



## VIREX II J-FLEX

Revision: 2023-09-06

Version: 02.0

### SECTION 1: Identification of the substance/mixture and supplier

#### 1.1 Product identifier

**Product name:** VIREX II J-FLEX

#### 1.2 Recommended use and restrictions on use

**Identified uses:**

Hospital grade disinfectant, cleaner and deodorant

**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](http://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

Skin corrosion, Category 1B

Serious eye damage, Category 1

Acute toxicity, oral, Category 4

Skin sensitisation, Category 1

Flammable liquids, Category 4

Acute aquatic toxicity, Category 1

Chronic aquatic toxicity, Category 2

#### 2.2 Label elements



**Signal word:** Danger

#### Hazard statements:

H227 - Combustible liquid.

H314 - Causes severe skin burns and eye damage.

H302 - Harmful if swallowed.

H317 - May cause an allergic skin reaction.

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

#### Prevention statement(s):

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P234 - Keep only in original packaging.

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):

## VIREX II J-FLEX

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).  
 P362 + P364 - Take off contaminated clothing and wash it before reuse.

**Storage statement(s):**

P405 - Store locked up.  
 P406 - Store in corrosive-resistant container with a resistant inner liner.  
 P403 + P235 - Store in a well-ventilated place. Keep cool.

**Disposal statement(s):**

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

**2.3 Other hazards**

No other hazards known.

**2.4 Classification diluted product:**

Recommended maximum concentration (% w/w): 0.39

Not classified as hazardous

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

Ingredient(s)	CAS#	EC number	Weight percent
Didecyldimethyl ammonium chloride	7173-51-5	230-525-2	3-10
n-alkyl dimethyl benzyl ammonium chloride	68424-85-1	270-325-2	3-10
ethanol	64-17-5	200-578-6	3-10
tetrasodium ethylene diamine tetraacetate	64-02-8	200-573-9	1-3
amines, coco alkyl dimethyl, N-oxides	61788-90-7	263-016-9	1-3
Carbonic acid, sodium salt (2:3)	533-96-0	208-580-9	1-3
p-mentha-1,4(8)-diene	586-62-9	209-578-0	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****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.

**Inhalation:**

Remove person to fresh air and keep comfortable for breathing. Get medical attention or advice if you feel unwell.

**Skin contact:**

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician.

**Eye contact:**

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

**Ingestion:**

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or 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.

## VIREX II J-FLEX

**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**

Wear suitable protective clothing. Wear eye/face protection. Wear suitable gloves.

**6.2 Environmental precautions**

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

**6.3 Methods and material for containment and cleaning up**

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

**6.4 Reference to other sections**

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

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

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 face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Do not breathe spray. Do not eat, drink or smoke when using this product. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local and national regulations. Store in a 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:

Ingredient(s)	Long term value(s)	Short term value(s)	Ceiling value(s)
ethanol	1000 ppm 1880 mg/m <sup>3</sup>		

## VIREX II J-FLEX

Biological limit values, if available:

## 8.2 Exposure controls

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

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

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

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

### Personal protective equipment

**Eye / face protection:** Safety glasses or goggles (AS/NZS 1337.1). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

**Hand protection:** Chemical-resistant protective gloves (AS/NZS 2161.10). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

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

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

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

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

**Respiratory protection:** If exposure to liquid particles or splashes cannot be avoided use: half mask (EN 140) with particle filter P2 (EN 143) or full-face mask (EN 136) with particle filter P1 (EN 143) Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen. Specific applications tools may be available to limit exposure. Please refer to the product information sheet for the possibilities. Apply technical measures to comply with the occupational exposure limits, if available.

**Environmental exposure controls:** Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

**Recommended maximum concentration (% w/w):** 0.39

**Appropriate engineering controls:** Use only in well ventilated areas.

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

### Personal protective equipment

**Eye / face protection:** No special requirements under normal use conditions.

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

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

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

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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

	Method / remark
<b>Physical state:</b> Liquid	
<b>Colour:</b> Clear , Blue	
<b>Odour:</b> Minty	
<b>Odour threshold:</b> Not applicable	
<b>pH:</b> $\approx 10.2$ (neat)	ISO 4316
<b>Dilution pH:</b> $\approx 9$ (1%)	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> Combustible.	
<b>Flash point (°C):</b> $\approx 86.1$ °C	closed cup
<b>Sustained combustion:</b> The product does not sustain combustion	Weight of evidence

## VIREX II J-FLEX

( UN Manual of Tests and Criteria, section 32, L.2 )

**Evaporation rate:** Not determined  
**Flammability (solid, gas):** Not applicable to liquids  
**Lower and upper explosion limit/flammability limit (%):** Not determined  
**Vapour pressure:** Not determined  
**Relative vapour density** No data available  
**Relative density:**  $\approx 1.00$  (20 °C)  
**Solubility in / Miscibility with water:** Fully miscible  
**Partition coefficient: n-octanol/water** No information available.

Not relevant to classification of this product

Not relevant to classification of this product  
OECD 109 (EU A.3)

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. 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**

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): 1000  
 ATE - Inhalatory, mists (mg/l): >5

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)
Didecyldimethyl ammonium chloride	LD <sub>50</sub>	238	Rat	Method not given	
n-alkyl dimethyl benzyl ammonium chloride	LD <sub>50</sub>	304.5	Rat		
ethanol	LD <sub>50</sub>	5000	Rat	OECD 401 (EU B.1)	
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	1780	Rat	OECD 401 (EU B.1)	
amines, coco alkyldimethyl, N-oxides	LD <sub>50</sub>	1064	Rat	OECD 401 (EU B.1)	
Carbonic acid, sodium salt (2:3)		No data available			
p-mentha-1,4(8)-diene		No data			

		available		
--	--	-----------	--	--

## Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
Didecyldimethyl ammonium chloride		No data available			
n-alkyl dimethyl benzyl ammonium chloride	LD <sub>50</sub>	3412	Rabbit	Method not given	
ethanol	LD <sub>50</sub>	> 10000	Rabbit	OECD 402 (EU B.3)	
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	> 5000	Rabbit	Method not given	
amines, coco alkyldimethyl, N-oxides		No data available			
Carbonic acid, sodium salt (2:3)		No data available			
p-mentha-1,4(8)-diene		No data available			

## Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Didecyldimethyl ammonium chloride		No data available			
n-alkyl dimethyl benzyl ammonium chloride		No data available			
ethanol	LC <sub>50</sub>	> 1800	Rat	Non guideline test	4
tetrasodium ethylene diamine tetraacetate	LC <sub>50</sub>	≥ 1-5 (dust)	Rat	OECD 403 (EU B.2)	6
amines, coco alkyldimethyl, N-oxides		No data available			
Carbonic acid, sodium salt (2:3)		No data available			
p-mentha-1,4(8)-diene		No data available			

## Irritation and corrosivity

## Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Didecyldimethyl ammonium chloride	Corrosive	Rabbit	OECD 404 (EU B.4)	
n-alkyl dimethyl benzyl ammonium chloride	Corrosive	Rabbit	Method not given	
ethanol	Not irritant	Rabbit	OECD 404 (EU B.4)	
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	OECD 404 (EU B.4)	
amines, coco alkyldimethyl, N-oxides	Irritant	Rabbit	OECD 404 (EU B.4)	
Carbonic acid, sodium salt (2:3)	No data available			
p-mentha-1,4(8)-diene	No data available			

## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Didecyldimethyl ammonium chloride	Severe damage			
n-alkyl dimethyl benzyl ammonium chloride	Severe damage		Method not given	
ethanol	Irritant	Rabbit	OECD 405 (EU B.5)	
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	
amines, coco alkyldimethyl, N-oxides	Severe damage	Rabbit	OECD 405 (EU B.5)	
Carbonic acid, sodium salt (2:3)	No data available			
p-mentha-1,4(8)-diene	No data available			

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Didecyldimethyl ammonium chloride	No data available			
n-alkyl dimethyl benzyl ammonium chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
amines, coco alkyldimethyl, N-oxides	No data available			
Carbonic acid, sodium salt (2:3)	No data available			
p-mentha-1,4(8)-diene	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
---------------	--------	---------	--------	-------------------

## VIREX II J-FLEX

Didecyldimethyl ammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test
n-alkyl dimethyl benzyl ammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test
ethanol	Not sensitising		
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT
amines, coco alkyl dimethyl, N-oxides	Not sensitising	Guinea pig	OECD 406 (EU B.6)
Carbonic acid, sodium salt (2:3)	No data available		
p-mentha-1,4(8)-diene	No data available		

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
Didecyldimethyl ammonium chloride	No data available			
n-alkyl dimethyl benzyl ammonium chloride	No data available			
ethanol	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
amines, coco alkyl dimethyl, N-oxides	No data available			
Carbonic acid, sodium salt (2:3)	No data available			
p-mentha-1,4(8)-diene	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)
Didecyldimethyl ammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476	No data available	
n-alkyl dimethyl benzyl ammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 476 OECD 473	No evidence of genotoxicity, negative test results	OECD 474 (EU B.12)
ethanol	No data available		No data available	
tetrasodium ethylene diamine tetraacetate	No evidence for mutagenicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
amines, coco alkyl dimethyl, N-oxides	No data available		No data available	
Carbonic acid, sodium salt (2:3)	No data available		No data available	
p-mentha-1,4(8)-diene	No data available		No data available	

## Carcinogenicity

Ingredient(s)	Effect
Didecyldimethyl ammonium chloride	No data available
n-alkyl dimethyl benzyl ammonium chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence
amines, coco alkyl dimethyl, N-oxides	No data available
Carbonic acid, sodium salt (2:3)	No data available
p-mentha-1,4(8)-diene	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
Didecyldimethyl ammonium chloride			No data available				
n-alkyl dimethyl benzyl ammonium chloride			No data available				
ethanol			No data available				
tetrasodium ethylene diamine tetraacetate			No data available				No evidence for reproductive toxicity
amines, coco alkyl dimethyl, N-oxides			No data available				
Carbonic acid, sodium salt (2:3)			No data available				
p-mentha-1,4(8)-diene			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
Didecyldimethyl ammonium chloride		No data available				

## VIREX II J-FLEX

n-alkyl dimethyl benzyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
amines, coco alkyldimethyl, N-oxides		No data available				
Carbonic acid, sodium salt (2:3)		No data available				
p-mentha-1,4(8)-diene		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
Didecyldimethyl ammonium chloride		No data available				
n-alkyl dimethyl benzyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
amines, coco alkyldimethyl, N-oxides		No data available				
Carbonic acid, sodium salt (2:3)		No data available				
p-mentha-1,4(8)-diene		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
Didecyldimethyl ammonium chloride		No data available				
n-alkyl dimethyl benzyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
amines, coco alkyldimethyl, N-oxides		No data available				
Carbonic acid, sodium salt (2:3)		No data available				
p-mentha-1,4(8)-diene		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
Didecyldimethyl ammonium chloride			No data available					
n-alkyl dimethyl benzyl ammonium chloride			No data available					
ethanol			No data available					
tetrasodium ethylene diamine tetraacetate			No data available					
amines, coco alkyldimethyl, N-oxides			No data available					
Carbonic acid, sodium salt (2:3)			No data available					
p-mentha-1,4(8)-diene			No data available					

## STOT-single exposure

Ingredient(s)	Affected organ(s)
Didecyldimethyl ammonium chloride	No data available
n-alkyl dimethyl benzyl ammonium chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	No data available
amines, coco alkyldimethyl, N-oxides	No data available
Carbonic acid, sodium salt (2:3)	No data available
p-mentha-1,4(8)-diene	No data available

## VIREX II J-FLEX

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
Didecyltrimethyl ammonium chloride	No data available
n-alkyl dimethyl benzyl ammonium chloride	No data available
ethanol	No data available
tetrasodium ethylene diamine tetraacetate	Respiratory tract
amines, coco alkyltrimethyl, N-oxides	No data available
Carbonic acid, sodium salt (2:3)	No data available
p-mentha-1,4(8)-diene	No data available

**Aspiration hazard**

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

**Potential adverse health effects and symptoms**

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

**SECTION 12: Ecological information****12.1 Toxicity**No data is available on the mixture .Substance data, where relevant and available, are listed below:**Aquatic short-term toxicity**

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Didecyltrimethyl ammonium chloride	LC <sub>50</sub>	0.97	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96
n-alkyl dimethyl benzyl ammonium chloride	LC <sub>50</sub>	0.515	<i>Fish</i>	Method not given	96
ethanol	LC <sub>50</sub>	8150	<i>Alburnus alburnus</i>	Method not given	96
tetrasodium ethylene diamine tetraacetate	LC <sub>50</sub>	> 100	<i>Lepomis macrochirus</i>	OPP 72-1, static (EPA)	96
amines, coco alkyltrimethyl, N-oxides	LC <sub>50</sub>	2.67	<i>Pimephales promelas</i>	Method not given	96
Carbonic acid, sodium salt (2:3)		No data available			
p-mentha-1,4(8)-diene		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Didecyltrimethyl ammonium chloride	EC <sub>50</sub>	0.053	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
n-alkyl dimethyl benzyl ammonium chloride	EC <sub>50</sub>	0.016	<i>Daphnia</i>	Method not given	48
ethanol	EC <sub>50</sub>	5012	<i>Daphnia magna Straus</i>	Method not given	48
tetrasodium ethylene diamine tetraacetate	EC <sub>50</sub>	140	<i>Daphnia magna Straus</i>	DIN 38412, Part 11	48
amines, coco alkyltrimethyl, N-oxides	EC <sub>50</sub>	3.1	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
Carbonic acid, sodium salt (2:3)		No data available			
p-mentha-1,4(8)-diene		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Didecyltrimethyl ammonium chloride	EC <sub>50</sub>	0.053	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72
n-alkyl dimethyl benzyl ammonium chloride	EC <sub>50</sub>	0.02	<i>Selenastrum capricornutum</i>	OECD 201 (EU C.3)	72
ethanol	EC <sub>50</sub>	675	<i>Scenedesmus quadricauda</i> <i>Not specified</i>	Method not given	72
tetrasodium ethylene diamine tetraacetate	EC <sub>50</sub>	> 100	<i>Scenedesmus obliquus</i>	88/302/EEC, Part C, static	72
amines, coco alkyltrimethyl, N-oxides	EC <sub>50</sub>	0.11	<i>Pseudokirchner</i>	Method not given	72

## VIREX II J-FLEX

			<i>iella subcapitata</i>	
Carbonic acid, sodium salt (2:3)		No data available		
p-mentha-1,4(8)-diene		No data available		

## Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
Didecyldimethyl ammonium chloride		No data available			
n-alkyl dimethyl benzyl ammonium chloride		No data available			
ethanol		No data available			
tetrasodium ethylene diamine tetraacetate		No data available			
amines, coco alkyldimethyl, N-oxides		No data available			
Carbonic acid, sodium salt (2:3)		No data available			
p-mentha-1,4(8)-diene		No data available			

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
Didecyldimethyl ammonium chloride		No data available			
n-alkyl dimethyl benzyl ammonium chloride	EC <sub>20</sub>	5	Activated sludge	OECD 209	0.5 hour(s)
ethanol	EC <sub>0</sub>	6500	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
tetrasodium ethylene diamine tetraacetate	EC <sub>20</sub>	> 500	Activated sludge	OECD 209	0.5 hour(s)
amines, coco alkyldimethyl, N-oxides		No data available			
Carbonic acid, sodium salt (2:3)		No data available			
p-mentha-1,4(8)-diene		No data available			

## Aquatic long-term toxicity

## Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Didecyldimethyl ammonium chloride		No data available				
n-alkyl dimethyl benzyl ammonium chloride		No data available				
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	> 25.7	<i>Brachydanio rerio</i>	OECD 210	35 day(s)	
amines, coco alkyldimethyl, N-oxides		No data available				
Carbonic acid, sodium salt (2:3)		No data available				
p-mentha-1,4(8)-diene		No data available				

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Didecyldimethyl ammonium chloride	NOEC	> 0.01-0.1	<i>Daphnia magna</i>	OECD 211	21 day(s)	
n-alkyl dimethyl benzyl ammonium chloride	NOEC	0.025	<i>Daphnia magna</i>	OECD 211	21 day(s)	
ethanol		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	25	<i>Daphnia magna</i>	OECD 211	21 day(s)	
amines, coco alkyldimethyl, N-oxides		No data available				
Carbonic acid, sodium salt (2:3)		No data available				
p-mentha-1,4(8)-diene		No data available				

## VIREX II J-FLEX

		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
Didecyldimethyl ammonium chloride		No data available				
n-alkyl dimethyl benzyl ammonium chloride		No data available				

**Terrestrial toxicity**

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

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Didecyldimethyl ammonium chloride		No data available				
n-alkyl dimethyl benzyl ammonium chloride		No data available				
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	156	<i>Eisenia fetida</i>	OECD 207	14	

Terrestrial toxicity - plants, if available:

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

Terrestrial toxicity - birds, if available:

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

Terrestrial toxicity - beneficial insects, if available:

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

Terrestrial toxicity - soil bacteria, if available:

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

Abiotic degradation - hydrolysis, if available:

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

## VIREX II J-FLEX

Abiotic degradation - other processes, if available:

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

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
Didecyldimethyl ammonium chloride		Oxygen depletion	> 60%	OECD 301D	Readily biodegradable
n-alkyl dimethyl benzyl ammonium chloride		Oxygen depletion	> 60%	Read across	Readily biodegradable
ethanol	Activated sludge, aerobe	Oxygen depletion	> 60% in 10 day(s)	OECD 301B	Readily biodegradable
tetrasodium ethylene diamine tetraacetate				Weight of evidence	Not readily biodegradable. Inherently biodegradable.
amines, coco alkyl dimethyl, N-oxides			> 93% in 28 day(s)	OECD 301D	Readily biodegradable
Carbonic acid, sodium salt (2:3)					Not applicable (inorganic substance)
p-mentha-1,4(8)-diene				OECD 301D	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

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

Degradation in relevant environmental compartments, if available:

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

**12.3 Bioaccumulative potential**Partition coefficient n-octanol/water (log K<sub>ow</sub>)

Ingredient(s)	Value	Method	Evaluation	Remark
Didecyldimethyl ammonium chloride	No data available			
n-alkyl dimethyl benzyl ammonium chloride	0.004	Method not given	No bioaccumulation expected	at 20 °C
ethanol	-0.31	Weight of evidence	No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	-3.86	Method not given	No bioaccumulation expected	
amines, coco alkyl dimethyl, N-oxides	< 2.7			
Carbonic acid, sodium salt (2:3)	No data available			
p-mentha-1,4(8)-diene	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
Didecyldimethyl ammonium chloride	2.1		Method not given	No bioaccumulation expected	
n-alkyl dimethyl benzyl ammonium chloride	79	<i>Lepomis macrochirus</i>		Low potential for bioaccumulation	
ethanol	0.5		Weight of evidence	No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	1.8	<i>Lepomis macrochirus</i>	OECD 305	Low potential for bioaccumulation	
amines, coco alkyl dimethyl, N-oxides	No data available				
Carbonic acid, sodium salt (2:3)	No data available				
p-mentha-1,4(8)-diene	No data available				

**12.4 Mobility in soil**

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K <sub>oc</sub>	Desorption coefficient Log K <sub>oc</sub> (des)	Method	Soil/sediment type	Evaluation
Didecyldimethyl ammonium chloride	No data available				
n-alkyl dimethyl benzyl ammonium chloride	No data available				

## VIREX II J-FLEX

ethanol	No data available				
tetrasodium ethylene diamine tetraacetate	No data available				Adsorption to solid soil phase is not expected
amines, coco alkyl dimethyl, N-oxides	No data available				
Carbonic acid, sodium salt (2:3)	No data available				
p-mentha-1,4(8)-diene	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:** 1903

**14.2 UN proper shipping name:**

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

**14.3 Transport hazard class(es):**

**Transport hazard class (and subsidiary risks):** 8

**14.4 Packing group:** III

**14.5 Environmental hazards:**

**Environmentally hazardous:** Yes

**Marine pollutant:** Yes

**14.6 Special precautions for user:** None known.

**14.7 Maritime transport in bulk according to IMO instruments:** The product is not transported in bulk tankers.

**Other relevant information:**

**Hazchem code:** 2X

**IMO/IMDG**

**EmS:** F-A, S-B

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

HSR002526.

**Group standard**

Cleaning Products (Corrosive) Group Standard 2020

**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

6.1D - Acutely toxic (oral)

6.5B - Contact sensitisers

8.2B - Corrosive to dermal tissue

## VIREX II J-FLEX

- 8.3A - Corrosive to ocular tissue
- 9.1A - Very ecotoxic in the aquatic environment
- 9.1B - Ecotoxic in the aquatic environment

**SECTION 16: Other information**

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

**SDS code:** MS32000412

**Version:** 02.0

**Revision:** 2023-09-06

**Abbreviations and acronyms:**

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

**End of Safety Data Sheet**