

Safety Data Sheet



Hazardous Chemical, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **ALGAESHIELD**

Recommended use: Algaecide - Blue Green Algae control, commercial and industrial water treatment applications.

Supplier: Aquapac Pty Ltd
ABN: 36 114 118 311
Street Address: 88 Lee Holm Road
St Marys NSW 2760
Telephone: 02 9673 1192
Facsimile: 02 9673 1193

Emergency Telephone number: 1800 HELP

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



Signal Word

Danger

Hazard Classifications

Acute Toxicity - Inhalation - Category 4
Skin Corrosion/Irritation - Category 2
Serious Eye Damage/Irritation - Category 1

Hazard Statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

Prevention Precautionary Statements

P102 Keep out of reach of children.
P103 Read label before use.
P261 Avoid breathing dust, fume, gas, mist, vapours or spray..
P264 Wash hands, face and all exposed skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.

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P321 Specific treatment (see Treat symptomatically. Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves. Administer Methylene Blue for methemoglobinemia, BAL, DMPS, EDTA and d-penicillamine. Jaundice and haemolysis can appear after 5-6 hours. Symptoms of liver failure can appear after 3-4 days. product label).

P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

Storage Precautionary Statement

Not allocated

Disposal Precautionary Statement

Not allocated

Poison Schedule: Unknown

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 8

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Copper sulphate pentahydrate	7758-99-8	18 - 22 %
Proprietary Ingredients		82-78 %
Sulfuric acid	7664-93-9	0.1-1.0 Trace
		100%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15 to 20 minutes. Call a poison control center or doctor for treatment

Eye contact: Hold eye open and rinse slowly and gently with water for 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.

PPE for First Aiders: Wear safety shoes, gloves, safety glasses. Available information suggests that gloves made from polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before

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storing or re-using.

Notes to physician: Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage. Have the product container or label with you when calling a poison control center or doctor or going for treatment

5. FIRE FIGHTING MEASURES

Hazchem Code: 2X

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Non-combustible material.

Fire fighting further advice: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

Flush with water into retaining area or container. Caution should be exercised regarding personal safety and exposure to released product.

LARGE SPILLS

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of 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. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods - Initial Emergency Response Guide No: 37

7. HANDLING AND STORAGE

Handling: Application, handling or storage equipment MUST consist of fiberglass, PVC, polypropylene, viton, corrosion resistant plastics. Never use mild steel, nylon, brass or copper around product. Always rinse and clean equipment thoroughly each night with plenty of fresh, clean water

Storage: Store in a safe place away from pets and keep out of the reach of children. Store away from excessive heat. Product will freeze. Always store product above 4 C (Do Not Freeze). Freezing may cause product separation. Always keep container closed. Keep away from galvanized pipe, and any nylon storage or handling equipment.

This material is classified as a Class 8 Corrosive as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

TWA		STEL		NOTICES
ppm	mg/m ³	ppm	mg/m ³	

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Sulphuric acid - 1 - 3 -

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These 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 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.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: 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.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protection Equipment: SAFETY SHOES, GLOVES, SAFETY GLASSES.

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear safety shoes, gloves, safety glasses. Available information suggests that gloves made from polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Mixers, loaders, applicators and other handlers must wear the following: long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves made of any water proof material (Chemical Resistance Category A), and protective eye wear. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Clear Liquid
Colour: Clear Blue Liquid
Odour: Minimal odour

Solubility: SOLUBLE IN WATER
Specific Gravity: 1.18 g/mL
Vapour Pressure (20 °C): 0.1mm 20 C
Boiling Point/Range (°C): 104.5 C
pH: <1

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

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10. STABILITY AND REACTIVITY

Chemical stability: Stable

Conditions to avoid: Avoid mixing with strong bases and strong reducing agents.

Incompatible materials: Incompatible with strong bases and strong reducing agents.

Hazardous decomposition products: Sulfur dioxide and sulfur trioxide may be produced with decomposition.

Hazardous reactions: No known hazardous reactions.

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:

Acute Effects

Inhalation: Harmful if inhaled. Continued overexposure to this solution may cause systemic toxicity. Overexposure may cause the following specific symptoms, depending on the concentration and duration of exposure: shallow respiration and lung function changes.

Skin contact: Continued overexposure to this solution may cause systemic toxicity.

Ingestion: Continued overexposure to this solution may cause systemic toxicity. Overexposure may cause the following specific symptoms, depending on the concentration and duration of exposure: vomiting.

Eye contact: Continued overexposure to this solution may cause systemic toxicity.

Acute toxicity

Inhalation: This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): $10.0 < LC50 \leq 20.0$ mg/L for vapours or $1.0 < LC50 \leq 5.0$ mg/L for dust and mist

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): $>2,000$ mg/Kg bw

Ingestion: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): $>2,000$ mg/Kg bw

Corrosion/Irritancy: Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 2 Hazard (reversible effects to skin).

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

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Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: Waters treated with this [product may be hazardous to aquatic organisms.

Long-term aquatic hazard: This material has been classified as non-hazardous. 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): >100 mg/L, where the substance is not rapidly degradable and/or $BCF < 500$ and/or $\log K_{ow} < 4$.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Pesticide wastes are acutely hazardous. Improper disposal of excess product mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance. In the event of spill, neutralize with limestone or baking soda before disposal. May deteriorate concrete.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".



UN No: 3264
Dangerous Goods Class: 8
Packing Group: III
Hazchem Code: 2X
Emergency Response Guide No: 37

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity. Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.

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MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea. This material is classified as a Marine Pollutant (P) according to the International Maritime Dangerous Goods Code.



UN No: 3264
Dangerous Goods Class: 8
Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN No: 3264
Dangerous Goods Class: 8
Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
Basel Convention (Hazardous Waste)
International Convention for the Prevention of Pollution from Ships (MARPOL)

16. OTHER INFORMATION

Reason for issue: First Issue

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.