



SHIELD CITRUS

Revision: 2018-08-29

Version: 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier

Product name: SHIELD CITRUS

1.2 Recommended use and restrictions on use

Identified uses:

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

Call 0800 243 622 (24 hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

HSNO Classification

6.3B - Mildly irritating to the skin

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

GHS Equivalent Classification

Skin irritation, Category 3

Acute aquatic toxicity, Category 2

2.2 Label elements

Hazard statements:

H316 - Causes mild skin irritation.

H401 - Toxic to aquatic life.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS number	EC number	Weight percent
alkyldimethylbenzylammoniumchloride	68424-85-1	270-325-2	1-3

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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation:

Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

Eye contact:

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

Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious

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Self-protection of first aider: person. Get medical attention or advice if you feel unwell.
Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: No known effects or symptoms in normal use.
Skin contact: No known effects or symptoms in normal use.
Eye contact: No known effects or symptoms in normal use.
Ingestion: No known effects or symptoms in normal use.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

Poison Information Center: Call 0800 764 766 (0800 POISON)

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

5.4 Hazchem code

None allocated

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

No special measures required.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

6.4 Reference to other sections

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

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

No special precautions required.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Use personal protective equipment as required. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging. Keep from freezing. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Workplace exposure limits**

Air limit values, if available:

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Biological limit values, if available:

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet. If available, please refer to the product information sheet for application and handling instructions. Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

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

Personal protective equipment

Eye / face protection: Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product (EN 166).

Hand protection: No special requirements under normal use conditions.

Body protection: No special requirements under normal use conditions.

Respiratory protection: 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, Light Yellow	
Odour: Slightly perfumed	
Odour threshold: Not applicable	
pH: ≈ 7 (neat) (20 °C)	ISO 4316
Dilution pH: ≈ 7 (5%)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	
Flash point (°C): Not applicable.	
Sustained combustion: Not applicable. (UN Manual of Tests and Criteria, section 32, L.2)	
Evaporation rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids	
Upper/lower flammability limit (%): Not determined	
Vapour pressure: Not determined	
Vapour density: Not determined	Not relevant to classification of this product
Relative density: ≈ 1.0 (20 °C)	OECD 109 (EU A.3)
Solubility in / Miscibility with Water: Not miscible or difficult to mix	
Partition coefficient: n-octanol/water No information available. Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3	
Autoignition temperature: Not determined	
Decomposition temperature: Not applicable.	
Viscosity: Not determined	
Explosive properties: Not explosive.	
Oxidising properties: Not oxidising	

9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals: Not corrosive

SECTION 10: Stability and reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

None known under normal storage and use conditions.

10.5 Incompatible materials

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): >5000

ATE - Dermal (mg/kg): >5000

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)
alkyldimethylbenzylammoniumchloride	LD ₅₀	398	Rat		

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
alkyldimethylbenzylammoniumchloride	LD ₅₀	3412	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyldimethylbenzylammoniumchloride		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyldimethylbenzylammoniumchloride	Corrosive	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyldimethylbenzylammoniumchloride	Severe damage		Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyldimethylbenzylammoniumchloride	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
alkyldimethylbenzylammoniumchloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
alkyldimethylbenzylammoniumchloride	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
alkyldimethylbenzylammoniumchloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 476 OECD 473	No evidence of genotoxicity, negative test results	OECD 474 (EU B.12)

Carcinogenicity

Ingredient(s)	Effect
alkyldimethylbenzylammoniumchloride	No data available

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value	Species	Method	Exposure	Remarks and other effects
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			(mg/kg bw/d)			time	reported
alkyldimethylbenzylammoniumchloride			No data available				

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
alkyldimethylbenzylammoniumchloride		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
alkyldimethylbenzylammoniumchloride		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
alkyldimethylbenzylammoniumchloride		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
alkyldimethylbenzylammoniumchloride			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
alkyldimethylbenzylammoniumchloride	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
alkyldimethylbenzylammoniumchloride	No data available

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

Potential adverse health effects and symptoms

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

SECTION 12: Ecological information**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)
alkyldimethylbenzylammoniumchloride	LC ₅₀	0.515	<i>Fish</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyldimethylbenzylammoniumchloride	EC ₅₀	0.016	<i>Daphnia</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyldimethylbenzylammoniumchloride	EC ₅₀	0.02	<i>Selenastrum capricornutum</i>	OECD 201 (EU C.3)	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
alkyldimethylbenzylammoniumchloride		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value	Inoculum	Method	Exposure

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		(mg/l)			time
alkyldimethylbenzylammoniumchloride	EC ₂₀	5	Activated sludge	OECD 209	0.5 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyldimethylbenzylammoniumchloride		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyldimethylbenzylammoniumchloride	NOEC	0.025	<i>Daphnia magna</i>	OECD 211	21 day(s)	

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		No data available			-	

Terrestrial toxicity

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

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		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			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		No data available			-	

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
alkyldimethylbenzylammoniumchloride		Oxygen depletion	> 60%	Read across	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

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

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Ingredient(s)	Value	Method	Evaluation	Remark
alkyldimethylbenzylammoniumchloride	2.88	OECD 107	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
alkyldimethylbenzylammoniumchloride	0.5		Method not given	No bioaccumulation expected	

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
alkyldimethylbenzylammoniumchloride	No data available				

12.5 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products:

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

Empty packaging**Recommendation:**

Dispose of observing national or local regulations.

SECTION 14: Transport information**Land transport, Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)**

14.1 UN number: Non-dangerous goods

14.2 UN proper shipping name: Non-dangerous goods

14.3 Transport hazard class(es): Non-dangerous goods

14.4 Packing group: Non-dangerous goods

14.5 Environmental hazards: Non-dangerous goods

Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user: Non-dangerous goods

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

Non-dangerous goods

Other relevant information:

Hazchem code: None allocated

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

SECTION 15: Regulatory information

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

HSNO Approval Number

HSR002530.

Group standard

Cleaning Products (Subsidiary Hazard) Group Standard 2017

Inventory Listing(s)

New Zealand: NZIoC (New Zealand Inventory of Chemicals)

All components are listed on the NZIoC inventory, or are exempt

SECTION 16: Other information

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

SDS code: MS32000276**Version:** 01.0**Revision:** 2018-08-29**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