Safety Data Sheet

SUMA BREAK UP D3.5 CONC J-FILL

Revision: 2023-02-18 **Version:** 01.3

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier
Product name: SUMA BREAK UP D3.5 CONC J-FILL

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

1.3 Details of the supplier
Diversey Australia Pty. Limited
Unit 8, 55 Newton Road, Wetherill Park, NSW, 2164
1-7 Bell Grove, Braeside, VIC 3195
Telephone: 1800 647 779 (toll free)
Email: aucustserv@diversey.com
Website: diversey.com.au

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 1C
Corrosive to metals, Category 1
Serious eye damage, 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 (% w/w): 0.826

Not classified as hazardous

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS#	EC number	Weight percent
tetrapotassium pyrophosphate	7320-34-5	230-785-7	10-30
potassium hydroxide	1310-58-3	215-181-3	3-10
disodium disilicate	1344-09-8	215-687-4	1-3
Sulfonic acids, petroleum, sodium salts	68608-26-4	271-781-5	1-3
Ethylenediaminetetraacetic acid, tripotassium salt	17572-97-3	241-543-5	1-3
sodium xylene sulphonate	1300-72-7	215-090-9 / 701-037-1	1-3
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	308062-28-4	931-292-6	1-3

[4] Polymer.
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
Use neutralising agent. 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 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)
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:
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 (AS/NZS 1337.1). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

Hand protection: Chemical-resistant protective gloves (AS/NZS 2161.10). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 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 (% w/w): 0.826

Appropriate engineering controls: Use only in well ventilated areas. Ensure that foam equipment does not generate respirable particles.

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

Personal protective equipment

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

Hand protection: No special requirements under normal use conditions.

Body protection: No special requirements under normal use conditions

Respiratory protection: No special requirements under normal use conditions.

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

	Method / remark
Physical state: Liquid	
Colour: Clear , Pale , Yellow	
Odour: Product specific	
Odour threshold: Not applicable	
pH: > 13 (neat)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	
Flammability (liquid): Not flammable.	
Flash point (°C): Not applicable.	
Sustained combustion: Not applicable.	
(UN Manual of Tests and Criteria, section 32, L.2)	
Evaporation rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids	
Lower and upper explosion limit/flammability limit (%): Not determined	
Vapour pressure: Not determined	
Relative vapour density Not determined	Not relevant to classification of this product
Relative density: ≈ 1.22 (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: 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
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)
tetrapotassium pyrophosphate	LD_{50}	> 2000	Rat	Method not given	
potassium hydroxide	LD_{50}	333	Rat	OECD 425	
disodium disilicate	LD_{50}	3400	Rat	Method not given	
Sulfonic acids, petroleum, sodium salts		No data available			
Ethylenediaminetetraacetic acid, tripotassium salt		No data available			
sodium xylene sulphonate	LD_{50}	> 7200	Rat	OECD 401 (EU B.1)	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LD_{50}	> 1064 1064	Rat	OECD 401 (EU B.1)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
tetrapotassium pyrophosphate	LD_{50}	> 2000	Rabbit	Method not given	
potassium hydroxide		No data available			
disodium disilicate	LD_{50}	> 5000	Rat	Method not given	
Sulfonic acids, petroleum, sodium salts		No data available			
Ethylenediaminetetraacetic acid, tripotassium salt		No data available			
sodium xylene sulphonate	LD_{50}	> 2000	Rabbit	OECD 402 (EU B.3)	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LD_{50}	> -	Rat	OECD 402 (EU B.3)	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
tetrapotassium pyrophosphate	LC_{50}	> 1.1	Rat	Method not given	4
potassium hydroxide		No data available			
disodium disilicate	LC_{50}	> 2.06 No mortality observed	Rat	Non guideline test	
Sulfonic acids, petroleum, sodium salts		No data available			
Ethylenediaminetetraacetic acid, tripotassium salt		No data available			
sodium xylene sulphonate	LC_{0}	> 6.41 (mist) No mortality observed	Rat	OECD 403 (EU B.2)	4
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
tetrapotassium pyrophosphate	Not irritant		Method not given	
potassium hydroxide	Corrosive	Rabbit	Draize test	
disodium disilicate	Irritant		Method not given	
Sulfonic acids, petroleum, sodium salts	No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	No data available			
sodium xylene sulphonate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
tetrapotassium pyrophosphate	Irritant		Method not given	
potassium hydroxide	Corrosive	Rabbit	Method not given	
disodium disilicate	Severe damage		Method not given	
Sulfonic acids, petroleum, sodium salts	No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	No data available			
sodium xylene sulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Severe damage	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
tetrapotassium pyrophosphate	No data available			
potassium hydroxide	No data available			
disodium disilicate	Irritating to respiratory tract		Method not given	
Sulfonic acids, petroleum, sodium salts	No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	No data available			
sodium xylene sulphonate	No data available			
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
tetrapotassium pyrophosphate	Not sensitising		Method not given	
potassium hydroxide	Not sensitising	Guinea pig	Method not given	
disodium disilicate	Not sensitising		Method not given	
Sulfonic acids, petroleum, sodium salts	No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	No data available			
sodium xylene sulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
tetrapotassium pyrophosphate	No data available			

potassium hydroxide	No data available			
disodium disilicate	No data available			
Sulfonic acids, petroleum, sodium salts	No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	No data available			
sodium xylene sulphonate	No data available			
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	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)
tetrapotassium pyrophosphate	No data available		No data available	
potassium hydroxide	No evidence for mutagenicity, negative test results	Method not given	No data available	
disodium disilicate	No evidence for mutagenicity, negative test results		No data available	
Sulfonic acids, petroleum, sodium salts	No data available		No data available	
Ethylenediaminetetraacetic acid, tripotassium salt	No data available		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)
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	

Carcinogenicity

Ingredient(s)	Effect
tetrapotassium pyrophosphate	No data available
potassium hydroxide	No evidence for carcinogenicity, negative test results
disodium disilicate	No evidence for carcinogenicity, negative test results
Sulfonic acids, petroleum, sodium salts	No data available
Ethylenediaminetetraacetic acid, tripotassium salt	No data available
sodium xylene sulphonate	No evidence for carcinogenicity, negative test results
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	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
tetrapotassium pyrophosphate			No data available				
potassium hydroxide			No data available				No evidence for reproductive toxicity
disodium disilicate			No data available				No evidence for reproductive toxicity
Sulfonic acids, petroleum, sodium salts			No data available				
Ethylenediaminetetraacetic acid, tripotassium salt			No data available				
sodium xylene sulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOAEL	Teratogenic effects	25	Rat	Non guideline test		

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
tetrapotassium pyrophosphate	NOAEL	No data available	Rat	OECD 408 (EU B.26)	90 days	
potassium hydroxide		No data available				
disodium disilicate	NOAEL	> 159	Rat	Method not given	180	No effects observed
Sulfonic acids, petroleum, sodium salts		No data available				
Ethylenediaminetetraacetic acid, tripotassium salt		No data available				
sodium xylene sulphonate	NOAEL	763 - 3534	Rat	OECD 408 (EU B.26)	90	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOAEL	-		OECD 422, oral		

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
tetrapotassium pyrophosphate		No data available				
potassium hydroxide		No data available				
disodium disilicate		No data available				
Sulfonic acids, petroleum, sodium salts		No data available				
Ethylenediaminetetraacetic acid, tripotassium salt		No data available				
sodium xylene sulphonate	NOAEL	> 440		OECD 411 (EU B.28)	90	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		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
tetrapotassium pyrophosphate		No data available				
potassium hydroxide		No data available				
disodium disilicate		No data available				
Sulfonic acids, petroleum, sodium salts		No data available				
Ethylenediaminetetraacetic acid, tripotassium salt		No data available				
sodium xylene sulphonate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		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
tetrapotassium pyrophosphate			No data available					
potassium hydroxide			No data available					
disodium disilicate			No data available					
Sulfonic acids, petroleum, sodium salts			No data available					
Ethylenediaminetetraacetic acid, tripotassium salt			No data available					
sodium xylene sulphonate	Oral		No data available	Rat	OECD 453 (EU B.33)	24 month(s)	No adverse effects observed	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
tetrapotassium pyrophosphate	No data available
potassium hydroxide	No data available
disodium disilicate	No data available
Sulfonic acids, petroleum, sodium salts	No data available
Ethylenediaminetetraacetic acid, tripotassium salt	No data available
sodium xylene sulphonate	No data available
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
tetrapotassium pyrophosphate	No data available
potassium hydroxide	No data available
disodium disilicate	Not applicable
Sulfonic acids, petroleum, sodium salts	No data available
Ethylenediaminetetraacetic acid, tripotassium salt	No data available
sodium xylene sulphonate	No data available
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	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)
tetrapotassium pyrophosphate	LC_{50}	> 100	*Oncorhynchus mykiss*	OECD 203 (EU C.1)	96
potassium hydroxide	LC_{50}	80	*Various species*	Weight of evidence	24
disodium disilicate	LC_{50}	1108	*Brachydanio rerio*	Method not given	96
Sulfonic acids, petroleum, sodium salts		No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	LC_{50}	792	*Lepomis macrochirus*	Read across	96
sodium xylene sulphonate	LC_{50}	> 1000	*Oncorhynchus mykiss*	Method not given	96
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LC_{50}	2.67-3.46	*Pimephales promelas*	Similar to OECD 203	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
tetrapotassium pyrophosphate	EC_{50}	> 100	*Daphnia magna Straus*	OECD 202 (EU C.2)	48
potassium hydroxide	EC_{50}	30 - 1000	*Daphnia magna Straus*	Weight of evidence	
disodium disilicate	EC_{50}	1700	*Daphnia magna Straus*	Method not given	48
Sulfonic acids, petroleum, sodium salts		No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	EC_{50}	610	*Daphnia magna Straus*	Read across	24
sodium xylene sulphonate	EC_{50}	> 1000	*Daphnia*	Method not given	48
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	EC_{50}	3.1	*Daphnia magna Straus*	OECD 202, static	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
tetrapotassium pyrophosphate		No data available			
potassium hydroxide		No data available			
disodium disilicate	EC_{50}	207	*Desmodesmus subspicatus*	Method not given	72
Sulfonic acids, petroleum, sodium salts		No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	EC_{50}	> 60	*Pseudokirchneriella subcapitata*	Read across	72
sodium xylene sulphonate	EC_{50}	> 230	*Not specified*	EPA OPPTS 850.5400	96
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	$E_r C_{50}$	0.143	*Pseudokirchneriella subcapitata*	Method not given	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
tetrapotassium pyrophosphate		No data available			
potassium hydroxide		No data			

		available			
disodium disilicate		No data available			
Sulfonic acids, petroleum, sodium salts		No data available			
Ethylenediaminetetraacetic acid, tripotassium salt		No data available			
sodium xylene sulphonate		No data available			
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
tetrapotassium pyrophosphate		No data available			
potassium hydroxide	EC_{50}	22	*Photobacterium phosphoreum*	Method not given	15 minute(s)
disodium disilicate		No data available			
Sulfonic acids, petroleum, sodium salts		No data available			
Ethylenediaminetetraacetic acid, tripotassium salt		No data available			
sodium xylene sulphonate	$E_r C_{50}$	> 1000	*Activated sludge*	OECD 209	3 hour(s)
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	EC_{10}	> -	*Bacteria*	Non guideline test	- hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
tetrapotassium pyrophosphate		No data available				
potassium hydroxide		No data available				
disodium disilicate	NOEC	348	*Brachydanio rerio*	Method not given	96 hour(s)	
Sulfonic acids, petroleum, sodium salts		No data available				
Ethylenediaminetetraacetic acid, tripotassium salt		No data available				
sodium xylene sulphonate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOEC	-	*Pimephales promelas*	Method not given	- day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
tetrapotassium pyrophosphate		No data available				
potassium hydroxide		No data available				
disodium disilicate		No data available				
Sulfonic acids, petroleum, sodium salts		No data available				
Ethylenediaminetetraacetic acid, tripotassium salt		No data available				
sodium xylene sulphonate		No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOEC	-	*Daphnia magna*	OECD 211, flow-through	- 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
tetrapotassium pyrophosphate		No data available				
potassium hydroxide		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
tetrapotassium pyrophosphate		No data available				
potassium hydroxide		No data available				

Terrestrial toxicity - plants, if available:

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

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
tetrapotassium pyrophosphate		No data available				

Terrestrial toxicity - beneficial insects, if available:

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

Terrestrial toxicity - soil bacteria, if available:

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

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
tetrapotassium pyrophosphate	No data available			
potassium hydroxide	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
tetrapotassium pyrophosphate		No data available			
potassium hydroxide		No data available			

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT_{50}	Method	Evaluation
tetrapotassium pyrophosphate					Not applicable (inorganic substance)
potassium hydroxide					Not applicable (inorganic substance)
disodium disilicate					Not applicable (inorganic substance)
Sulfonic acids, petroleum, sodium salts				OECD 301D	Readily biodegradable
Ethylenediaminetetraacetic acid, tripotassium salt				Weight of evidence	Inherently biodegradable.
sodium xylene sulphonate	Activated sludge,	CO_2 production	99.8 % in 28	OECD 301B	Readily biodegradable

	aerobe		day(s)		
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Activated sludge, aerobe	CO_2 production	90 % in 28 day(s)	OECD 301B	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT_{50}	Method	Evaluation
tetrapotassium pyrophosphate					No data available
Sulfonic acids, petroleum, sodium salts					Not readily biodegradable.

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT_{50}	Method	Evaluation
tetrapotassium pyrophosphate					No data available
potassium hydroxide					No data available

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
tetrapotassium pyrophosphate	-2	Method not given	No bioaccumulation expected	
potassium hydroxide	No data available		Not relevant, does not bioaccumulate	
disodium disilicate	No data available		Low potential for bioaccumulation	
Sulfonic acids, petroleum, sodium salts	No data available			
Ethylenediaminetetraacetic acid, tripotassium salt	No data available			
sodium xylene sulphonate	-3.12	Method not given	No bioaccumulation expected	
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	< -	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
tetrapotassium pyrophosphate	No data available				
potassium hydroxide	No data available				
disodium disilicate	No data available				
Sulfonic acids, petroleum, sodium salts	No data available				
Ethylenediaminetetraacetic acid, tripotassium salt	No data available				
sodium xylene sulphonate	No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	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
tetrapotassium pyrophosphate	No data available				
potassium hydroxide	No data available				Low potential for adsorption to soil
disodium disilicate	No data available				
Sulfonic acids, petroleum, sodium salts	No data available				
Ethylenediaminetetraacetic acid, tripotassium salt	No data available				
sodium xylene sulphonate	No data available				
amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available				Low mobillity in soil

12.5 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products:

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

Empty packaging
Recommendation: Dispose of observing national or local regulations.
Suitable cleaning agents: Water, if necessary with cleaning agent.

SECTION 14: Transport information

ADG, IMO/IMDG, ICAO/IATA
14.1 UN number or ID number: 1814
14.2 UN proper shipping name:
Potassium hydroxide solution
14.3 Transport hazard class(es):
Transport hazard class (and subsidiary risks): 8
14.4 Packing group: III
14.5 Environmental hazards:
Environmentally hazardous: No
Marine pollutant: No
14.6 Special precautions for user: None known.
14.7 Maritime transport in bulk according to IMO instruments: The product is not transported in bulk tankers.

Other relevant information:
Hazchem code: 2R

The product has been classified, labelled and packaged in accordance with the requirements of ADG7.7 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 5 (S5) 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)	Australian Inventory of Industrial Chemicals: All components are listed on the 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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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 - Non GHS hazard statement
- PNEC - Predicted No Effect Concentration
- ATE - Acute Toxicity Estimate
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- STOT-RE - Specific target organ toxicity (repeated exposure)
- STOT-SE - Specific target organ toxicity (single exposure)
- EC No. - European Community Number
- OECD - Organisation for Economic Cooperation and Development

End of Safety Data Sheet