



## CREW BATHROOM CLEANER & SCALE REMOVER J-FLEX

Revision: 2018-05-08

Version: 01.0

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

#### 1.1 Product identifier

**Product name:** CREW BATHROOM CLEANER & SCALE REMOVER J-FLEX

#### 1.2 Recommended use and restrictions on use

**Identified uses:**

Bathroom cleaner and scale remover

**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**

6.1D - Acutely toxic (oral)

6.3A - Irritating to the skin

6.5B - Contact sensitisers

8.3A - Corrosive to ocular tissue

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

9.2C - Harmful in the soil environment

**GHS Equivalent Classification**

Acute toxicity, oral, Category 4

Skin irritation, Category 2

Skin sensitisation, Category 1

Serious eye damage, Category 1

Acute aquatic toxicity, Category 2

Soil environment, Category 3

#### 2.2 Label elements



**Signal word:** Danger

**Hazard statements:**

H302 - Harmful if swallowed.

H318 - Causes serious eye damage.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H401 - Toxic to aquatic life.

H423 - Harmful to the soil environment.

**Prevention statement(s):**

P233 - Keep container tightly closed.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

**CREW BATHROOM CLEANER & SCALE REMOVER J-FLEX**

P272 - Contaminated work clothing should not be allowed out of the workplace.

P280 - Wear protective gloves, protective clothing and eye or face protection.

**Response statement(s):**

P301 + P312 - IF SWALLOWED: Call a POISON CENTRE, doctor or physician if you feel unwell.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 - If skin irritation occurs: Get medical advice or attention.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTRE, doctor or physician.

P321 - Specific treatment (see supplemental first aid instructions on this label).

P330 - Rinse mouth.

P362 - Take off contaminated clothing.

**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 (%): 5.6

**HSNO Classification**

6.3B - Mildly irritating to the skin

6.4A - Irritating to the eye

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

**GHS Equivalent Classification**

Skin irritation, Category 3

Serious eye irritation, Category 2

Acute aquatic toxicity, Category 3

**2.5 Label elements diluted product**

**Dilution Signal word:** Warning.

H316 - Causes mild skin irritation.

H319 - Causes serious eye irritation.

H402 - Harmful to aquatic life.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

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.

P501 - Dispose of unused content as chemical waste.

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

Ingredient(s)	CAS number	EC number	Weight percent
potassium alkylbenzenesulphonate	85480-57-5	287-337-9	10-30
2-(2-ethoxyethoxy)ethanol	111-90-0	203-919-7	3-10
alkyl alcohol ethoxylate	64425-86-1	Polymer*	3-10
benzyl alcohol	100-51-6	202-859-9	3-10
citric acid	77-92-9	201-069-1	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**

**CREW BATHROOM CLEANER & SCALE REMOVER J-FLEX****4.1 Description of first aid measures****General Information:**

Symptoms of intoxication may even occur after several hours. It is recommended to continue medical observation for at least 48 hours after the incident.

**Inhalation:**

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

**Skin contact:**

Wash skin with plenty of lukewarm, gently flowing water. Take off immediately all contaminated clothing and wash it before re-use. If skin irritation or rash occurs: Get medical advice or attention. 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. 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. 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:**

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. May cause an allergic skin reaction.

**Eye contact:**

Causes severe or permanent damage.

**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**

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, 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. Contaminated work clothing should not be allowed out of the

**CREW BATHROOM CLEANER & SCALE REMOVER J-FLEX**

workplace. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

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

Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging. 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 (EN 166).

**Hand protection:**

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber Penetration time:  $\geq 480$  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:**

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 (%):** 5.6

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

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

**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:**

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

**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, Purple

**Odour:** Product specific

## CREW BATHROOM CLEANER &amp; SCALE REMOVER J-FLEX

**Odour threshold:** Not applicable

**pH:** ≈ 4 (neat)

**Dilution pH:** > 3 (1%)

**Melting point/freezing point (°C):** Not determined

**Initial boiling point and boiling range (°C):** Not determined

**Flash point (°C):** > 93.4

**Sustained combustion:** Not applicable.

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

**Evaporation rate:** Not determined

**Flammability (solid, gas):** Not applicable to liquids

**Upper/lower flammability limit (%):** Not determined

**Vapour pressure:** Not determined

**Vapour density:** Not determined

**Relative density:** ≈ 1.072 (20 °C)

**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:** ≈ 33 mPa.s (20 °C)

**Explosive properties:** Not explosive.

**Oxidising properties:** Not oxidising

ISO 4316

ISO 4316

Not relevant to classification of this product

closed cup

Not relevant to classification of this product

Not relevant to classification of this product

OECD 109 (EU A.3)

## 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): 1500

ATE - Dermal (mg/kg): >5000

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)
potassium alkylbenzenesulphonate		No data available			
2-(2-ethoxyethoxy)ethanol	LD <sub>50</sub>	5540	Rat	Method not given	
alkyl alcohol ethoxylate		No data available			
benzyl alcohol	LD <sub>50</sub>	1230	Rat	Method not given	
citric acid	LD <sub>50</sub>	3000	Rat	Method not given	

## CREW BATHROOM CLEANER &amp; SCALE REMOVER J-FLEX

## Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
potassium alkylbenzenesulphonate		No data available			
2-(2-ethoxyethoxy)ethanol	LD <sub>50</sub>	5940	Rat	Method not given	
alkyl alcohol ethoxylate		No data available			
benzyl alcohol	LD <sub>50</sub>	> 2000	Rabbit	Method not given	
citric acid	LD <sub>50</sub>	> 2000	Rat	Method not given	

## Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium alkylbenzenesulphonate		No data available			
2-(2-ethoxyethoxy)ethanol	LC <sub>0</sub>	> 5.24 (mist)	Rat	OECD 403 (EU B.2)	8
alkyl alcohol ethoxylate		No data available			
benzyl alcohol	LC <sub>50</sub>	> 4 (mist)	Rat	OECD 403 (EU B.2)	4
citric acid		No data available			

## Irritation and corrosivity

## Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
potassium alkylbenzenesulphonate	No data available			
2-(2-ethoxyethoxy)ethanol	No data available			
alkyl alcohol ethoxylate	No data available			
benzyl alcohol	No data available			
citric acid	Not irritant	Rabbit	OECD 404 (EU B.4)	

## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
potassium alkylbenzenesulphonate	No data available			
2-(2-ethoxyethoxy)ethanol	No data available			
alkyl alcohol ethoxylate	No data available			
benzyl alcohol	Irritant		Method not given	
citric acid	Irritant	Rabbit	OECD 405 (EU B.5)	

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
potassium alkylbenzenesulphonate	No data available			
2-(2-ethoxyethoxy)ethanol	No data available			
alkyl alcohol ethoxylate	No data available			
benzyl alcohol	No data available			
citric acid	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
potassium alkylbenzenesulphonate	No data available			
2-(2-ethoxyethoxy)ethanol	Not sensitising		Method not given	
alkyl alcohol ethoxylate	No data available			
benzyl alcohol	Not sensitising		Method not given	
citric acid	Not sensitising	Guinea pig	Method not given	

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
potassium alkylbenzenesulphonate	No data available			
2-(2-ethoxyethoxy)ethanol	No data available			
alkyl alcohol ethoxylate	No data available			
benzyl alcohol	Not sensitising			
citric acid	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)

## CREW BATHROOM CLEANER &amp; SCALE REMOVER J-FLEX

potassium alkylbenzenesulphonate	No data available		No data available	
2-(2-ethoxyethoxy)ethanol	No data available		No data available	
alkyl alcohol ethoxylate	No data available		No data available	
benzyl alcohol	No data available		No data available	
citric acid	No data available		No evidence of genotoxicity, negative test results	Method not given

## Carcinogenicity

Ingredient(s)	Effect
potassium alkylbenzenesulphonate	No data available
2-(2-ethoxyethoxy)ethanol	No data available
alkyl alcohol ethoxylate	No data available
benzyl alcohol	No data available
citric acid	No evidence for carcinogenicity, negative test results

## Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
potassium alkylbenzenesulphonate			No data available				
2-(2-ethoxyethoxy)ethanol			No data available				
alkyl alcohol ethoxylate			No data available				
benzyl alcohol			No data available				
citric acid			No data available				No evidence for reproductive toxicity

## 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
potassium alkylbenzenesulphonate		No data available				
2-(2-ethoxyethoxy)ethanol		No data available				
alkyl alcohol ethoxylate		No data available				
benzyl alcohol		No data available				
citric acid		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
potassium alkylbenzenesulphonate		No data available				
2-(2-ethoxyethoxy)ethanol		No data available				
alkyl alcohol ethoxylate		No data available				
benzyl alcohol		No data available				
citric acid		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
potassium alkylbenzenesulphonate		No data available				
2-(2-ethoxyethoxy)ethanol		No data available				
alkyl alcohol ethoxylate		No data available				
benzyl alcohol		No data available				
citric acid		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
potassium alkylbenzenesulphonate			No data available					

## CREW BATHROOM CLEANER &amp; SCALE REMOVER J-FLEX

2-(2-ethoxyethoxy)ethanol			No data available				
alkyl alcohol ethoxylate			No data available				
benzyl alcohol			No data available				
citric acid			No data available				

## STOT-single exposure

Ingredient(s)	Affected organ(s)
potassium alkylbenzenesulphonate	No data available
2-(2-ethoxyethoxy)ethanol	No data available
alkyl alcohol ethoxylate	No data available
benzyl alcohol	Not applicable
citric acid	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
potassium alkylbenzenesulphonate	No data available
2-(2-ethoxyethoxy)ethanol	No data available
alkyl alcohol ethoxylate	No data available
benzyl alcohol	Not applicable
citric acid	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)
potassium alkylbenzenesulphonate		No data available			
2-(2-ethoxyethoxy)ethanol	LC <sub>50</sub>	> 100	<i>Pimephales promelas</i>	Method not given	96
alkyl alcohol ethoxylate		No data available			
benzyl alcohol	LC <sub>50</sub>	460	<i>Fish</i>	Method not given	96
citric acid	LC <sub>50</sub>	440	<i>Leuciscus idus</i>	Method not given	48

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium alkylbenzenesulphonate		No data available			
2-(2-ethoxyethoxy)ethanol	EC <sub>50</sub>	1982	<i>Daphnia magna Straus</i>	Method not given	48
alkyl alcohol ethoxylate		No data available			
benzyl alcohol	EC <sub>50</sub>	230	<i>Daphnia magna Straus</i>	Method not given	48
citric acid	EC <sub>50</sub>	1535	<i>Daphnia magna Straus</i>	Method not given	24

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium alkylbenzenesulphonate		No data available			
2-(2-ethoxyethoxy)ethanol		No data available			-
alkyl alcohol ethoxylate		No data available			
benzyl alcohol	EC <sub>50</sub>	640	<i>Scenedesmus</i>	Method not given	96



## CREW BATHROOM CLEANER &amp; SCALE REMOVER J-FLEX

			<i>quadricauda</i>		
citric acid	LC <sub>50</sub>	425	<i>Scenedesmus quadricauda</i>	Method not given	168

## Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
potassium alkylbenzenesulphonate		No data available			
2-(2-ethoxyethoxy)ethanol		No data available			-
alkyl alcohol ethoxylate		No data available			
benzyl alcohol		No data available			-
citric acid		No data available			-

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
potassium alkylbenzenesulphonate		No data available			
2-(2-ethoxyethoxy)ethanol	EC <sub>50</sub>	> 5000		Method not given	16 hour(s)
alkyl alcohol ethoxylate		No data available			
benzyl alcohol		No data available			
citric acid	EC <sub>50</sub>	> 10000	<i>Pseudomonas putida</i>	Method not given	16 hour(s)

## Aquatic long-term toxicity

## Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
potassium alkylbenzenesulphonate		No data available				
2-(2-ethoxyethoxy)ethanol		No data available				
alkyl alcohol ethoxylate		No data available				
benzyl alcohol		No data available				
citric acid		No data available				

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
potassium alkylbenzenesulphonate		No data available				
2-(2-ethoxyethoxy)ethanol		No data available				
alkyl alcohol ethoxylate		No data available				
benzyl alcohol		No data available				
citric acid		No data available				

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

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
potassium alkylbenzenesulphonate		No data available				
2-(2-ethoxyethoxy)ethanol		No data available			-	
alkyl alcohol ethoxylate		No data available				
benzyl alcohol		No data available			-	
citric acid		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
2-(2-ethoxyethoxy)ethanol		No data			-	

## CREW BATHROOM CLEANER &amp; SCALE REMOVER J-FLEX

		available				
benzyl alcohol		No data available			-	
citric acid		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
2-(2-ethoxyethoxy)ethanol		No data available			-	
benzyl alcohol		No data available			-	
citric acid		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
2-(2-ethoxyethoxy)ethanol		No data available			-	
benzyl alcohol		No data available			-	
citric acid		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
2-(2-ethoxyethoxy)ethanol		No data available			-	
benzyl alcohol		No data available			-	
citric acid		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
2-(2-ethoxyethoxy)ethanol		No data available			-	
benzyl alcohol		No data available			-	
citric acid		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 <sub>50</sub>	Method	Evaluation
potassium alkylbenzenesulphonate				Weight of evidence	Not readily biodegradable.
2-(2-ethoxyethoxy)ethanol			90 % in 28 day(s)	OECD 301E	Readily biodegradable
alkyl alcohol ethoxylate				OECD 301B	Readily biodegradable
benzyl alcohol		Method not given	95 - 97% % in 21 day(s)	Method not given	Readily biodegradable
citric acid			97 % in 28 day(s)		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
potassium alkylbenzenesulphonate	No data available			
2-(2-ethoxyethoxy)ethanol	-0.8	Method not given	No bioaccumulation expected	
alkyl alcohol ethoxylate	No data available			

## CREW BATHROOM CLEANER &amp; SCALE REMOVER J-FLEX

benzyl alcohol	1.05	Method not given	Low potential for bioaccumulation	
citric acid	-1.72		No bioaccumulation expected	

## Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
potassium alkylbenzenesulphonate	No data available				
2-(2-ethoxyethoxy)ethanol	No data available				
alkyl alcohol ethoxylate	No data available				
benzyl alcohol	No data available			Low potential for bioaccumulation	
citric acid	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
potassium alkylbenzenesulphonate	No data available				
2-(2-ethoxyethoxy)ethanol	No data available				High potential for mobility in soil
alkyl alcohol ethoxylate	No data available				
benzyl alcohol	No data available				Potential for mobility in soil, soluble in water
citric acid	No data available				Potential for mobility in soil, soluble in water

## 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

## 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

14.6 Special precautions for user: Non-dangerous goods

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: 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

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

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## Abbreviations and acronyms:

- DNEL - Derived No Effect Limit
- AUH - GHS Specific hazard statement

**CREW BATHROOM CLEANER & SCALE REMOVER J-FLEX**

- 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**