Safety Data Sheet

CLAX REVOFLOW DEOSOFT BREEZE 54X1

Revision: 2023-03-22 **Version:** 01.1

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier
Product name: CLAX REVOFLOW DEOSOFT BREEZE 54X1

1.2 Recommended use and restrictions on use
Identified uses:
Fabric softener
Restrictions of use:
Uses other than those identified are not recommended

1.3 Details of the supplier
DIVERSEY NEW ZEALAND LTD.
24 Bancroft Crescent, Glendene, Auckland, 0602, New Zealand
Telephone: 0800 803 615 (toll free)

Website: www.diversey.com

1.4 Emergency telephone number
Seek medical advice (show the label or safety data sheet where possible)
Call 0800 243 622 (24 hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Flammable liquids, Category 4
Skin irritation, Category 2
Eye irritation, Category 2A
Chronic aquatic toxicity, Category 3

2.2 Label elements

Signal word: Warning

Hazard statements:
H315 + H319 - Causes skin and serious eye irritation.
H227 - Combustible liquid.
H412 - Harmful to aquatic life with long lasting effects.

Prevention statement(s):
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P280 - Wear protective gloves, protective clothing and eye or face protection.

Response statement(s):
P332 + P313 - If skin irritation occurs: Get medical advice or attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.
P321 - Specific treatment (see supplemental first aid instructions on this label).
P362 - Take off contaminated clothing.
P370 + P378 - In case of fire: Use chemical powder to extinguish.

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

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 (% w/w): 0.03

Not classified as hazardous

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS#	EC number	Weight percent
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	157905-74-3	931-216-1	>= 60
1,4-dioxacycloheptadecane-5,17-dione	105-95-3	203-347-8	0.1-1
pentyl salicylate	2050-08-0	218-080-2	0.1-1
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	259-174-3	0.1-1
alpha-hexylcinnamaldehyde	101-86-0	202-983-3	0.1-1
2,6-dimethyloct-7-en-2-ol	18479-58-8	242-362-4	0.1-1
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	66068-84-6	266-100-3	0.1-1
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	111879-80-2	422-320-3	0.1-1
2-methylundecanal	110-41-8	203-765-0	0.1-1

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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

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: 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. If eye irritation persists: Get medical advice or attention. 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 person. 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: 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 irritation.

Eye contact: Causes severe irritation.

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

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 required to protect the environment:
For environmental exposure controls see subsection 8.2.

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

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Store in a well-ventilated place. Store in a closed container. Keep only in original packaging. 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:

Biological limit values, if available:

8.2 Exposure controls

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

Recommended safety measures for handling the undiluted product:
Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls:	If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.
Appropriate organisational controls:	Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection:	Safety glasses or goggles (AS/NZS 1337.1).
Hand protection:	Chemical-resistant protective gloves (AS/NZS 2161.10). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature. Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm

Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

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

Respiratory protection: 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 (% w/w): 0.03

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: No special requirements under normal use conditions.
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions
Respiratory protection: No special requirements under normal use conditions.

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

	Method / remark
Physical state: Liquid	
Colour: Clear , Colourless	
Odour: Perfumed	
Odour threshold: Not applicable	
pH: ≈ 3 (neat)	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	
Flammability (liquid): Combustible.	
Flash point (°C): > 70 °C	closed cup
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	
Lower and upper explosion limit/flammability limit (%): Not determined	
Vapour pressure: Not determined	
Relative vapour density Not determined	Not relevant to classification of this product
Relative density: ≈ 1.01 (20 °C)	OECD 109 (EU A.3)
Solubility in / Miscibility with water: Fully miscible	
Partition coefficient: n-octanol/water No information available.	

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
Viscosity: ≈ 336 mPa.s (20 °C)
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
None known under normal storage and use conditions.

10.5 Incompatible materials
Reacts with alkali. Keep away from products containing chlorine-based bleaching agents or sulphites.

10.6 Hazardous decomposition products
None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture data:.

Relevant calculated ATE(s):
ATE - Oral (mg/kg): >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)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	LD_{50}	> 2000	Rat	Method not given	
1,4-dioxacycloheptadecane-5,17-dione		No data available			
pentyl salicylate		2000			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available			
alpha-hexylcinnamaldehyde		3100			
2,6-dimethyloct-7-en-2-ol		3600			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	LD_{50}	> 2000	Rat	OECD 423 (EU B.1 tris)	
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	LD_{50}	> 2000	Rat	OECD 423 (EU B.1 tris)	
2-methylundecanal	LD_{50}	> 5000	Rat	Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	LD_{50}	> 2000	Rat		
1,4-dioxacycloheptadecane-5,17-dione		No data available			
pentyl salicylate		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available			
alpha-hexylcinnamaldehyde		No data available			
2,6-dimethyloct-7-en-2-ol		No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available			
2-methylundecanal	LD_{50}	> 5000	Rabbit	Method not given	24 hours

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized		No data available			

1,4-dioxacycloheptadecane-5,17-dione		No data available			
pentyl salicylate		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available			
alpha-hexylcinnamaldehyde		No data available			
2,6-dimethyloct-7-en-2-ol		No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available			
2-methylundecanal		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	Irritant	Rabbit	Method not given	
1,4-dioxacycloheptadecane-5,17-dione	No data available			
pentyl salicylate	No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
2,6-dimethyloct-7-en-2-ol	No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available			
2-methylundecanal	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	Irritant	Rabbit	Method not given	
1,4-dioxacycloheptadecane-5,17-dione	No data available			
pentyl salicylate	No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
2,6-dimethyloct-7-en-2-ol	No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available			
2-methylundecanal	No data available			

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available			
1,4-dioxacycloheptadecane-5,17-dione	No data available			
pentyl salicylate	No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
2,6-dimethyloct-7-en-2-ol	No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available			
2-methylundecanal	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	Not sensitising	Guinea pig	Method not given	
1,4-dioxacycloheptadecane-5,17-dione	No data available			

pentyl salicylate	No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
2,6-dimethyloct-7-en-2-ol	No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available			
2-methylundecanal	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available			
1,4-dioxacycloheptadecane-5,17-dione	No data available			
pentyl salicylate	No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
2,6-dimethyloct-7-en-2-ol	No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available			
2-methylundecanal	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)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available		No data available	
1,4-dioxacycloheptadecane-5,17-dione	No data available		No data available	
pentyl salicylate	No data available		No data available	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available		No data available	
alpha-hexylcinnamaldehyde	No data available		No data available	
2,6-dimethyloct-7-en-2-ol	No data available		No data available	
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available		No data available	
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available		No data available	
2-methylundecanal	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available
1,4-dioxacycloheptadecane-5,17-dione	No data available
pentyl salicylate	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available
alpha-hexylcinnamaldehyde	No data available
2,6-dimethyloct-7-en-2-ol	No data available
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available
2-methylundecanal	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
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized			No data available				
1,4-dioxacycloheptadecane-5,17-dione			No data available				
pentyl salicylate			No data available				

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one			No data available				
alpha-hexylcinnamaldehyde			No data available				
2,6-dimethyloct-7-en-2-ol			No data available				
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol			No data available				
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one			No data available				
2-methylundecanal			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
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
1,4-dioxacycloheptadecane-5,17-dione		No data available				
pentyl salicylate		No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
2,6-dimethyloct-7-en-2-ol		No data available				
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available				
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available				
2-methylundecanal		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
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
1,4-dioxacycloheptadecane-5,17-dione		No data available				
pentyl salicylate		No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
2,6-dimethyloct-7-en-2-ol		No data available				
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available				
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available				
2-methylundecanal		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
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
1,4-dioxacycloheptadecane-5,17-dione		No data available				
pentyl salicylate		No data				

		available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
2,6-dimethyloct-7-en-2-ol		No data available				
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available				
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available				
2-methylundecanal		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
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized			No data available					
1,4-dioxacycloheptadecane-5,17-dione			No data available					
pentyl salicylate			No data available					
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one			No data available					
alpha-hexylcinnamaldehyde			No data available					
2,6-dimethyloct-7-en-2-ol			No data available					
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol			No data available					
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one			No data available					
2-methylundecanal			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available
1,4-dioxacycloheptadecane-5,17-dione	No data available
pentyl salicylate	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available
alpha-hexylcinnamaldehyde	No data available
2,6-dimethyloct-7-en-2-ol	No data available
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available
2-methylundecanal	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available
1,4-dioxacycloheptadecane-5,17-dione	No data available
pentyl salicylate	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available
alpha-hexylcinnamaldehyde	No data available
2,6-dimethyloct-7-en-2-ol	No data available
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available
a mixture of: (E)-oxacyclohexadec-12-en-2-one	No data available

(E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	
2-methylundecanal	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)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	LC_{50}	1.91	*Fish*	OECD 203 (EU C.1)	96
1,4-dioxacycloheptadecane-5,17-dione		No data available			
pentyl salicylate		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	LC_{50}	1.3	*Lepomis macrochirus*	OECD 203, semi-static	96
alpha-hexylcinnamaldehyde		No data available			
2,6-dimethyloct-7-en-2-ol	LC_{50}	27.8	*Oncorhynchus mykiss*	OECD 203, static	96
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available			
2-methylundecanal		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	EC_{50}	2.23	*Daphnia magna Straus*	OECD 202 (EU C.2)	48
1,4-dioxacycloheptadecane-5,17-dione		No data available			
pentyl salicylate		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	EC_{50}	1.38	*Daphnia*	OECD 202, semi-static	48
alpha-hexylcinnamaldehyde		No data available			
2,6-dimethyloct-7-en-2-ol	EC_{50}	38	*Daphnia*	OECD 202, static	48
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available			
2-methylundecanal		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	EC_{50}	2.14	*Not specified*	OECD 201 (EU C.3)	72
1,4-dioxacycloheptadecane-5,17-dione		No data available			
pentyl salicylate		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	EC_{50}	> 2.6	*Desmodesmus subspicatus*	OECD 201, static	72
alpha-hexylcinnamaldehyde		No data			

		available			
2,6-dimethyloct-7-en-2-ol	E_b C_{50}	65	*Desmodesmus subspicatus*	OECD 201, static	72
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available			
2-methylundecanal		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized		No data available			
1,4-dioxacycloheptadecane-5,17-dione		No data available			
pentyl salicylate		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available			
alpha-hexylcinnamaldehyde		No data available			
2,6-dimethyloct-7-en-2-ol		No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available			
2-methylundecanal		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized		No data available			
1,4-dioxacycloheptadecane-5,17-dione		No data available			
pentyl salicylate		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available			
alpha-hexylcinnamaldehyde		No data available			
2,6-dimethyloct-7-en-2-ol		No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available			
2-methylundecanal		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
1,4-dioxacycloheptadecane-5,17-dione		No data available				
pentyl salicylate		No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
2,6-dimethyloct-7-en-2-ol		No data available				
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available				
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available				
2-methylundecanal		No data				

		available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
1,4-dioxacycloheptadecane-5,17-dione		No data available				
pentyl salicylate		No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
2,6-dimethyloct-7-en-2-ol		No data available				
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol		No data available				
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one		No data available				
2-methylundecanal		No data available				

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

Terrestrial toxicity

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

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if 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
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	Activated sludge, aerobe	CO_2 production	> 60% in 28 day(s)	OECD 301B	Readily biodegradable
1,4-dioxacycloheptadecane-5,17-dione				OECD 301B	Readily biodegradable
pentyl salicylate					Not readily biodegradable.
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one					Not readily biodegradable.
alpha-hexylcinnamaldehyde					Not readily biodegradable.
2,6-dimethyloct-7-en-2-ol				OECD 301B	Readily biodegradable
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	Activated sludge, aerobe		0.85% in 28 day(s)	OECD 301F	Not readily biodegradable.
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	Activated sludge, aerobe	Oxygen depletion	96.7% in 28 day(s)	OECD 301F	Readily biodegradable
2-methylundecanal				OECD 301F	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
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available			
1,4-dioxacycloheptadecane-5,17-dione	No data available			
pentyl salicylate	No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
2,6-dimethyloct-7-en-2-ol	No data available			
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl) cyclohexan-1-ol	No data available			
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available			
2-methylundecanal	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available				
1,4-dioxacycloheptadecane-5,17-dione	No data available				
pentyl salicylate	No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available				
alpha-hexylcinnamaldehyde	No data available				
2,6-dimethyloct-7-en-2-ol	No data available				
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available				
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available				
2-methylundecanal	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
9-octadecenoic acid (Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized	No data available				
1,4-dioxacycloheptadecane-5,17-dione	No data available				
pentyl salicylate	No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available				
alpha-hexylcinnamaldehyde	No data available				
2,6-dimethyloct-7-en-2-ol	No data available				
4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexan-1-ol	No data available				
a mixture of: (E)-oxacyclohexadec-12-en-2-one (E)-oxacyclohexadec-13-en-2-one a) (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one	No data available				
2-methylundecanal	No data available				

12.5 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Empty packaging

Recommendation: Dispose of observing national or local regulations.

Suitable cleaning agents: Water, if necessary with cleaning agent.

SECTION 14: Transport information

ADG, IMO/IMDG, ICAO/IATA

14.1 UN number or ID number: 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
Marine pollutant: Yes
14.6 Special precautions for user: Non-dangerous goods
14.7 Maritime transport in bulk according to IMO instruments: Non-dangerous goods

Other relevant information:
Hazchem code: None allocated

SECTION 15: Regulatory information

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

HSNO Approval Number HSR002525.

Group standard Cleaning Products (Combustible) Group Standard 2020
Substances covered under this Group Standard will not require an approved handler.

Inventory Listing(s) New Zealand: NZIoC (New Zealand Inventory of Chemicals)
All components are listed on the NZIoC inventory, or are exempt

HSNO Classification
3.1D - Flammable liquids: low hazard
6.3A - Irritating to the skin
6.4A - Irritating to the eye
9.1C - Harmful in the aquatic environment

SECTION 16: Other information

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

SDS code: MS32000425 **Version:** 01.1 **Revision:** 2023-03-22

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 - Non GHS 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 - Organisation for Economic Cooperation and Development

End of Safety Data Sheet