



**CREW SMARTDOSE (RESTROOM FLOOR & SURFACE CLEANER - CONCENTRATE)**

Revision: 2019-05-12

Version: 01.0

**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: +64 9 813 9800; 0800 803 615 (toll free)

Fax: + 64 9 813 9801

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**

**HSNO Classification**

3.1C - Flammable liquids: medium hazard

6.1D - Acutely toxic (oral)

6.5B - Contact sensitisers

8.2C - Corrosive to dermal tissue

8.3A - Corrosive to ocular tissue

9.1A - Very ecotoxic in the aquatic environment

9.3C - Harmful to terrestrial vertebrates

**GHS Equivalent Classification**

Flammable liquids, Category 3

Acute toxicity, oral, Category 4

Skin sensitisation, Category 1

Skin corrosion, Category 1C

Serious eye damage, Category 1

Acute aquatic toxicity, Category 1

Terrestrial vertebrates, Category 3

**2.2 Label elements**



**Signal word:** Danger

**Hazard statements:**

H226 - Flammable liquid and vapour.

H314 - Causes severe skin burns and eye damage.

H302 - Harmful if swallowed.

H317 - May cause an allergic skin reaction.

H400 - Very toxic to aquatic life.

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H433 - Harmful to terrestrial vertebrates.

**Prevention statement(s):**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P233 - Keep container tightly closed.  
 P240 - Ground and bond container and receiving equipment.  
 P241 - Use explosion-proof electrical, ventilating or lighting equipment.  
 P242 - Use non-sparking tools.  
 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.  
 P363 - Wash contaminated clothing before reuse.  
 P370 + P378 - In case of fire: Use chemical powder 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

**HSNO Classification**

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

**GHS Equivalent Classification**

Acute aquatic toxicity, Category 3

**2.5 Label elements diluted product**

H402 - Harmful to aquatic life.

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

Ingredient(s)	CAS number	EC number	Weight percent
alkyl alcohol ethoxylate	68131-39-5	[4]	10-30
alkyldimethylbenzylammoniumchloride	68424-85-1	270-325-2	3-10
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	32426-11-2	251-035-5	3-10
tetrasodium ethylene diamine tetraacetate	64-02-8	200-573-9	3-10
ethanol	64-17-5	200-578-6	3-10
dimethyldioctylammonium chloride	5538-94-3	226-901-0	3-10
didecyldimethylammonium chloride	7173-51-5	230-525-2	3-10
sodium hydroxide	1310-73-2	215-185-5	0.1-1
terpineol	8000-41-7	232-268-1	0.1-1

[4] Polymer.

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**

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

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. 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, 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**

Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). 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 flames and hot surfaces. No smoking. Keep away from heat. Take precautionary measures against static discharges.

**CREW SMARTDOSE (RESTROOM FLOOR & SURFACE CLEANER - CONCENTRATE)****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. Handle and open container with care. 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. Take off 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 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.

**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	1000 ppm 1880 mg/m <sup>3</sup>		
sodium hydroxide			2 mg/m <sup>3</sup>

Biological limit values, if available:

**8.2 Exposure controls**

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

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

*Normal use conditions are assumed for this section.*

*Recommended safety measures for handling the undiluted product:*

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

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

**Appropriate organisational controls:** Avoid direct contact and/or splashes where possible. Train personnel.

**Personal protective equipment**

**Eye / face protection:** Safety glasses or goggles (EN 166). 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:** No special requirements under normal use conditions.

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (%):** 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:** No special requirements under normal use conditions.

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

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**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

	<b>Method / remark</b>
<b>Physical State:</b> Liquid	
<b>Colour:</b> Clear Dark Green	
<b>Odour:</b> Fresh Slightly perfumed	
<b>Odour threshold:</b> Not applicable	
<b>pH:</b> ≈ 7.25 (neat)	ISO 4316
<b>Melting point/freezing point (°C):</b> Not determined	Not relevant to classification of this product
<b>Initial boiling point and boiling range (°C):</b> Not determined	
<b>Flammability (liquid):</b> Flammable.	
<b>Flash point (°C):</b> ≈ 54	closed cup
<b>Sustained combustion:</b> No ( UN Manual of Tests and Criteria, section 32, L.2 )	
<b>Evaporation rate:</b> Not determined	Not relevant to classification of this product
<b>Flammability (solid, gas):</b> Not applicable to liquids	
<b>Upper/lower flammability limit (%):</b> Not determined	
<b>Vapour pressure:</b> Not determined	
<b>Vapour density:</b> Not determined	Not relevant to classification of this product
<b>Relative density:</b> ≈ 1.02 (20 °C)	OECD 109 (EU A.3)
<b>Solubility in / Miscibility with Water:</b> Fully miscible	
<b>Partition coefficient: n-octanol/water</b> No information available. Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3	
<b>Autoignition temperature:</b> Not determined	
<b>Decomposition temperature:</b> Not applicable.	
<b>Viscosity:</b> ≈ 0 mPa.s (20 °C)	
<b>Explosive properties:</b> Not explosive. Vapours may form explosive mixtures with air.	
<b>Oxidising properties:</b> 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 action to prevent static discharges.

### 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): 1300

ATE - Dermal (mg/kg): >5000

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

## CREW SMARTDOSE (RESTROOM FLOOR &amp; SURFACE CLEANER - CONCENTRATE)

**Skin irritation and corrosivity****Result:** Skin corrosive 1B**Method:** Weight of Evidence

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 <sub>50</sub>	398	Rat		
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	≥ 1780	Rat	Non guideline test	
ethanol	LD <sub>50</sub>	5000	Rat	OECD 401 (EU B.1)	
dimethyldioctylammonium chloride	LD <sub>50</sub>	> 300-2000	Rat	Read across	-
didecyldimethylammonium chloride	LD <sub>50</sub>	238	Rat	Method not given	
sodium hydroxide		No data available			
terpineol		No data available			

## Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	LD <sub>50</sub>	3412	Rabbit	Method not given	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	> 5000	Rabbit	Method not given	
ethanol	LD <sub>50</sub>	> 10000	Rabbit	OECD 402 (EU B.3)	
dimethyldioctylammonium chloride		No data available			
didecyldimethylammonium chloride		No data available			
sodium hydroxide	LD <sub>50</sub>	1350	Rabbit	Method not given	
terpineol		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			
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
tetrasodium ethylene diamine tetraacetate	LC <sub>50</sub>	≥ 1 (dust)	Rat	OECD 403 (EU B.2)	6
ethanol	LC <sub>50</sub>	> 1800	Rat	Non guideline test	4
dimethyldioctylammonium chloride		No data available			
didecyldimethylammonium chloride		No data available			
sodium hydroxide		No data available			
terpineol		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	Rabbit	Method not given	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	Non guideline test	
ethanol	No data available			
dimethyldioctylammonium chloride	Corrosive		Method not given	
didecyldimethylammonium chloride	Corrosive	Rabbit	OECD 404 (EU B.4)	
sodium hydroxide	Corrosive	Rabbit	Method not given	
terpineol	No data available			

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## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	Severe damage		Method not given	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	
ethanol	No data available			
dimethyldioctylammonium chloride	No data available			
didecyldimethylammonium chloride	No data available			
sodium hydroxide	Corrosive	Rabbit	Method not given	
terpineol	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			
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
ethanol	No data available			
dimethyldioctylammonium chloride	No data available			
didecyldimethylammonium chloride	No data available			
sodium hydroxide	No data available			
terpineol	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	Guinea pig	OECD 406 (EU B.6) / Buehler test	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
ethanol	No data available			
dimethyldioctylammonium chloride	No data available			
didecyldimethylammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
sodium hydroxide	Not sensitising		Human repeated patch test	
terpineol	No data available			

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
alkyldimethylbenzylammoniumchloride	No data available			
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
ethanol	No data available			
dimethyldioctylammonium chloride	No data available			
didecyldimethylammonium chloride	No data available			
sodium hydroxide	No data available			
terpineol	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 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	
tetrasodium ethylene diamine tetraacetate	No evidence for mutagenicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
ethanol	No data available		No data available	
dimethyldioctylammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) draft OECD 487 Read across	No data available	

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didecyldimethylammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476	No data available	
sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)
terpineol	No data available		No data available	

## Carcinogenicity

Ingredient(s)	Effect
alkyl alcohol ethoxylate	No data available
alkyldimethylbenzylammoniumchloride	No data available
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence
ethanol	No data available
dimethyldioctylammonium chloride	No data available
didecyldimethylammonium chloride	No data available
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
terpineol	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				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride			No data available				
tetrasodium ethylene diamine tetraacetate			No data available				No evidence for reproductive toxicity
ethanol			No data available				
dimethyldioctylammonium chloride			No data available				
didecyldimethylammonium chloride			No data available				
sodium hydroxide			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
terpineol			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				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
ethanol		No data available				
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
sodium hydroxide		No data available				
terpineol		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				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				



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ethanol		No data available				
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
sodium hydroxide		No data available				
terpineol		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				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
ethanol		No data available				
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
sodium hydroxide		No data available				
terpineol		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					
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride			No data available					
tetrasodium ethylene diamine tetraacetate			No data available					
ethanol			No data available					
dimethyldioctylammonium chloride			No data available					
didecyldimethylammonium chloride			No data available					
sodium hydroxide			No data available					
terpineol			No data available					

## STOT-single exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol ethoxylate	No data available
alkyldimethylbenzylammoniumchloride	No data available
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available
tetrasodium ethylene diamine tetraacetate	No data available
ethanol	No data available
dimethyldioctylammonium chloride	No data available
didecyldimethylammonium chloride	No data available
sodium hydroxide	No data available
terpineol	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol ethoxylate	No data available
alkyldimethylbenzylammoniumchloride	No data available
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available
tetrasodium ethylene diamine tetraacetate	Respiratory tract
ethanol	No data available
dimethyldioctylammonium chloride	No data available
didecyldimethylammonium chloride	No data available
sodium hydroxide	No data available

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terpineol	No data available
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**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 <sub>50</sub>	0.515	<i>Fish</i>	Method not given	96
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
tetrasodium ethylene diamine tetraacetate	LC <sub>50</sub>	> 100	<i>Lepomis macrochirus</i>	OPP 72-1, static (EPA)	96
ethanol	LC <sub>50</sub>	8150	<i>Alburnus alburnus</i>	Method not given	96
dimethyldioctylammonium chloride	LC <sub>50</sub>	0.35	<i>Oncorhynchus mykiss</i>	EPA-OPPTS 850.1075	96
didecyldimethylammonium chloride	LC <sub>50</sub>	0.97	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96
sodium hydroxide	LC <sub>50</sub>	35	<i>Various species</i>	Method not given	96
terpineol		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	EC <sub>50</sub>	0.016	<i>Daphnia</i>	Method not given	48
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
tetrasodium ethylene diamine tetraacetate	EC <sub>50</sub>	> 100	<i>Daphnia magna Straus</i>	DIN 38412, Part 11	48
ethanol	EC <sub>50</sub>	9268 - 14221	<i>Daphnia magna Straus</i>	Method not given	48
dimethyldioctylammonium chloride	EC <sub>50</sub>	> 0.01-0.1	<i>Daphnia magna Straus</i>	Read across	48
didecyldimethylammonium chloride	EC <sub>50</sub>	0.053	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
sodium hydroxide	EC <sub>50</sub>	40.4	<i>Ceriodaphnia sp.</i>	Method not given	48
terpineol		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate		No data available			
alkyldimethylbenzylammoniumchloride	EC <sub>50</sub>	0.02	<i>Selenastrum capricornutum</i>	OECD 201 (EU C.3)	72
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
tetrasodium ethylene diamine tetraacetate	EC <sub>50</sub>	> 100	<i>Scenedesmus obliquus</i>	88/302/EEC, Part C, static	72
ethanol	EC <sub>0</sub>	5000	<i>Scenedesmus quadricauda</i>	Method not given	168
dimethyldioctylammonium chloride	IC <sub>50</sub>	> 0.01-0.1	<i>Not specified</i>	Read across	72
didecyldimethylammonium chloride	EC <sub>50</sub>	0.053	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72

## CREW SMARTDOSE (RESTROOM FLOOR &amp; SURFACE CLEANER - CONCENTRATE)

sodium hydroxide	EC <sub>50</sub>	22	<i>Photobacterium phosphoreum</i>	Method not given	0.25
terpineol		No data available			

## 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			-
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
tetrasodium ethylene diamine tetraacetate		No data available			-
ethanol		No data available			-
dimethyldioctylammonium chloride		No data available			-
didecyldimethylammonium chloride		No data available			-
sodium hydroxide		No data available			-
terpineol		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 <sub>20</sub>	5	<i>Activated sludge</i>	OECD 209	0.5 hour(s)
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available			
tetrasodium ethylene diamine tetraacetate	EC <sub>20</sub>	> 500	<i>Activated sludge</i>	OECD 209	0.5 hour(s)
ethanol	EC <sub>0</sub>	6500	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
dimethyldioctylammonium chloride		No data available			
didecyldimethylammonium chloride		No data available			
sodium hydroxide		No data available			
terpineol		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				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	≥ 36.9	<i>Brachydanio rerio</i>	OECD 210	35 day(s)	
ethanol		No data available				
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
sodium hydroxide		No data available				
terpineol		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	NOEC	0.025	<i>Daphnia magna</i>	OECD 211	21 day(s)	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data				

## CREW SMARTDOSE (RESTROOM FLOOR &amp; SURFACE CLEANER - CONCENTRATE)

		available				
tetrasodium ethylene diamine tetraacetate	NOEC	25	<i>Daphnia magna</i>	OECD 211	21 day(s)	
ethanol		No data available				
dimethyldioctylammonium chloride		No data available				
didecyldimethylammonium chloride	NOEC	> 0.01-0.1	<i>Daphnia magna</i>	OECD 211	21 day(s)	
sodium hydroxide		No data available				
terpineol		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
alkyl alcohol ethoxylate		No data available				
alkyldimethylbenzylammoniumchloride		No data available			-	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride		No data available				
tetrasodium ethylene diamine tetraacetate		No data available			-	
ethanol		No data available			-	
dimethyldioctylammonium chloride		No data available			-	
didecyldimethylammonium chloride		No data available			-	
sodium hydroxide		No data available			-	
terpineol		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
alkyldimethylbenzylammoniumchloride		No data available			-	
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	156	<i>Eisenia fetida</i>	OECD 207	14	
ethanol		No data available			-	
dimethyldioctylammonium chloride		No data available			-	
didecyldimethylammonium chloride		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - plants, if available:

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

Terrestrial toxicity - birds, if available:

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

## CREW SMARTDOSE (RESTROOM FLOOR &amp; SURFACE CLEANER - CONCENTRATE)

		available				
didecyldimethylammonium chloride		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

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

Terrestrial toxicity - soil bacteria, if available:

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

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

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
sodium hydroxide	13 second(s)	Method not given	Rapidly photodegradable	

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
alkyl alcohol ethoxylate				OECD 301B	Readily biodegradable
alkyldimethylbenzylammoniumchloride		Oxygen depletion	> 60%	Read across	Readily biodegradable
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride					Readily biodegradable
tetrasodium ethylene diamine tetraacetate					Not readily biodegradable.
ethanol				OECD 301B	Readily biodegradable
dimethyldioctylammonium chloride		CO <sub>2</sub> production	86 % in 28 day(s)	OECD 301B	Readily biodegradable
didecyldimethylammonium chloride		Oxygen depletion	> 60%	OECD 301D	Readily biodegradable
sodium hydroxide					Not applicable (inorganic substance)
terpineol				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	2.88	OECD 107	No bioaccumulation expected	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available			

## CREW SMARTDOSE (RESTROOM FLOOR &amp; SURFACE CLEANER - CONCENTRATE)

tetrasodium ethylene diamine tetraacetate	-13	Method not given	No bioaccumulation expected	
ethanol	-0.35	Weight of evidence		
dimethyldioctylammonium chloride	< 3	Method not given	Low potential for bioaccumulation	
didecyldimethylammonium chloride	No data available			
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	
terpineol	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	
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available				
tetrasodium ethylene diamine tetraacetate	1.8	<i>Lepomis macrochirus</i>	Method not given	Low potential for bioaccumulation	
ethanol	No data available				
dimethyldioctylammonium chloride	-			No bioaccumulation expected	
didecyldimethylammonium chloride	2.1		Method not given	No bioaccumulation expected	
sodium hydroxide	No data available				
terpineol	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
alkyl alcohol ethoxylate	No data available				
alkyldimethylbenzylammoniumchloride	No data available				
1-Decanaminium, N,N-dimethyl-N-octyl-, chloride	No data available				
tetrasodium ethylene diamine tetraacetate	No data available				Adsorption to solid soil phase is not expected
ethanol	No data available				
dimethyldioctylammonium chloride	No data available				
didecyldimethylammonium chloride	No data available				
sodium hydroxide	No data available				Mobile in soil
terpineol	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: 1903

14.2 UN proper shipping name:

Disinfectant, liquid, corrosive, n.o.s. ( quaternary ammonium compounds )

14.3 Transport hazard class(es):

**CREW SMARTDOSE (RESTROOM FLOOR & SURFACE CLEANER - CONCENTRATE)**

**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 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

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

<b>HSNO Approval Number</b>	HSR002529.
<b>Group standard</b>	Cleaning products (Flammable, Corrosive) Group Standard 2017
<b>Inventory Listing(s)</b>	New Zealand: NZIoC (New Zealand Inventory of Chemicals) All components are listed on the NZIoC inventory, or are exempt

## SECTION 16: Other information

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

**SDS code:** MS32000606

**Version:** 01.0

**Revision:** 2019-05-12

**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**