Safety Data Sheet

Suma Eliminex J-flex

Revision: 2015-11-02 **Version:** 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier
Product name: Suma Eliminex J-flex

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

1.3 Details of the supplier
Diversey Australia Pty. Limited
29 Chifley St, Smithfield, NSW, 2164, Australia
Telephone: 1800 647 779 (toll free)
Fax: (02) 9725 5767
Email: aucustserv@sealedair.com
Website: http://www.sealedair.com/

1.4 Emergency telephone number
Call 1800 033 111 (24hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classified as hazardous according to Safe Work Australia criteria.

AUH031
Skin corrosion, Category 1B
Corrosive to metals, Category 1

2.2 Label elements

Signal word: Danger

Hazard statements:
AUH031 - Contact with acids liberates toxic gas.
H314 - Causes severe skin burns and eye damage.
H290 - May be corrosive to metals.

Prevention statement(s):
P234 - Keep only in original container.
P260 - Do not breathe vapours.
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):
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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).
P363 - Wash contaminated clothing before reuse.

P390 - Absorb spillage to prevent material damage.

Storage statement(s):
P405 - Store locked up.
P406 - Store in corrosive-resistant container with a resistant inner liner.

Disposal statement(s):
P501 - Dispose of unused content as chemical waste.

2.3 Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS number	EC number	Classification	Weight percent
sodium hypochlorite	7681-52-9	231-668-3	AUH031 Skin Corr. 1B (H314) STOT SE 3 (H335) Met. Corr. 1 (H290)	3-10
disodium trisilicate	1344-09-8	215-687-4	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	1-3
N,N-dimethyltetradecylamine N-oxide	3332-27-2	222-059-3	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	1-3
potassium hydroxide	1310-58-3	215-181-3	Skin Corr. 1A (H314) Acute Tox. 4 (H302) Met. Corr. 1 (H290)	1-3
sodium xylene sulphonate	1300-72-7	215-090-9	Eye Irrit. 2 (H319)	1-3
Sodium chlorate	7775-09-9	231-887-4	Ox. Sol. 1 (H271) Acute Tox. 4 (H302)	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.
For the full text of the H and AUH phrases mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

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

Skin contact: Take off immediately all contaminated clothing and wash it before re-use. Immediately call a POISON CENTRE, doctor or physician.

Eye contact: Immediately rinse eyes cautiously with lukewarm water for several 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. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

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.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: May cause bronchospasm in chlorine sensitive individuals.

Skin contact: Causes severe burns.

Eye contact: Causes severe or permanent damage.

Ingestion: Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

4.3 Indication of any immediate medical attention and special treatment needed
No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

Poison Information Center: Call 13 11 26 (Australia Wide).

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
Ensure adequate ventilation. Do not breathe dust or vapour. In case of an incident in a confined area wear suitable respiratory protection. Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions
Do not allow to enter drainage system, surface or ground water. Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up
Use neutralising agent. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Ensure adequate ventilation.

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 adviced by Sealed Air. 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. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with skin and eyes. Do not breathe vapours. Use only with adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Keep only in original container. Store in a closed container.
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) (TWA)	Short term value(s) (STEL)	Peak value(s)
potassium hydroxide			2 mg/m³

Biological limit values, if available:

8.2 Exposure controls

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

Recommended safety measures for handling the undiluted product:

Appropriate engineering controls: The product is intended to be used in closed systems.
Appropriate organisational controls: No special requirements under normal use conditions.

Personal protective equipment
Eye / face protection: Safety glasses or goggles (EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.
Hand protection: Chemical-resistant protective gloves (EN 374).

Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier.
Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact:
Material: butyl rubber
Penetration time: >= 480 min
Material thickness: >= 0.7 mm

Suggested gloves for protection against splashes:
Material: nitrile rubber
Penetration time: >= 30 min
Material thickness: >= 0.4 mm

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

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

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

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

	Method / remark
Physical State: Liquid	
Colour: Hazy, Yellow	
Odour: Product specific	
Odour threshold: Not applicable	
pH: ≈ 12.7 (neat)	
Dilution pH: ≈ 11 (1%)	
Melting point/freezing point (°C): Not determined	
Initial boiling point and boiling range (°C): Not determined	
Flash point (°C): > 93.3	closed cup
Sustained combustion: Not applicable.	
Evaporation rate: Not determined	
Flammability (solid, gas): Not determined	
Upper/lower flammability limit (%): Not determined	
Vapour pressure: Not determined	
Vapour density: Not determined	
Relative density: 1.1197 g/cm³ (20 °C)	
Solubility in / Miscibility with Water: Fully miscible	
Autoignition temperature: Not determined	
Decomposition temperature: Not applicable.	
Viscosity: Not determined	
Explosive properties: Not explosive.	
Oxidising properties: Not oxidising	

9.2 Other information

Surface tension (N/m): Not determined	
Corrosion to metals: Corrosive	Weight of evidence

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
Contact with acids liberates toxic gas. Reacts with acids. Keep away from acids.

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): >2000

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)
sodium hypochlorite	LD_{50}	> 1100	Rat		90
disodium trisilicate	LD_{50}	3400	Rat	Method not given	
N,N-dimethyltetradecylamine N-oxide	LD_{50}	> 2000	Rat	Method not given	
potassium hydroxide	LD_{50}	333	Rat	OECD 425	
sodium xylene sulphonate	LD_{50}	> 7200	Rat	Method not given	-
Sodium chlorate		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium hypochlorite	LD_{50}	> 20000	Rabbit	OECD 402 (EU B.3)	-
disodium trisilicate	LD_{50}	> 5000	Rat	Method not given	
N,N-dimethyltetradecylamine N-oxide		No data available			
potassium hydroxide		No data available			
sodium xylene sulphonate	LD_{50}	> 2000	Rabbit	Method not given	-
Sodium chlorate		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hypochlorite	LC_{50}	> 10.5 (vapour)	Rat	OECD 403 (EU B.2)	1
disodium trisilicate	LC_{50}	> 2.06	Rat	Method not given	
N,N-dimethyltetradecylamine N-oxide		No data available			
potassium hydroxide		No data available			
sodium xylene sulphonate	LC_{0}	> 6.41 (mist)	Rat	Method not given	4
Sodium chlorate		No data available			

Irritation and corrosivity
Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hypochlorite	Corrosive	Rabbit	OECD 404 (EU B.4)	
disodium trisilicate	Irritant		Method not given	
N,N-dimethyltetradecylamine N-oxide	Irritant	Rabbit	Method not given	
potassium hydroxide	Corrosive	Rabbit	Draize test	
sodium xylene sulphonate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
Sodium chlorate	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hypochlorite	Severe damage	Rabbit	OECD 405 (EU B.5)	
disodium trisilicate	Severe damage		Method not given	
N,N-dimethyltetradecylamine N-oxide	Severe damage	Rabbit	Method not given	
potassium hydroxide	Corrosive		Method not given	
sodium xylene sulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
Sodium chlorate	No data available			

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hypochlorite	Irritating to respiratory tract			
disodium trisilicate	Irritating to respiratory tract		Method not given	
N,N-dimethyltetradecylamine N-oxide	No data available			
potassium hydroxide	No data available			
sodium xylene sulphonate	No data available			
Sodium chlorate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium hypochlorite	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	-
disodium trisilicate	Not sensitising		Method not given	
N,N-dimethyltetradecylamine N-oxide	No data available			
potassium hydroxide	Not sensitising	Guinea pig	Method not given	
sodium xylene sulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	-
Sodium chlorate	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium hypochlorite	No data available			-
disodium trisilicate	No data available			
N,N-dimethyltetradecylamine N-oxide	No data available			
potassium hydroxide	No data available			
sodium xylene sulphonate	No data available			-
Sodium chlorate	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)
sodium hypochlorite	No evidence for mutagenicity	OECD 471 (EU B.12/13)	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
disodium trisilicate	No evidence for mutagenicity, negative test results		No data available	
N,N-dimethyltetradecylamine N-oxide	No data available		No data available	
potassium hydroxide	No evidence for mutagenicity, negative test results	Method not given	No data available	
sodium xylene sulphonate	No evidence for mutagenicity, negative test results	OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
Sodium chlorate	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
sodium hypochlorite	No evidence for carcinogenicity, negative test results
disodium trisilicate	No evidence for carcinogenicity, negative test results
N,N-dimethyltetradecylamine N-oxide	No data available
potassium hydroxide	No evidence for carcinogenicity, negative test results
sodium xylene sulphonate	No evidence for carcinogenicity, negative test results
Sodium chlorate	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
sodium hypochlorite	NOAEL	Developmental toxicity Impaired fertility	5 (Cl)	Rat	OECD 414 (EU B.31), oral OECD 415 (EU B.34), oral		No evidence for reproductive toxicity
disodium trisilicate			No data available				No evidence for reproductive toxicity
N,N-dimethyltetradecylamine N-oxide			No data available				
potassium hydroxide			No data available				No evidence for reproductive toxicity
sodium xylene sulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		
Sodium chlorate			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
sodium hypochlorite	NOAEL	50	Rat	OECD 408 (EU B.26)	90	
disodium trisilicate	NOAEL	> 159	Rat	Method not given		
N,N-dimethyltetradecylamine N-oxide		No data available				
potassium hydroxide		No data available				
sodium xylene sulphonate	NOAEL	763 - 3534	Rat	OECD 408 (EU B.26)	90	
Sodium chlorate		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
sodium hypochlorite		No data available			-	
disodium trisilicate		No data available				
N,N-dimethyltetradecylamine N-oxide		No data available				
potassium hydroxide		No data available				
sodium xylene sulphonate	NOAEL	> 440		OECD 411 (EU B.28)	90	
Sodium chlorate		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
sodium hypochlorite		No data available			-	
disodium trisilicate		No data available				
N,N-dimethyltetradecylamine N-oxide		No data available				
potassium hydroxide		No data available				
sodium xylene sulphonate		No data available			-	
Sodium chlorate		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
sodium hypochlorite			No data available					
disodium trisilicate			No data available					
N,N-dimethyltetradecyl amine N-oxide			No data available					
potassium hydroxide			No data available					
sodium xylene sulphonate	Oral		No data available	Rat	OECD 453 (EU B.33)	24 month(s)	No adverse effects observed	
Sodium chlorate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium hypochlorite	Not applicable
disodium trisilicate	No data available
N,N-dimethyltetradecylamine N-oxide	No data available
potassium hydroxide	No data available
sodium xylene sulphonate	No data available
Sodium chlorate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium hypochlorite	Not applicable
disodium trisilicate	No data available
N,N-dimethyltetradecylamine N-oxide	No data available

potassium hydroxide	No data available
sodium xylene sulphonate	No data available
Sodium chlorate	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)
sodium hypochlorite	LC_{50}	0.06	*Oncorhynchus mykiss*	Method not given	96
disodium trisilicate	LC_{50}	260 - 310	*Oncorhynchus mykiss*	Method not given	96
N,N-dimethyltetradecylamine N-oxide	LC_{50}	10 - 100	*Brachydanio rerio*	OECD 203 Read across	96
potassium hydroxide	LC_{50}	80	*Various species*	Method not given	24
sodium xylene sulphonate	LC_{50}	> 1000	*Fish*	EPA-OPPTS	96
Sodium chlorate		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hypochlorite	EC_{50}	0.035	*Ceriodaphnia dubia*	OECD 202	48
disodium trisilicate	EC_{50}	1700	*Daphnia magna Straus*	Method not given	48
N,N-dimethyltetradecylamine N-oxide	EC_{50}	11.1	*Daphnia magna Straus*	OECD 202	48
potassium hydroxide	EC_{50}	30 - 1000	*Daphnia magna Straus*	Method not given	-
sodium xylene sulphonate	EC_{50}	> 1000	*Daphnia*	EPA-OPPTS	48
Sodium chlorate		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hypochlorite	NOEC	0.0021	*Not specified*	Method not given	168
disodium trisilicate	EC_{50}	207	*Desmodesmus subspicatus*	Method not given	72
N,N-dimethyltetradecylamine N-oxide	EC_{50}	0.47	*Pseudokirchneriella subcapitata*	OECD 201 Read across	72
potassium hydroxide		No data available			-
sodium xylene sulphonate	EC_{50}	> 230	*Not specified*	US-EPA 1994	96
Sodium chlorate		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium hypochlorite	EC_{50}	0.026	*Crassostrea virginica*	Method not given	2
disodium trisilicate		No data available			-
N,N-dimethyltetradecylamine N-oxide		No data available			-
potassium hydroxide		No data available			-
sodium xylene sulphonate		No data			-

		available			
Sodium chlorate		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium hypochlorite		0.375	*Activated sludge*	Method not given	
disodium trisilicate		No data available			
N,N-dimethyltetradecylamine N-oxide	EC_{50}	56	*Pseudomonas putida*	DIN 38412 / Part 8 Read across	
potassium hydroxide		No data available			
sodium xylene sulphonate	$E_r C_{50}$	> 1000	*Activated sludge*	OECD 209	3 hour(s)
Sodium chlorate		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hypochlorite	NOEC	0.04	*Menidia pelinsulae*	Method not given	96 hour(s)	
disodium trisilicate	NOEC	348	*Brachydanio rerio*	Method not given	96 hour(s)	
N,N-dimethyltetradecylamine N-oxide		No data available				
potassium hydroxide		No data available				
sodium xylene sulphonate		No data available				
Sodium chlorate		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hypochlorite		No data available				
disodium trisilicate		No data available				
N,N-dimethyltetradecylamine N-oxide		No data available				
potassium hydroxide		No data available				
sodium xylene sulphonate		No data available				
Sodium chlorate		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
sodium hypochlorite		No data available			-	
disodium trisilicate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
potassium hydroxide		No data available			-	
sodium xylene sulphonate		No data available			-	
Sodium chlorate		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
sodium hypochlorite		No data available			-	
disodium trisilicate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
potassium hydroxide		No data			-	

		available				
sodium xylene sulphonate		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hypochlorite		No data available			-	
disodium trisilicate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
potassium hydroxide		No data available			-	
sodium xylene sulphonate		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sodium hypochlorite		No data available			-	
disodium trisilicate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
potassium hydroxide		No data available			-	
sodium xylene sulphonate		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hypochlorite		No data available			-	
disodium trisilicate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
potassium hydroxide		No data available			-	
sodium xylene sulphonate		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hypochlorite		No data available			-	
disodium trisilicate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
potassium hydroxide		No data available			-	
sodium xylene sulphonate		No data available			-	

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
sodium hypochlorite	115 day(s)	Indirect photo-oxidation		

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
sodium hypochlorite					Not applicable (inorganic substance)
disodium trisilicate					Not applicable (inorganic

					substance)
N,N-dimethyltetradecylamine N-oxide			> 60 % in 28 day(s)	OECD 301D	Readily biodegradable
potassium hydroxide					Not applicable (inorganic substance)
sodium xylene sulphonate			99.8 % in 28 day(s)	OECD 301B	Readily biodegradable
Sodium chlorate					No data available

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
sodium hypochlorite	-3.42	Method not given	No bioaccumulation expected	
disodium trisilicate	No data available		Low potential for bioaccumulation	
N,N-dimethyltetradecylamine N-oxide	No data available		No bioaccumulation expected	
potassium hydroxide	No data available		Not relevant, does not bioaccumulate	
sodium xylene sulphonate	-3.12	Method not given	No bioaccumulation expected	
Sodium chlorate	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium hypochlorite	No data available				
disodium trisilicate	No data available				
N,N-dimethyltetradecyl amine N-oxide	No data available				
potassium hydroxide	No data available				
sodium xylene sulphonate	No data available				
Sodium chlorate	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
sodium hypochlorite	1.12				High potential for mobility in soil
disodium trisilicate	No data available				
N,N-dimethyltetradecylamine N-oxide	No data available				
potassium hydroxide	No data available				Low potential for adsorption to soil
sodium xylene sulphonate	No data available				
Sodium chlorate	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: 3266

14.2 UN proper shipping name:

Corrosive liquid, basic, inorganic, n.o.s. (potassium hydroxide , hypochlorite)

14.3 Transport hazard class(es):

Class: 8

Label(s): 8

14.4 Packing group: III

14.5 Environmental hazards:

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:

Hazchem code: 2X

The product has been classified, labelled and packaged in accordance with the requirements of 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

Poison schedule	Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Classification	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.
Inventory listing(s)	AICS (Australian Inventory of Chemical Substances): All components are listed on AICS, or are exempt

SECTION 16: Other information

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

SDS code: MS31000423 **Version:** 01.0 **Revision:** 2015-11-02

Full text of the H phrases mentioned in section 3:

- H271 - May cause fire or explosion; strong oxidiser.
- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- H411 - Toxic to aquatic life with long lasting effects.
- AUH031 - Contact with acids liberates toxic gas.

Additional information:

Respirators: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

Work practices - solvents: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

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).

Personal protective equipment guidelines: The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Health effects from exposure: It should be noted that the effects from exposure to this product will depend on several factors including:

frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Safety Data Sheet which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations and acronyms:
- ATE - Acute Toxicity Estimate
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LD50 - Lethal Dose, 50% / Median Lethal dose
- STOT-RE - Specific target organ toxicity (repeated exposure)
- STOT-SE - Specific target organ toxicity (single exposure)
- EC No. - European Community Number

End of Safety Data Sheet