Safety Data Sheet

POWERFOAM VF4

Revision: 2020-01-16 **Version:** 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier
Product name: POWERFOAM VF4

1.2 Recommended use and restrictions on use
Identified uses:
Foam 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@diversey.com
Website: www.diversey.com/

1.4 Emergency telephone number
Seek medical advice (show the label or safety data sheet where possible)
Call 1800 033 111 (24hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Skin corrosion, Category 1A
Serious eye damage, Category 1
Corrosive to metals, Category 1

2.2 Label elements

Signal word: Danger

Hazard statements:
H314 - Causes severe skin burns and eye damage.
H290 - May be corrosive to metals.

Prevention statement(s):
P233 - Keep container tightly closed.
P234 - Keep only in original packaging.
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
No other hazards known.

2.4 Classification diluted product:
Recommended maximum concentration (%): 10

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

2.5 Label elements diluted product

Danger.

H314 - Causes severe skin burns and eye damage.
H290 - May be corrosive to metals.

P233 - Keep container tightly closed.
P234 - Keep only in original packaging.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P280 - Wear protective gloves, protective clothing and eye or face protection.
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.
P405 - Store locked up.
P406 - Store in corrosive-resistant container with a resistant inner liner.
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
sodium hydroxide	1310-73-2	215-185-5	10-30
alkyl polyglucoside	68515-73-1	500-220-1	3-10
tetrasodium ethylene diamine tetraacetate	64-02-8	200-573-9	3-10

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: 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: 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.
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.
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
2R
2 - Fine water spray.
R - Liquid-tight chemical protective clothing and breathing apparatus. Dilute.

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. Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up
Dyke to collect large liquid spills. Use neutralising agent. Absorb onto dry sand or similar inert material. 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 adviced by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Store in a 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:

Ingredient(s)	Long term value(s) (TWA)	Short term value(s) (STEL)	Peak value(s)
sodium 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:
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. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling with automatic systems. Use tools for manual handling of product.

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). 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 (EN 14605).

Respiratory protection: No special requirements under normal use conditions.

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 (%): 10

Appropriate engineering controls: Use only in well ventilated areas. Ensure that foam equipment does not generate respirable particles. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling with automatic systems. Use tools for manual handling of product.

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). 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: 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
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen. Chemical-resistant protective gloves (EN 374) are always recommended for foam applications.

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: Should not reach sewage water or drainage ditch undiluted.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

	Method / remark
Physical State: Liquid	
Colour: Clear, Brown	
Odour: Product specific	
Odour threshold: Not applicable	
pH ≈ 13.5 (neat)	ISO 4316
Dilution pH: ≈ 12.7 (1%)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	
Flammability (liquid): Not flammable.	
Flash point (°C): > 100 °C	
Sustained combustion: Not applicable.	
(UN Manual of Tests and Criteria, section 32, L.2)	
Evaporation rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids	
Upper/lower flammability limit (%): Not determined	
Vapour pressure: Not determined	
Vapour density: Not determined	Not relevant to classification of this product
Relative density: ≈ 1.28 (20 °C)	OECD 109 (EU A.3)
Solubility in / Miscibility with Water: Fully miscible	
Partition coefficient: n-octanol/water No information available.	
Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3	
Autoignition temperature: Not determined	
Decomposition temperature: Not applicable.	
Viscosity: ≈ 20 mPa.s (20 °C)	DM-006 Viscosity - Additional
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
Reacts with 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
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)
sodium hydroxide		No data available			

alkyl polyglucoside	LD_{50}	> 2000	Rat	OECD 423 (EU B.1 tris)	
tetrasodium ethylene diamine tetraacetate	LD_{50}	1780	Rat	OECD 401 (EU B.1)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium hydroxide	LD_{50}	1350	Rabbit	Method not given	
alkyl polyglucoside	LD_{50}	> 2000	Rabbit	OECD 402 (EU B.3)	
tetrasodium ethylene diamine tetraacetate	LD_{50}	> 5000	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide		No data available			
alkyl polyglucoside		No data available			
tetrasodium ethylene diamine tetraacetate	LC_{50}	≥ 1-5 (dust)	Rat	OECD 403 (EU B.2)	6

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
alkyl polyglucoside	Not irritant	Rabbit	OECD 404 (EU B.4)	
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
alkyl polyglucoside	Severe damage	Rabbit	OECD 405 (EU B.5)	
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	No data available			
alkyl polyglucoside	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium hydroxide	Not sensitising		Human repeated patch test	
alkyl polyglucoside	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	No data available			
alkyl polyglucoside	No data available			
tetrasodium ethylene diamine tetraacetate	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 hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)
alkyl polyglucoside	No evidence for mutagenicity, negative test results	Read across	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

Carcinogenicity

Ingredient(s)	Effect
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
alkyl polyglucoside	No evidence for carcinogenicity, weight-of-evidence
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
sodium hydroxide			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
alkyl polyglucoside			No data available		OECD 416, (EU B.35), oral		No evidence for reproductive toxicity

tetrasodium ethylene diamine tetraacetate			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
sodium hydroxide		No data available				
alkyl polyglucoside	NOAEL	100	Rat	OECD 408 (EU B.26)	90	
tetrasodium ethylene diamine tetraacetate		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 hydroxide		No data available				
alkyl polyglucoside		No data available				
tetrasodium ethylene diamine tetraacetate		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 hydroxide		No data available				
alkyl polyglucoside		No data available				
tetrasodium ethylene diamine tetraacetate		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 hydroxide			No data available					
alkyl polyglucoside			No data available					
tetrasodium ethylene diamine tetraacetate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
alkyl polyglucoside	No data available
tetrasodium ethylene diamine tetraacetate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
alkyl polyglucoside	No data available
tetrasodium ethylene diamine tetraacetate	Respiratory tract

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)
sodium hydroxide	LC_{50}	35	*Various species*	Method not given	96
alkyl polyglucoside	LC_{50}	100.81	*Brachydanio rerio*	ISO 7346	96
tetrasodium ethylene diamine tetraacetate	LC_{50}	> 100	*Lepomis macrochirus*	OPP 72-1, static (EPA)	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)

sodium hydroxide	EC_{50}	40.4	*Ceriodaphnia sp.*	Method not given	48
alkyl polyglucoside	EC_{50}	> 100	*Daphnia magna Straus*	OECD 202 (EU C.2)	48
tetrasodium ethylene diamine tetraacetate	EC_{50}	140	*Daphnia magna Straus*	DIN 38412, Part 11	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	EC_{50}	22	*Photobacterium phosphoreum*	Method not given	0.25
alkyl polyglucoside	EC_{50}	27.22	*Desmodesmus subspicatus*	Method not given	72
tetrasodium ethylene diamine tetraacetate	EC_{50}	> 100	*Scenedesmus obliquus*	88/302/EEC, Part C, static	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium hydroxide		No data available			-
alkyl polyglucoside	EC_{50}	12.43	*Skeletonema costatum*	Method not given	3
tetrasodium ethylene diamine tetraacetate		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium hydroxide		No data available			
alkyl polyglucoside	EC_{10}	> 560	*Pseudomonas putida*	Method not given	6 hour(s)
tetrasodium ethylene diamine tetraacetate	EC_{20}	> 500	*Activated sludge*	OECD 209	0.5 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
alkyl polyglucoside	NOEC	1	*Brachydanio rerio*	Method not given	28 day(s)	
tetrasodium ethylene diamine tetraacetate	NOEC	> 25.7	*Brachydanio rerio*	OECD 210	35 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
alkyl polyglucoside	NOEC	1	*Daphnia magna*	OECD 202	21 day(s)	
tetrasodium ethylene diamine tetraacetate	NOEC	25	*Daphnia magna*	OECD 211	21 day(s)	

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

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available			-	
alkyl polyglucoside		No data available			-	
tetrasodium ethylene diamine tetraacetate		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 hydroxide		No data available			-	
alkyl polyglucoside		No data available			-	
tetrasodium ethylene diamine tetraacetate	LD_{50}	156	*Eisenia fetida*	OECD 207	14	

Terrestrial toxicity - plants, if available:

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

alkyl polyglucoside		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
sodium hydroxide		No data available			-	
alkyl polyglucoside		No data available			-	
tetrasodium ethylene diamine tetraacetate		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 hydroxide		No data available			-	
alkyl polyglucoside		No data available			-	
tetrasodium ethylene diamine tetraacetate		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 hydroxide		No data available			-	
alkyl polyglucoside		No data available			-	
tetrasodium ethylene diamine tetraacetate		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 hydroxide	13 second(s)	Method not given	Rapidly photodegradable	

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 hydroxide					Not applicable (inorganic substance)
alkyl polyglucoside			59%	OECD 301E	Readily biodegradable
tetrasodium ethylene diamine tetraacetate					Not 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
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	
alkyl polyglucoside	0.07	Method not given	No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	-13	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium hydroxide	No data available				
alkyl polyglucoside	< 1.77		Method not given	No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	1.8	*Lepomis macrochirus*	Method not given	Low potential for bioaccumulation	

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 hydroxide	No data available				Mobile in soil
alkyl polyglucoside	No data available				
tetrasodium ethylene diamine tetraacetate	No data available				Adsorption to solid soil phase is not expected

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: 1824

14.2 UN proper shipping name:
Sodium hydroxide solution

14.3 Transport hazard class(es):
Transport hazard class (and subsidiary risks): 8

14.4 Packing group: II

14.5 Environmental hazards:
Environmentally hazardous: No
Marine pollutant: No

14.6 Special precautions for user: None known.

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

Other relevant information:

Hazchem code: 2R

IMO/IMDG
EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADG7.6 Code 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

National regulations Globally Harmonised System of Classification and Labelling of Chemicals (GHS) as published by Safework Australia.

Poison schedule Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classification Globally Harmonised System of Classification and Labelling of Chemicals (GHS) as published by Safework Australia.

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: MS31001003 **Version:** 01.0 **Revision:** 2020-01-16

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

End of Safety Data Sheet