

# Safety Data Sheet

**AQUAPAC**

Water Treatment & Specialty Chemicals

## Hazardous Chemical, Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Sulfuric Acid <51%**

#### Synonyms

Dihydrogen Sulfate; Dipping Acid; SULFURIC ACID; Sulfuric Acid <51%

#### Product Code

**Recommended use:** Fertilisers, explosives, battery acid (battery grades only), electroplating, dyes, drugs, detergents, adhesives, plastics, paints, tanning, food processing, water treatment.

**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

Corrosive to Metals - Category 1  
Skin Corrosion/Irritation - Category 1A

#### Hazard Statements

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

#### Prevention Precautionary Statements

P102 Keep out of reach of children.  
P103 Read label before use.  
P234 Keep only in original container.  
P260 Do not breathe dust, fume, gas, mist, vapours or spray.  
P264 Wash hands, face and all exposed skin thoroughly after handling.  
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.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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

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lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P321 Specific treatment (see product label).  
P363 Wash contaminated clothing before reuse.  
P390 Absorb spillage to prevent material damage.

## Storage Precautionary Statements

P405 Store locked up.  
P406 Store in original container with a resistant inner liner.

## Disposal Precautionary Statement

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

## Poison Schedule:

## 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 |
|--|-----------|------------|
| Sulfuric acid                              | 7664-93-9 | <51% %     |
| Water                                      | 7732-18-5 | BALANCE %  |
| Ingredients determined to be Non-Hazardous |           | Balance    |

## 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 the victim from the contaminated area, ensuring you do not become a victim yourself. IMMEDIATELY CALLS FOR MEDICAL ADVICE FROM A DOCTOR/PHYSICIAN OR POISON CENTRE. Remove any prostheses or other items that may block the airways. IMMEDIATELY TAKE THE VICTIM TO A HOSPITAL OR DOCTOR.

**Skin Contact:** Immediately flush the entire affected area with large amounts of cool water, using a safety shower if possible. Once flushing with water has begun, quickly remove all contaminated clothing and footwear. Continue washing the skin and hair with running water for a minimum of 15min or until instructed by the Poisons Centre. Transport to Hospital or Doctor.

**Eye contact:** Immediately begin flushing the eye with excess water, hold eyelids open and continue flushing with running water. Keep both upper and lower eyelids back from the eye to ensure complete removal of the material. Continue flushing for a minimum of 15min, or until advised to stop by the Poison Centre. Then transport to hospital without delay.

**Ingestion:** IMMEDIATELY CONTACT POISON CENTRE. IMMEDIATELY ORGANISE TRANSPORT TO A HOSPITAL OR DOCTOR. DO NOT induce vomiting. Immediately rinse the mouth with water; DO NOT give water to a person showing signs of reduced awareness. Provide liquid to the patient slowly and as much as they can comfortably drink.

**Notes to physician:** Treat symptomatically. Can cause corneal burns. Treat symptomatically.

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## 5. FIRE FIGHTING MEASURES

**Hazchem Code:** 2R

**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

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

### 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:** Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

**Storage:** 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. Store away from sources of heat and/or ignition. Store locked up. Store in corrosive resistant container with a resistant inner liner. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

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/m3 | ppm  | mg/m3 |         |
| 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.

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These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too 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:** OVERALLS, GLOVES, FACE SHIELD, RESPIRATOR.

Wear overalls, gloves, face shield, respirator. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from neoprene 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:** Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Clear Liquid  
**Colour:** Clear/colourless  
**Odour:** SLIGHT ODOUR

**Solubility:** COMPLETELY SOLUBLE  
**Specific Gravity (20 °C):** 1.20 - 1.40  
**pH:** <1

(Typical values only - consult specification sheet)

N Av = Not available, N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under normal ambient conditions, transport, storage, handling, and usage.

**Conditions to avoid:** AVOID moisture of all kinds, keep container well sealed, and keep in a well-ventilated space. AVOID smoking, naked lights, ignition sources and flames. Store in original containers. AVOID excess heat.

**Incompatible materials:** NEVER dilute by adding water INTO concentrated acid; ALWAYS dilute by adding concentrated acid INTO water. AVOID contact with alkalis; generates heat. AVOID contact with reactive metals, dithiocarbamates, isocyanates, mercaptans, nitrides, nitriles, sulfides, strong reducing agents; DO NOT store in aluminium or galvanised containers. Reactions will produce explosive/flammable hydrogen gas. AVOID contact with sulfites, nitrites, thiosulfates, dithionites, and even carbonates because these will liberate gases. AVOID contact with cyanide compounds; releases toxic hydrogen cyanide gas. CAN CAUSE rapid violent polymerisation in organic materials.

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**Hazardous decomposition products:** CAN FORM sulfur oxides, which can form corrosive sulfuric acid with moisture.

**Hazardous reactions:** None known.

## 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:** Can cause laryngeal and/or pulmonary oedema. Treat with 100% oxygen initially. Likely to cause respiratory distress and internal damage. Produces coagulation necrosis by desiccating proteins in specific tissues forming a coagulum (eschar).

**Skin contact:** Skin lesions require copious saline irrigation. Treat as both chemical AND thermal burns. Deep second degree burns may benefit from topical silver sulfadiazine.

**Ingestion:** Can cause laryngeal oedema. Immediately dilute with milk or water within 30min of ingestion. DO NOT attempt to neutralise as this is likely to cause exothermic reactions, resulting in internal thermal burns, and extend the corrosive injury. AVOID patient vomiting to prevent repeated exposure of the mucosa. DO NOT use charcoal. Lavage may be of use within 1h of ingestion.

**Eye contact:** DO NOT use neutralising agents as exothermic reaction may cause thermal burns in addition to chemical burns and extend the corrosive injury. Several litres of saline are required to fully irrigate the eye and under the eyelids. Consult an ophthalmologist regarding further treatment.

### Acute toxicity

**Inhalation:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

LC50 (Guinea pig): 0.018 mg/L/8h

LC50 (Mice): 0.32 mg/L/2h

LC50 (Rat): 0.51 mg/l/2h

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

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

LD50 (Rat): 1121 mg/kg (50% solution)

LD50 (Rat): 2140 mg/kg (98% sulfuric acid)

**Corrosion/Irritancy:** Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as a Category 1A Hazard (irreversible effects to skin).

Eye irritant (Rabbit): 1.38mg SEVERE

Eye irritant (Rabbit): 5mg/30s SEVERE

**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

**Product Name:** Sulfuric Acid <51%

**Reference No:** SULFURIC ACID <51%

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**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.

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

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** Prevent, by any means available, spillage from entering drains or water courses.

**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

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

## 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:** 2796  
**Dangerous Goods Class:** 8  
**Packing Group:** II  
**Hazchem Code:** 2R  
**Emergency Response Guide No:** 37

**Proper Shipping Name:** SULPHURIC ACID

**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

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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.

## MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



**UN No:** 2796  
**Dangerous Goods Class:** 8  
**Packing Group:** II  
**Proper Shipping Name:** SULPHURIC ACID

## 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:** 2796  
**Dangerous Goods Class:** 8  
**Packing Group:** II  
**Proper Shipping Name:** SULPHURIC ACID

## 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: Revised

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

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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.