge</i>	OECD 209	0.5 hour(s)
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
ethanol	EC ₀	6500	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
tetrasodium ethylene diamine tetraacetate	EC ₂₀	> 500	<i>Activated sludge</i>	OECD 209	0.5 hour(s)
dimethyldioctylammonium chloride		No data available			
Didecyldimethyl ammonium chloride		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Alcohols, C12-15, ethoxylated (7-<15EO)	NOEC	0.66	<i>Pimephales promelas</i>	Method not given	96 hour(s)	
n-alkyl dimethyl benzyl ammonium chloride		No data available				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	> 25.7	<i>Brachydanio rerio</i>	OECD 210	35 day(s)	
dimethyldioctylammonium chloride		No data available				
Didecyldimethyl ammonium chloride		No data available				

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Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Alcohols, C12-15, ethoxylated (7-<15EO)	EC ₅₀	0.51	<i>Daphnia magna</i>	Method not given	48 hour(s)	
n-alkyl dimethyl benzyl ammonium chloride	NOEC	0.025	<i>Daphnia magna</i>	OECD 211	21 day(s)	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	25	<i>Daphnia magna</i>	OECD 211	21 day(s)	
dimethyldioctylammonium chloride		No data available				
Didecyltrimethyl ammonium chloride	NOEC	> 0.01-0.1	<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
n-alkyl dimethyl benzyl ammonium chloride		No data available				
Didecyltrimethyl ammonium chloride		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
n-alkyl dimethyl benzyl ammonium chloride		No data available				
tetrasodium ethylene diamine tetraacetate	LD ₅₀	156	<i>Eisenia fetida</i>	OECD 207	14	
Didecyltrimethyl ammonium chloride		No data available				

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
n-alkyl dimethyl benzyl ammonium chloride		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	0.25 - 1.25			21	
Didecyltrimethyl ammonium chloride		No data available				

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
n-alkyl dimethyl benzyl ammonium chloride		No data available				
Didecyltrimethyl ammonium chloride		No data available				

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
n-alkyl dimethyl benzyl ammonium chloride		No data available				
Didecyltrimethyl ammonium chloride		No data available				

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
n-alkyl dimethyl benzyl ammonium chloride		No data available				
Didecyltrimethyl ammonium chloride		No data available				

12.2 Persistence and degradability

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Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
n-alkyl dimethyl benzyl ammonium chloride	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
Didecyldimethyl ammonium chloride	No data available			

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
n-alkyl dimethyl benzyl ammonium chloride	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
Didecyldimethyl ammonium chloride	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
n-alkyl dimethyl benzyl ammonium chloride		No data available			
tetrasodium ethylene diamine tetraacetate		No data available			
Didecyldimethyl ammonium chloride		No data available			

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
Alcohols, C12-15, ethoxylated (7-<15EO)					Readily biodegradable
n-alkyl dimethyl benzyl ammonium chloride		Oxygen depletion	> 60%	Read across	Readily biodegradable
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride					Readily biodegradable
ethanol	Activated sludge, aerobe	Oxygen depletion	> 60% in 10 day(s)	OECD 301B	Readily biodegradable
tetrasodium ethylene diamine tetraacetate				Weight of evidence	Not readily biodegradable.
dimethyldioctylammonium chloride		CO ₂ production	86 % in 28 day(s)	OECD 301B	Readily biodegradable
Didecyldimethyl ammonium chloride		Oxygen depletion	> 60%	OECD 301D	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
n-alkyl dimethyl benzyl ammonium chloride					No data available
tetrasodium ethylene diamine tetraacetate					No data available
Didecyldimethyl ammonium chloride					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
n-alkyl dimethyl benzyl ammonium chloride					No data available
tetrasodium ethylene diamine tetraacetate					No data available
Didecyldimethyl ammonium chloride					No data available

12.3 Bioaccumulative potentialPartition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark
Alcohols, C12-15, ethoxylated (7-<15EO)	No data available			
n-alkyl dimethyl benzyl ammonium chloride	0.004	Method not given	No bioaccumulation expected	at 20 °C
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
ethanol	-0.31	Weight of evidence	No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	-3.86	Method not given	No bioaccumulation expected	
dimethyldioctylammonium chloride	< 3	Method not given	Low potential for bioaccumulation	
Didecyldimethyl ammonium chloride	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
Alcohols, C12-15, ethoxylated (7-<15EO)	No data available				
n-alkyl dimethyl benzyl	79	<i>Lepomis</i>		Low potential for bioaccumulation	

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ammonium chloride		<i>macrochirus</i>			
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available				
ethanol	0.5		Weight of evidence	No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	1.8	<i>Lepomis macrochirus</i>	OECD 305	Low potential for bioaccumulation	
dimethyldioctylammonium chloride	-			No bioaccumulation expected	
Didecyldimethyl ammonium chloride	2.1		Method not given	No bioaccumulation expected	

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
Alcohols, C12-15, ethoxylated (7-<15EO)	No data available				
n-alkyl dimethyl benzyl ammonium chloride	No data available				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available				
ethanol	No data available				
tetrasodium ethylene diamine tetraacetate	No data available				Adsorption to solid soil phase is not expected
dimethyldioctylammonium chloride	No data available				
Didecyldimethyl ammonium chloride	No data available				

12.5 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Waste from residues / unused products:**

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

Empty packaging**Recommendation:**

Dispose of observing national or local regulations.

Suitable cleaning agents:

Water, if necessary with cleaning agent.

SECTION 14: Transport information**ADG, IMO/IMDG, ICAO/IATA****14.1 UN number or ID number:** 1760**14.2 UN proper shipping name:**

Corrosive liquid, n.o.s. (dialkyldimethylammoniumchloride , quaternary ammonium compounds)

14.3 Transport hazard class(es):**Transport hazard class (and subsidiary risks):** 8**14.4 Packing group:** II**14.5 Environmental hazards:****Environmentally hazardous:** Yes**Marine pollutant:** Yes**14.6 Special precautions for user:** None known.**14.7 Maritime transport in bulk according to IMO instruments:** The product is not transported in bulk tankers.**Other relevant information:****Hazchem code:** 2X**IMO/IMDG****EmS:** F-A, S-B

This product has been classified, labelled and package in accordance with the requirements of the NZ Land Transport Rule: Dangerous

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Goods, ADG, and the provisions of the IMDG Code.
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**

Inventory Listing(s)	New Zealand: NZIoC (New Zealand Inventory of Chemicals) All components are listed on the NZIoC inventory, or are exempt
HSNO Classification	3.1C - Flammable liquids: medium hazard 6.1D - Acutely toxic (oral) 6.5B - Contact sensitisers 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

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: MS3200606**Version:** 02.0**Revision:** 2024-06-05**Abbreviations and acronyms:**

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

End of Safety Data Sheet

Product Code:	5607995
Revision Version:	02.0
Formula Code:	FM017481R