Safety Data Sheet

Crew SmartDose (Restroom Floor & Surface Cleaner)

Revision: 2016-01-20 **Version:** 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier
Product name: Crew SmartDose (Restroom Floor & Surface Cleaner)

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 Australia Pty. Limited
29 Chifley St, Smithfield, NSW, 2164, Australia
Telephone: 1800 647 779 (toll free)
Fax: (02) 9725 5767
Email: aucustserv@sealedair.com
Website: http://www.sealedair.com/

1.4 Emergency telephone number
Call 1800 033 111 (24hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Flammable liquids, Category 3
Skin corrosion, Category 1B
Corrosive to the respiratory tract, AUH071
Acute toxicity, oral, Category 4

2.2 Label elements

Signal word: Danger, Warning

Hazard statements:
H226 - Flammable liquid and vapour.
H314 - Causes severe skin burns and eye damage.
AUH071 - Corrosive to the respiratory tract.
H302 - Harmful if swallowed.

Prevention statement(s):
P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground or bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe spray.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
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.
P363 - Wash contaminated clothing before reuse.
P370 + P378 - In case of fire: Use CO_2, dry chemical, or foam to extinguish.

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

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 (%): 0.39

Not classified

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS number	EC number	Classification	Weight percent
alkyl alcohol ethoxylate	68131-39-5	Polymer*	Acute Tox. 4 (H302) Eye Dam. 1 (H318)	10-30
alkyldimethylbenzylammoniumchloride	68424-85-1	270-325-2	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H312)	3-10
Octyl decyl dimethyl ammonium chloride	32426-11-2	251-035-5	Skin Corr. 1B (H314) Acute Tox. 4 (H302)	3-10
ethanol	64-17-5	200-578-6	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)	3-10
tetrasodium ethylene diamine tetraacetate	64-02-8	200-573-9	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Eye Dam. 1 (H318)	3-10
dimethyldioctylammonium chloride	5538-94-3	226-901-0	Skin Corr. 1B (H314) Acute Tox. 4 (H302)	3-10
didecyldimethylammonium chloride	7173-51-5	230-525-2	Skin Corr. 1B (H314) Acute Tox. 4 (H302)	3-10

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

Workplace exposure limit(s), if available, are listed in subsection 8.1.
For the full text of the H and AUH phrases mentioned in this Section, see Section 16.

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.

Inhalation: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE, doctor or physician. Get medical attention or advice if you feel unwell.

Skin contact: Wash skin with plenty of lukewarm, gently flowing water. Take off immediately all contaminated clothing and wash it before re-use. Immediately call a POISON CENTRE, doctor or physician. If skin irritation or rash occurs: Get medical advice or attention.

Eye contact: Immediately rinse eyes cautiously with lukewarm water for several minutes. Rinse cautiously with water for several 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. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician. Call a POISON CENTRE, doctor or 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.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Corrosive to the respiratory tract.

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 13 11 26 (Australia Wide).

SECTION 5: Firefighting measures

5.1 Extinguishing media
Carbon dioxide. Dry powder. Sand. Alcohol-resistant foam. Do not use water.

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, gloves and eye/face protection.

6.2 Environmental precautions
Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up
Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

6.4 Reference to other sections
For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Measures to prevent fire and explosions:
Keep away from flames and hot surfaces. No smoking. Keep away from heat. Take precautionary measures against static discharges.

Measures to prevent aerosol and dust generation:
Avoid formation of aerosol.

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. Keep out of reach of children. Handle and open container with care. Do not mix with other products unless adviced by Sealed Air. 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. Do not breathe spray. Do not eat, drink or smoke when using this product. Use only with adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Keep locked up and out of the reach of children. Keep only in original container. Store in a closed container.
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) (TWA)	Short term value(s) (STEL)	Peak value(s)
ethanol	1000 ppm 1880 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.

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

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 (%): 0.39

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

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

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.

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: 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, Green
Odour: Product specific

Odour threshold: Not applicable
pH: ≈ 7.25 (neat)
Melting point/freezing point (°C): Not determined
Initial boiling point and boiling range (°C): Not determined
Flash point (°C): ≈ 54.4 closed cup
Sustained combustion: The product does not sustain combustion Weight of evidence
Evaporation rate: Not determined
Flammability (solid, gas): Not determined
Upper/lower flammability limit (%): Not determined
Vapour pressure: Not determined
Vapour density: Not determined
Relative density: 1.02 g/cm³ (20 °C)
Solubility in / Miscibility with Water: Soluble Not miscible or difficult to mix
Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
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: 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
Take precautionary measures against static discharge. Keep in a cool place. Keep container in a well-ventilated place.

10.5 Incompatible materials
None known under normal use conditions.

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): 1400
ATE - Dermal (mg/kg): >5000
ATE - Inhalatory, mists (mg/l): >20

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)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	LD_{50}	398	Rat		
Octyl decyl dimethyl ammonium chloride		No data available			
ethanol	LD_{50}	5000	Rat	OECD 401 (EU B.1)	
tetrasodium ethylene diamine tetraacetate	LD_{50}	>= 1780	Rat	Non guideline test	
dimethyldioctylammonium chloride	LD_{50}	> 300-2000	Rat	Read across	-
didecyldimethylammonium chloride	LD_{50}	300 - 2000	Rat	OECD 401 (EU B.1)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	LD_{50}	800 - 1420	Rat	Method not given	
Octyl decyl dimethyl ammonium 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			
didecyldimethylammonium chloride		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride		No data available			
Octyl decyl dimethyl ammonium chloride		No data available			
ethanol	LC_{50}	> 1800	Rat	Non guideline test	4
tetrasodium ethylene diamine tetraacetate	LC_{50}	>= 1 (dust)	Rat	OECD 403 (EU B.2)	6
dimethyldioctylammonium chloride		No data available			
didecyldimethylammonium chloride		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	Corrosive		Method not given	
Octyl decyl dimethyl ammonium chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	Non guideline test	
dimethyldioctylammonium chloride	Corrosive		Method not given	
didecyldimethylammonium chloride	Corrosive	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	Severe damage		Method not given	
Octyl decyl dimethyl ammonium chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	
dimethyldioctylammonium chloride	No data available			
didecyldimethylammonium chloride	No data available			

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	No data available			
Octyl decyl dimethyl ammonium chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
dimethyldioctylammonium chloride	No data available			
didecyldimethylammonium chloride	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	Not sensitising		Method not given	
Octyl decyl dimethyl ammonium chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
dimethyldioctylammonium chloride	No data available			

didecyldimethylammonium chloride	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	No data available			
Octyl decyl dimethyl ammonium chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
dimethyldioctylammonium chloride	No data available			
didecyldimethylammonium 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)
alkyl alcohol ethoxylate	No data available		No data available	
alkyldimethylbenzylammoniumchloride	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
Octyl decyl dimethyl ammonium 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	
didecyldimethylammonium chloride	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
alkyl alcohol ethoxylate	No data available
alkyldimethylbenzylammoniumchloride	No data available
Octyl decyl dimethyl ammonium chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence
dimethyldioctylammonium chloride	No data available
didecyldimethylammonium 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
alkyl alcohol ethoxylate			No data available				
alkyldimethylbenzylammoniumchloride			No data available				
Octyl decyl dimethyl ammonium 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				
didecyldimethylammonium 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
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
Octyl decyl dimethyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium 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
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
Octyl decyl dimethyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium 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
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
Octyl decyl dimethyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium 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
alkyl alcohol ethoxylate			No data available					
alkyldimethylbenzylammoniumchloride			No data available					
Octyl decyl dimethyl ammonium chloride			No data available					
ethanol			No data available					
tetrasodium ethylene diamine tetraacetate			No data available					
dimethyldioctylammonium chloride			No data available					
didecyldimethylammonium chloride			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol ethoxylate	No data available
alkyldimethylbenzylammoniumchloride	No data available
Octyl decyl dimethyl ammonium chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	No data available
dimethyldioctylammonium chloride	No data available
didecyldimethylammonium chloride	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol ethoxylate	No data available
alkyldimethylbenzylammoniumchloride	No data available
Octyl decyl dimethyl ammonium chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	Not applicable
dimethyldioctylammonium chloride	No data available
didecyldimethylammonium chloride	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)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	LC_{50}	> 0.1-1	*Fish*	Method not given	96
Octyl decyl dimethyl ammonium chloride		No data available			
ethanol	LC_{50}	8150	*Alburnus alburnus*	Method not given	96
tetrasodium ethylene diamine tetraacetate	LC_{50}	> 100	*Lepomis macrochirus*	OPP 72-1, static (EPA)	96
dimethyldioctylammonium chloride	LC_{50}	0.35	*Oncorhynchus mykiss*	EPA-OPPTS	96
didecyldimethylammonium chloride	LC_{50}	0.97	*Brachydanio rerio*	OECD 203	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	EC_{50}	0.02	*Daphnia*	Method not given	48
Octyl decyl dimethyl ammonium chloride		No data available			
ethanol	EC_{50}	9268 - 14221	*Daphnia magna Straus*	Method not given	48
tetrasodium ethylene diamine tetraacetate	EC_{50}	> 100	*Daphnia magna Straus*	DIN 38412, Part 11	48
dimethyldioctylammonium chloride	EC_{50}	> 0.01-0.1	*Daphnia magna Straus*	Read across	48
didecyldimethylammonium chloride	EC_{50}	0.053	*Daphnia magna Straus*	OECD 202	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	EC_{50}	0.06	*Pseudokirchneriella subcapitata*	OECD 201	96
Octyl decyl dimethyl ammonium chloride		No data available			
ethanol	EC_{0}	5000	*Scenedesmus quadricauda*	Method not given	168
tetrasodium ethylene diamine tetraacetate	EC_{50}	> 100	*Scenedesmus obliquus*	88/302/EEC, Part C, static	72
dimethyldioctylammonium chloride	IC_{50}	> 0.01-0.1	*Not specified*	Read across	72
didecyldimethylammonium chloride	EC_{50}	0.053	*Pseudokirchneriella subcapitata*	OECD 201	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride		No data available			-
Octyl decyl dimethyl ammonium chloride		No data available			
ethanol		No data available			-
tetrasodium ethylene diamine tetraacetate		No data available			-
dimethyldioctylammonium chloride		No data			-

		available			
didecyldimethylammonium chloride		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	EC_{20}	10	*Activated sludge*	OECD 209	0.5 hour(s)
Octyl decyl dimethyl ammonium chloride		No data available			
ethanol	EC_{0}	6500	*Pseudomonas putida*	Method not given	16 hour(s)
tetrasodium ethylene diamine tetraacetate	EC_{20}	> 500	*Activated sludge*	OECD 209	0.5 hour(s)
dimethyldioctylammonium chloride		No data available			
didecyldimethylammonium 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
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
Octyl decyl dimethyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	>= 36.9	*Brachydanio rerio*	OECD 210	35 day(s)	
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
Octyl decyl dimethyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	25	*Daphnia magna*	OECD 211	21 day(s)	
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium chloride	NOEC	> 0.01-0.1	*Daphnia magna*	OECD 211		

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
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		No data available			-	
Octyl decyl dimethyl ammonium chloride		No data available				
ethanol		No data available			-	
tetrasodium ethylene diamine tetraacetate		No data available			-	
dimethyldioctylammonium chloride		No data available			-	
didecyldimethylammonium chloride		No data available			-	

Terrestrial toxicity

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

Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Effects observed

		(mg/kg dw soil)			time (days)	
alkyldimethylbenzylammoniumchloride		No data available			-	
ethanol		No data available			-	
tetrasodium ethylene diamine tetraacetate	LD_{50}	156	*Eisenia fetida*	OECD 207	14	
dimethyldioctylammonium chloride		No data available			-	
didecyldimethylammonium chloride		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		No data available			-	
ethanol		No data available			-	
tetrasodium ethylene diamine tetraacetate	NOEC	0.25 - 1.25			21	
dimethyldioctylammonium chloride		No data available			-	
didecyldimethylammonium chloride		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		No data available			-	
ethanol		No data available			-	
tetrasodium ethylene diamine tetraacetate		No data available			-	
dimethyldioctylammonium chloride		No data available			-	
didecyldimethylammonium 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
alkyldimethylbenzylammoniumchloride		No data available			-	
ethanol		No data available			-	
tetrasodium ethylene diamine tetraacetate		No data available			-	
dimethyldioctylammonium chloride		No data available			-	
didecyldimethylammonium 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
alkyldimethylbenzylammoniumchloride		No data available			-	
ethanol		No data available			-	
tetrasodium ethylene diamine tetraacetate		No data available			-	
dimethyldioctylammonium chloride		No data available			-	
didecyldimethylammonium chloride		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	DT_{50}	Method	Evaluation

		method			
alkyl alcohol ethoxylate					No data available
alkyldimethylbenzylammoniumchloride		Oxygen depletion	> 60%	OECD 301D	Readily biodegradable
Octyl decyl dimethyl ammonium chloride					No data available
ethanol					No data available
tetrasodium ethylene diamine tetraacetate					Readily biodegradable
dimethyldioctylammonium chloride		CO_2 production	86 % in 28 day(s)	OECD 301B	Readily biodegradable
didecyldimethylammonium chloride		Oxygen depletion	> 60%	OECD 301D	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
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	0.5 - 1.58	Method not given	No bioaccumulation expected	
Octyl decyl dimethyl ammonium chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	-13	Method not given	No bioaccumulation expected	
dimethyldioctylammonium chloride	< 3	Method not given	Low potential for bioaccumulation	
didecyldimethylammonium chloride	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
alkyl alcohol ethoxylate	No data available				
alkyldimethylbenzylammoniumchloride	0.5		Method not given	No bioaccumulation expected	
Octyl decyl dimethyl ammonium chloride	No data available				
ethanol	No data available				
tetrasodium ethylene diamine tetraacetate	1.8	*Lepomis macrochirus*	Method not given	Low potential for bioaccumulation	
dimethyldioctylammonium chloride	-			No bioaccumulation expected	
didecyldimethylammonium 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
alkyl alcohol ethoxylate	No data available				
alkyldimethylbenzylammoniumchloride	No data available				
Octyl decyl dimethyl ammonium 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				
didecyldimethylammonium 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.

SECTION 14: Transport information

ADG, IMO/IMDG, ICAO/IATA
14.1 UN number: 1903
14.2 UN proper shipping name:
Disinfectant, liquid, corrosive, n.o.s. (alkyldimethylbenzylammoniumchloride)
14.3 Transport hazard class(es):
Class: 8
Label(s): 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 73/78 and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:
Hazchem code: 2X
The product has been classified, labelled and packaged in accordance with the requirements of 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

Poison schedule	Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Inventory listing(s)	AICS (Australian Inventory of Chemical Substances): All components are listed on AICS, 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: MS31000103 **Version:** 01.0 **Revision:** 2016-01-20

Full text of the H and EUH phrases mentioned in section 3: Full text of the H phrases mentioned in section 3:
• H225 - Highly flammable liquid and vapour.
• H302 - Harmful if swallowed.
• H312 - Harmful in contact with skin.
• H314 - Causes severe skin burns and eye damage.
• H318 - Causes serious eye damage.
• H319 - Causes serious eye irritation.
• H332 - Harmful if inhaled.
• H400 - Very toxic to aquatic life.
• H410 - Very toxic to aquatic life with long lasting effects.
Additional information:
Respirators: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

Work practices - solvents: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

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).

Personal protective equipment guidelines: The recommendation for protective equipment contained within this report is provided as a guide

only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Health effects from exposure: It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Safety Data Sheet which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations and acronyms:
• ATE - Acute Toxicity Estimate
• AISE - The international Association for Soaps, Detergents and Maintenance Products
• DNEL - Derived No Effect Limit
• LC50 - Lethal Concentration, 50% / Median Lethal Concentration
• LD50 - Lethal Dose, 50% / Median Lethal dose
• EUH - CLP Specific hazard statement
• PBT - Persistent, Bioaccumulative and Toxic
• STOT-RE - Specific target organ toxicity (repeated exposure)
• STOT-SE - Specific target organ toxicity (single exposure)
• PNEC - Predicted No Effect Concentration
• REACH number - REACH registration number, without supplier specific part
• EC No. - European Community Number
• vPvB - very Persistent and very Bioaccumulative

End of Safety Data Sheet