

Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **QUATROZYME**

Recommended Use of the Chemical and Restrictions on Use Sanitiser.
For industrial or professional use only.

Supplier: Ixom Operations Pty Ltd
ABN: 51 600 546 512
Street Address: Level 8, 1 Nicholson Street
East Melbourne Victoria 3002
Australia

Telephone Number: +61 3 9906 3000
Emergency Telephone: **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Skin Irritation - Category 2
Eye Irritation - Category 2A
Respiratory Sensitisation - Category 1
Toxic to Reproduction - Category 2
Specific target organ toxicity (repeated exposure) - Category 2

SIGNAL WORD: DANGER



Hazard Statement(s):

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist, vapours, spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P281 Use personal protective equipment as required.
P285 In case of inadequate ventilation wear respiratory protection.

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Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P304+P341 IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.

Storage:

P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Poisons Schedule (SUSMP): S6 Poison.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Dipropylene glycol monomethyl ether	34590-94-8	5-15%	H227
Ethylene glycol	107-21-1	1-10%	H302 H373
Propylene glycol	57-55-6	1-10%	-
Sodium borate decahydrate	1303-96-4	1-5%	H319 H360FD
Subtilisin	9014-01-1	0.5-1.5%	H315 H318 H334 H335
Other component(s)	-	to 100%	-

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact:

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water and soap. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

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Indication of immediate medical attention and special treatment needed:

Treat symptomatically. Ethylene glycol can cause central nervous system depression and metabolic acidosis. Consider removal by gastric lavage. Blockade of the diacid/hydroxyacid metabolites may follow competitive inhibition of alcohol dehydrogenase with ethanol or 4-methyl pyrazole. Consider maintenance of a plasma ethanol level of 100 mg/dL to 150 mg/dL.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards arising from the chemical:

Non-combustible material.

Special protective equipment and precautions for fire-fighters:

Not combustible, however following evaporation of the water component of the material, the residual material can burn if ignited. On burning will emit toxic fumes, including those of oxides of carbon . Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. Shut off all possible sources of ignition. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. Use non-sparking tools.

7. HANDLING AND STORAGE

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

Precautions for safe handling:

Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep out of reach of children. When using do not eat, drink or smoke. Wash hands thoroughly after handling. Launder contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

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Borates, tetra, sodium salts (decahydrate): 8hr TWA = 5 mg/m³
Dipropylene glycol, methyl ether: 8hr TWA = 308 mg/m³ (50 ppm), Sk
Ethylene glycol (vapour): 8hr TWA = 52 mg/m³ (20 ppm), 15 min STEL = 104 mg/m³ (40 ppm), Sk
Glycerin mist: 8hr TWA = 10 mg/m³
Propane-1,2-diol (propylene glycol) (total: vapour & particulates): 8hr TWA = 474 mg/m³ (150 ppm); (particulates only): 8hr TWA = 10 mg/m³
Subtilisins (Proteolytic enzymes as 100% pure crystalline enzyme): Peak Limitation = 0.00006 mg/m³, Sen

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

`Sk' (skin) Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

`Sen' Notice - sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance and should not be further exposed to the substance.

Peak Limitation - a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

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Wear overalls, chemical goggles and impervious gloves. If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Clear to Slightly Turbid Liquid
Colour:	Light Fluorescent Green
Odour:	Citrus
Solubility:	Miscible with water.
Specific Gravity:	1.00-1.1
Relative Vapour Density (air=1):	Not available
Vapour Pressure (20 °C):	Not available
Flash Point (°C):	75 (Closed Cup); (Greater than 75°C self extinguishing)
Flammability Limits (%):	Not applicable
Autoignition Temperature (°C):	Not applicable
Boiling Point/Range (°C):	Not available
pH:	6.5-6.9 @25°C

10. STABILITY AND REACTIVITY

Reactivity:	No information available.
Chemical stability:	Stable.
Possibility of hazardous reactions:	Hazardous polymerisation will not occur.
Conditions to avoid:	Avoid exposure to heat. Avoid exposure to light.
Incompatible materials:	Incompatible with strong acids , strong bases , strong oxidising agents .
Hazardous decomposition products:	Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

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 and central nervous system depression. If the victim is showing signs of central system depression (like those of drunkenness) there is greater likelihood of the patient breathing in vomit and causing damage to the lungs.
Eye contact:	An eye irritant.

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Skin contact: Contact with skin will result in irritation.

Inhalation: Breathing in mists or aerosols may produce respiratory irritation. A respiratory sensitiser. Can cause possible allergic reactions, producing asthma-like symptoms.

Acute toxicity: No LD50 data available for the product.
Average Toxicity Estimate (ATE mix, oral): >5,000 mg/kg
Average Toxicity Estimate (ATE mix, dermal): >5,000 mg/kg
Average Toxicity Estimate (ATE mix, inhalation-dust/mist): >12.5 mg/L

Chronic effects: Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

Persistence/degradability: No information available.

Bioaccumulative potential: No information available.

Mobility in soil: No information available.

Aquatic toxicity: Harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Disposal methods:
Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:
This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

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Classification of the chemical:

Skin Irritation - Category 2
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Poisons Schedule (SUSMP): S6 Poison.

This product is regulated in Australia through the Therapeutic Goods Administration (TGA).

16. OTHER INFORMATION

Supplier Safety Data Sheet; 06/ 2014.

This safety data sheet has been prepared by Ixom Operations Pty Ltd (Toxicology & SDS Services).

Reason(s) for Issue:

5 Yearly Revised Primary SDS
Change in Formulation
Change in Hazardous Chemical Classification
Change in Physical Properties

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.