1. Identification

Product identifier	Toilet Bowl Cleaner -12.5% - SA	
Recommended use of the chemical and restrictions on use	An acid based cleaner for use on porcelain, vitreous enamel, ceramic, stainless steel and terrazzo surfaces. This product safely removes uric acid, encrustations, lime scale, rust and organic deposits from toilet bowls and urinals.	
Details of manufacturer or importer	Company Name	Chemwell Pty Ltd ABN 94 155 544 040
	Address	3 Clive St, Springvale, VIC, 3171
	Phone	03 9558 5678
	Email	chemwell@chemwell.com.au
	Website	www.chemwell.com.au
Emergency phone number	Police, Fire & Ambulance	000
	Poisons Information Centre	13 11 26

2. Hazard(s) Identification

This material is hazardous according to criteria of Safe Work Australia.
Considered as a 'Dangerous Good' by the Australian Code for transport of Dangerous Goods by Road and Rail.

Classification of the hazardous chemical	Acute Aquatic Toxicity 3 Chronic Aquatic Toxicity 3 Eye Damage/Irritation 2A Flammable Liquid 2 Skin Corrosion/Irritation 2
Hazard symbols	
Signal word(s)	Danger
Hazard statement(s)	H225 - Highly flammable liquid and vapour H315 - Causes skin irritation H319 - Causes serious eye irritation H412 - Harmful to aquatic life with long-lasting effects

Precautionary statement(s)	Prevention	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground/bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/light/…/equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P264 - Wash thoroughly after handling. P273 - Avoid release to the environment.
	Response	P302+352 - IF ON SKIN: Wash with plenty of water. P321 - Specific treatment (see … on this label). P332+313 - If skin irritation occurs: Get medical advice/attention. P362 - Take off contaminated clothing. P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P337+313 - If eye irritation persists get medical advice/attention. P303+361+353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P370+378 - In case of fire: Use … to extinguish.
	Storage	
	Disposal	P501 - Dispose of contents/container to in accordance with local regulation.

3. Composition and Information on Ingredients

Name	Proportion
Sulphamic Acid	10-30%
Nonyl Phenol Ethoxylated	<10%
Benzalkonium Chloride 50% solution	<10%
Eucalyptus Oil	<10%
Ethyl Alcohol	<10%

Disclosure of ingredients is only required if an ingredient causes the classification of the chemical to include a hazard class and hazard category in the following list:

- Acute toxicity (oral, dermal and inhalation) – Category 1 to 4
- Respiratory sensitiser – Category 1
- Skin sensitiser – Category 1
- Mutagenicity – Category 1 or 2

- Carcinogenicity – Category 1 or 2
- Toxic to reproduction – Category 1 or 2
- Target organ toxicity (single exposure) – Category 1 or 2
- Target organ toxicity (repeat exposure) – Category 1 or 2
- Aspiration hazards – Category 1
- Skin corrosion or irritation – Category 1 or 2
- Serious eye damage or eye irritation – Category 1 or 2A

4. First Aid Measures

Swallowed	Immediately rinse mouth out thoroughly with water and give water to drink. DO NOT induce vomiting. Seek medical advice.
Eye	Immediately irrigate eyes with large amounts of water for at least 15 minutes with eyelids held open. Take care not to rinse contaminated water into the non-affected eye. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. Seek medical advice.
Skin	Immediately wash affected area with large amounts of water. Remove any contaminated clothing and wash before re-use. Seek medical advice if pain or irritation persists.
Inhaled	For all but minor symptoms seek medical advice. Not considered a normal feature of use.
First Aid Facilities	Standard first aid facilities.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.

5. Fire Fighting Measures

Suitable extinguishing equipment	Use water fog (or if unavailable fine water spray), alcohol-resistant foam, dry agent (carbon dioxide, dry chemical powder).
Specific hazards arising from the chemical	During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Hazardous products of combustion for each ingredient are: Ingredient 1) Generates dangerous gases or fumes in contact with : halogens, alkalines,oxidizing agents,nitrates,nitrites,nitric acid,metal and water. Fire may cause evolution of : sulphur dioxides, nitrogen oxides. Ingredient 2) On combustion, may emit toxic fumes of carbon monoxide (CO). Ingredient 3) CO2, Carbon Monoxide. Ingredient 4) May produce toxic fumes of carbon monoxide and/or carbon dioxide and hydrocarbons if burning. Ingredient 8) On burning may emit toxic fumes.

Special protective equipment and precautions for fire fighters	Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant section. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. HazChem (EAC): 3WE

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Personnel involved in the clean-up should wear protective clothing as listed in section 8. Use clean, non-sparking tools and equipment. Avoid breathing vapours and contact with skin and eyes. Remove contaminated clothing and wash before reuse. Eliminate all sources of ignition. Increase ventilation. Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. Clean up all spills immediately. Clear area of all unnecessary personnel.
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Methods and materials for containment and cleaning up	Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. This may involve tipping container on its side. Clean up all spills immediately. Clear area of all unnecessary personnel. If safe to do so repack leaking container into new container. Place inert, absorbent, non-combustible material onto spillage. Wipe up. Place in a suitable, labelled container for waste disposal.

7. Handling and Storage

Handling	Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Check Section 8 for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the counteractingly workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.
Storage	Storage

8. Exposure Controls and Personal Protection

Exposure standards	No value assigned for this specific material by Safe Work Australia. However, Exposure Standard(s) for ingredient(s) are: Ingredient 1) No Data Available Ingredient 2) None specified. Ingredient 3) No value assigned for this specific material by Safe Work Australia. Ingredient 4) No Data Available Ingredient 8) Ethyl alcohol 1000ppm 1880 mg/m3 TWA
Biological limits	Biological limits for ingredient(s) are: Ingredient 1) No information available on biological limit values for this product. Ingredient 2) None specified. Ingredient 3) As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated. Ingredient 4) No information available on biological limit values for this product. Ingredient 8) None allocated.
Engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a

	selected hazard "physically" away from the worker and ventilation that strategically "adds"and "removes" air in the work environment.
Personal protective equipment (PPE)	Safety glasses with side shields. Chemical protective gloves.

9. Physical and Chemical Properties

Appearance (physical state, colour etc.)
Odour
Odour threshold
pH
Melting point/freezing point
Initial boiling point and boiling range
Flash point
Evaporation rate
Flammability (solid, gas)
Upper/lower flammability or explosive limits
Rejonasus Factor
Vapour pressure
Vapour density
Relative density
Solubility
Partition coefficient: n-octanol/water
Auto-ignition temperature
Decomposition temperature
Viscosity

10. Stability and Reactivity

Reactivity
Chemical stability
Possibility of hazardous reactions
Conditions to avoid
Incompatible materials

Hazardous decomposition products

11. Toxicological Information

Acute Toxicity, Dermal	Not Applicable
Acute Toxicity, Dusts And Mists	Not Applicable
Acute Toxicity, Gases	Not Applicable
Acute Toxicity, Inhalation	Not Applicable
Acute Toxicity, Oral	Not Applicable
Acute Toxicity, Vapours	Not Applicable
Skin Corrosion/Irritation	Category 2
Eye Damage/Irritation	Category 2A
Respiratory Sensitization	Not Applicable
Skin Sensitization	Not Applicable
Germ Cell Mutagens	Not Applicable
Carcinogenicity	Not Applicable
Reproductive Toxicity	Not Applicable
Specific Target Organ Toxicity RE	Not Applicable
Specific Target Organ Toxicity SE	Not Applicable
Aspiration Hazard	Not Applicable

Toxicological Information for Sulphamic Acid

General Information Acute oral toxicity LD50 Rat: 3160 mg/kg bw

Acute oral toxicity: LD50 rat: > 2.000 mg/kg Method: (OECD 401)

LD50Rat: 1600 mg/kg bw

LD50 Rat: > 2000 mg/kg bw

LDLo Guinea Pig: 1050 mg/kg bw

Acute oral toxicity: LD50 rat: > 2.000 mg/kg (OECD 401)

Rabbit Skin: irritation (OECD test guideline 404)

Rabbit Eye: Severe irritation (OECD test guideline 405)

Genotoxicity in vitro

Mutagenicity (mammal cell test) : micronucleus: Negative (OECD test guideline 474)

Ames test Salmonella typhimurium: negative (OECD test guideline 471)

Specific target organ toxicity single exposure: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ repeated exposure: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard: No aspiration toxicity classification.

Repeated dose oral toxicity

NOAEL : 1000 90-day rat

NOAEL: 250 (nominal) 90-day rat read-across : ammonium sulfamate

NOAEL : 500, LOAEL : 1000; 105-day rat read-across : ammonium sulfamate

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):

Ames in vitro with and without Metabolic activation: negative

Bacterial DNA-repair in vitro with and without Metabolic activation: negative

Micronucleus in vivo with and without Metabolic activation: negative

Reproduction oral toxicity

NOAEL: 25 3-generation rat read-across : ammonium sulfamate

Fertility oral toxicity NOAEL: 150 2 x 10-day Quail read-across : ammonium sulfamate

Eye Irritant Causes eye irritation. Inflammation of eye (redness, watering, itching, pain). Corneal damage. Irritating to eyes. The aerosol is corrosive to the eyes. Serious potential effects.

Ingestion irritations of mucous membranes in the mouth,pharynx,esophagus and gastrointestinal tract. Swallowing or vomiting of the product may result in aspiration hazard.

Inhalation Symptoms : cough,shortness of breath,irritation symptoms in the respiratory tract. The following symptoms may occur: Pulmonary oedema; Lung irritation; Oesophagogastric injuries. Irritating to lungs. The aerosol is corrosive to the respiratory tract. Serious potential effects.

Skin Irritant Irritating to skin. Skin inflammation (itching, scaling, reddening, pain, or occasionally, blistering). Irritating to skin. The aerosol is corrosive to the skin. Serious potential effects.

Carcinogen Category 0

Toxicological Information for Nonyl Phenol Ethoxylated

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain.

Eye contact: An eye irritant.

Skin contact: Contact with skin will result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

Inhalation: Breathing in mists or aerosols may produce respiratory irritation.

Acute toxicity: Oral LD50 (rat): <2000 mg/kg.

Skin corrosion/irritation: Irritant.

Serious eye damage/irritation: Irritant.

Chronic effects: No information available for the product.

Toxicological Information for Benzalkonium Chloride 50% solution

General Information CHRONIC HEALTH EFFECTS

Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs. Chronic exposure may inflame the skin or conjunctiva. Substance accumulation, in the human body, may occur and may cause some

concern following repeated or long-term occupational exposure. There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Prolonged or repeated skin contact may cause degreasing with drying, cracking and dermatitis following.

TOXICITY AND IRRITATION

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a nonallergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Alkyldimethylbenzylammonium chlorides are in the list of dangerous substances of council directive, classified as harmful in contact with skin and on ingestion and corrosive and very toxic to aquatic organisms. It can cause dose dependent skin and eye irritation with possible deterioration of vision, possible sensitization in those with pre-existing eczema. It does not cause cancer, genetic defect, foetal or developmental abnormality.

Carcinogenicity:

National Toxicology Program (NTP): No.

I.A.R.C. Monographs: No.

OSHA: No.

Eye Irritant Corrosive. Immediate first aid is necessary. Risk of corneal damage. If applied to the eyes, this material causes severe eye damage. Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and completely. Severe burns produce long-lasting and possibly irreversible damage. The appearance of the burn may not be apparent for several weeks after the initial contact. The cornea may ultimately become deeply opaque resulting in blindness.

Ingestion Corrosive. Even small amounts may cause serious damage. Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Swelling of the epiglottis may make it difficult to breathe which may result in suffocation. More severe exposure may result in vomiting blood and thick mucus, shock, abnormally low blood pressure, fluctuating pulse, shallow respiration and clammy skin, inflammation of stomach wall, and rupture of oesophageal tissue. Untreated shock may eventually result in kidney failure. Severe cases may result in perforation of the stomach and abdominal cavity with consequent infection, rigidity and fever. There may be severe narrowing of the oesophageal or pyloric sphincters; this may occur immediately or after a delay of weeks to years. There may be coma and convulsions, followed by death due to infection of the abdominal cavity, kidneys or lungs. Concentrated solutions of many cationics may cause corrosive damage to mucous membranes and the oesophagus. Nausea and vomiting (sometimes bloody) may follow ingestion. Serious exposures may produce an immediate burning sensation of the mouth, throat and abdomen with profuse salivation, ulceration of mucous membranes, signs of circulatory shock (hypotension, laboured breathing, and cyanosis) and a feeling of apprehension, restlessness, confusion and weakness. Weak convulsive movements may precede central nervous system depression. Erosion, ulceration, and petechial haemorrhage may occur through the small intestine with glottic, brain and pulmonary oedema. Death may result from asphyxiation due to paralysis of the muscles of respiration or cardiovascular collapse. Fatal poisoning may arise even when the only pathological signs are visceral congestion, swallowing, mild pulmonary oedema or varying signs of gastrointestinal irritation. Individuals who survive a period of severe hypertension may develop kidney failure. Cloudy swelling, patchy necrosis and fatty infiltration in such visceral organs as the heart, liver and kidneys shows at

death. Concentrated solutions of cationic surfactants may cause destruction of the tissue lining the mouth, throat and gullet, and may cause nausea and vomiting. In sufficient quantity they may produce restlessness, confusion, low blood pressure, muscle weakness, collapse, convulsion, laboured breathing, blue discolouration of the lips and coma. Death may occur in 1-4 hours. Fatal dose is estimated at 1-3 grams for certain cationics.

Inhalation Vapors are corrosive. After 24-36 hours, injured persons may develop serious shortness of breath and lung oedema. Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness. Swelling of the lungs can occur, either immediately or after a delay; symptoms of this include chest tightness, shortness of breath, frothy phlegm and cyanosis. Lack of oxygen can cause death hours after onset. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Skin Irritant Corrosive. Prolonged contact causes serious tissue damage. Skin contact with the material may be harmful; systemic effects may result following absorption. Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Carcinogen Category 0

Toxicological Information for Eucalyptus Oil

General Information

Measures of toxicity

Acute oral toxicity: Oral LD50 rat: 2480 mg/Kg

Skin corrosion/irritation: Dermal LD50 rabbit: >5000 mg/Kg

Eye damage/irritation: HET-CAM Severe irritant

Dermal Toxic Dose : Feline: 5-7 mL/Kg

Dermal Toxic Dose: Canine: 1500mg/kg

Dermal Toxic Dose: Human adult: > 25% (in white paraffin applied for 21 days) ?

Oral Toxic Dose: Human adult: 375 mg/kg

Oral Toxic Dose (1): Human child: 218 mg/Kg (NIOSH1975)

Toxic effects :

Rat: Somnolence, muscle weakness, ataxia, partial paralysis

Feline: Ataxia, change to leukocyte count

Canine: Somnolence, ataxia, partial paralysis

Human adult: Hallucination, distorted perception, coma, diarrhoea, allergic dermatitis

Human child: Hallucination, distorted perception, sleep, ataxia, coma, somnolence, diarrhoea

Eye Irritant

Severe irritant. May cause redness, irritation or oedema.

Ingestion

Harmful : may cause lung damage if swallowed. Harmful if ingested in quantity, causing internal irritation, nausea and vomiting, dizziness and muscular weakness, rapid pulse and difficulty in breathing. In severe cases delirium and convulsions may occur.

Inhalation

Potential irritant. Over-exposure at high levels may result in mucous membrane irritation of the nose and throat with coughing.

Skin Irritant

Potential irritant. May cause erythema, irritation or oedema if oil is oxidised.

Repeated or prolonged skin contact may lead to allergic contact dermatitis.

Sensitisation

Sensitisation potential :

Skin: Low (modified FCA method, guinea pig model); LLNA

Eye: Category 2 for reversible eye effects

Carcinogen Category

No Data Available

Toxicological Information for Ethyl Alcohol

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Material may be irritant to mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness and possible nausea.

Skin contact: Contact with skin may result in irritation. Repeated or prolonged skin contact may lead to irritation.

Eye contact: May be an eye irritant.

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. Initial symptoms following a large dose (>100ml) are those of alcohol intoxication progressing to vomiting, headache, stupor, convulsions and unconsciousness. Respiratory system involvement may occur 12 - 24 hours after ingestion. Symptoms may include hyperventilation and rapid shallow breathing. Death may occur from respiratory failure or pulmonary oedema.

Long Term Effects: No information available for product.

Acute toxicity / Chronic toxicity

No LD50 data available for the product.

12. Ecological Information

Acute Aquatic Toxicity	Category 3
Chronic Aquatic Toxicity	Category 3

Ecological Information for Ingredient 1

None specified.

Ecological Information for Ingredient 2

Ecotoxicity Toxicity to fish LC50 pimephales promelas (fathead minnow): 70,3 mg/l/96h

Toxicity to bacteria EC10 Pseudomonas putida: >= 1.000 mg/l/16h (IUCLID)

Acute fish toxicity LC50 : 70 mg/L 96h Fathead minnow pH effects

LC50 > 2000 mg/L 24h Guppy neutralised exposure

LC50 : 670 mg/L Japanese barbell read-across : ammonium sulfamate

LC50 : 203 mg/L 96h Catfish (fingerlings) read-across :ammonium sulfamate

LC50 : 650 mg/L 96h Cherry salmon yamame trout (fingerlings) read-across :ammonium sulfamate

Long-term fish toxicity

LC50 : 630 mg/L 10d Japanes barbell read-across :ammonium sulfamate

NOEC : 30 mg/L 7wk Rainbow trout read-across :ammonium sulfamate

Acute algae toxicity IC50 >> 29 mg/L 72h Green algae neutralised exposure

Sewage sludge studies

EC10 > 1000 mg/L 16h Bacteria neutralised exposure

EC10 > 1000 mg/L 24h Sludge neutralised exposure

Other ecotoxicity studies

LC50 : 680 mg/L 96h Caddisfly read-across :ammonium sulfamate

LC50 : 560 mg/L 10d Caddisfly read-across :ammonium sulfamate

LC50 : 2650 mg/L 96h Aquatic sowbug read-across :ammonium sulfamate

Persistence/Degradability Persistent.

Mobility High.

Environmental Fate Do NOT let product reach waterways, drains and sewers. The following applied to nitrates in general: Hazard for drinking water.

Biological effects : Harmful effect due to pH shift. Acidic properties. The solution in water is a strong acid.

Bioaccumulation Potential (Lit.) Bioaccumulation is not expected (log Pow <1). Negligible.

Environmental Impact No Data Available

Ecological Information for Ingredient 3

Ecotoxicity Avoid contaminating waterways.

Aquatic toxicity: Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

48hr EC50 (Daphnia magna): 19 mg/L.

96hr LC50 (fish): 5.6 mg/L (Brachydanio rerio)

Ecological Information for Ingredient 4

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as a Category Acute 1 Hazard. Acute toxicity estimate (based on ingredients): <1 mg/L Ecotoxicity: The products of degradation are less toxic than the product itself. Persistence and degradability: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. Mobility: Soluble in water.

Long-term aquatic hazard: This material has been classified as a Category Chronic 1 Hazard. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): <1 mg/L, where the substance is not rapidly degradable and/or BCF >= 500 and/or log Kow >= 4 Ecotoxicity: The products of degradation are less toxic than the product itself. Persistence and degradability: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. Mobility: Soluble in water.

Ecotoxicity: Harmful to terrestrial species.

Persistence and degradability: The product is partially biodegradable. Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Bioaccumulative potential: No information available.

Mobility: Mobile in soil. May leach to groundwater. Soluble in water.

Ecological Information for Ingredient 5

Ecotoxicity Not acutely toxic to fish LC50 > 100 mg/L (OECD 203)

Persistence/Degradability This product is readily biodegradable.

Mobility No information available on mobility for this product. Practically insoluble.

Environmental Fate May cause adverse side effects in an aquatic environment, biodegradable in seawater

Bioaccumulation Potential No information available on bioaccumulation for this product.

Environmental Impact No Data Available

Ecological Information for Ingredient 6

None specified.

Ecological Information for Ingredient 7

None specified.

Ecological Information for Ingredient 8

Toxicity to fish : No adverse effect has been observed in acute toxicity tests.

Toxicity to fish Xanthan Gum : 420 mg/l

Persistence and degradability

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)

Biodegradability

Xanthan Gum : 78 %

Exposure time: 28 d

Method: OECD Test Guideline 301F

Readily biodegradable

Biochemical Oxygen Demand (BOD)

Xanthan Gum : 200 mg/g

Bioaccumulative potential

Bioaccumulation

Xanthan Gum : The product is miscible in water and readily biodegradable in

Mobility in soil

both water and soil. Accumulation is not expected.

Distribution among environmental compartments

Xanthan Gum : No data available

Results of PBT and vPvB assessment

Xanthan Gum : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Other adverse effects

Additional ecological information

Xanthan Gum : This product has no known ecotoxicological effects.

Ecological Information for Ingredient 9

Avoid contaminating waterways.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Mobility: No information available.

13. Disposal considerations

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

14. Transport Information

Considered as a 'Dangerous Good' by the Australian Code for transport of Dangerous Goods by Road and Rail.

UN Number	1760
Proper shipping name or Technical Name	Corrosive liquids, n.o.s.
Transport hazard class	3
Packing Group	II
Environmental hazards for Transport Purposes	Classified as having an acute aquatic toxicity.
UFAC Code	TANZ 2E7C1
Special Precautions for user	None specified
Additional Information	None specified
Hazchem or Emergency Action Code	3WE

15. Regulatory Information

No information in this section.

16. Other information

Date of Preparation: 12 February 2022