

Product Name **SULPHURIC ACID (COOGEE CHEMICALS)**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** COOGEE CHEMICALS  
**Address** Cnr of Patterson and Kwinana Beach Roads, Kwinana, WA, AUSTRALIA, 6167  
**Telephone** (08) 9439 8200  
**Fax** (08) 9439 8300  
**Emergency** 1800 800 655  
**Email** businessrelations@coogee.com.au  
**Web Site** http://www.coogee.com.au

**Synonym(s)** BATTERY ACID • H<sub>2</sub>SO<sub>4</sub> • OIL OF VITRIOL • SULFURIC ACID • SULFURIC ACID (98%) • SULPHURIC ACID

**Use(s)** BATTERY ACID • EXPLOSIVE MANUFACTURE • FERTILISER

## 2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

### RISK PHRASES

R35 Causes severe burns.

### SAFETY PHRASES

S1/2 Keep locked up and out of reach of children.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S30 Never add water to this product.

S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<b>UN No.</b>	1830	<b>DG Class</b>	8	<b>Subsidiary Risk(s)</b>	None Allocated
<b>Packing Group</b>	II	<b>Hazchem Code</b>	2P	<b>EPG</b>	8A1

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
SULPHURIC ACID	H <sub>2</sub> -S-O <sub>4</sub>	7664-93-9	98%
WATER	H <sub>2</sub> O	7732-18-5	2%

## 4. FIRST AID MEASURES

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

**Inhalation** If inhaled, remove from contaminated area. To protect rescuer, use a Full-face Type B (Inorganic and acid gas) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**Advice to Doctor** Treat symptomatically

**First Aid Facilities** Eye wash facilities and safety shower should be available.

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## 5. FIRE FIGHTING MEASURES

<b>Flammability</b>	Non flammable. May evolve toxic gases (sulphur oxides) when heated to decomposition. May evolve flammable hydrogen gas in contact with some metals.
<b>Fire and Explosion</b>	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
<b>Extinguishing</b>	Prevent contamination of drains or waterways.
<b>Hazchem Code</b>	2P

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spillage</b>	Contact emergency services where appropriate. Use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Contain spillage, then cover / absorb spill with sodium bicarbonate or 50 -50 mixture of sodium carbonate and calcium hydroxide. Collect for complete neutralisation and appropriate disposal.
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## 7. STORAGE AND HANDLING

<b>Storage</b>	Store in secured, cool, dry, well ventilated area, removed from oxidising agents, alkalis, most metals, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled and protected from physical damage when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate fire protection and ventilation systems.
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

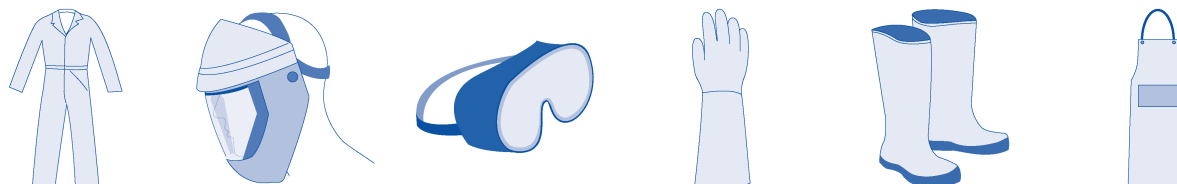
## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds	Ingredient	Reference	TWA		STEL	
			ppm	mg/m3	ppm	mg/m3
	Sulphuric acid	ASCC (AUS)	--	1.0	--	3.0

**Biological Limits** No biological limit allocated.

**Engineering Controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE** Wear splash-proof goggles, a PVC apron, rubber boots, full-length rubber or full-length PVC gloves, a faceshield and coveralls. Wear full-length PVC or full-length rubber gloves, splash-proof goggles, a PVC apron, rubber boots, full PVC coveralls (or better) and a faceshield. When using large quantities or where heavy contamination is likely, wear: impervious coveralls. Where an inhalation risk exists, wear: a Full-face Type B (Inorganic and Acid gas) or an Air-line respirator.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	CLEAR TO BROWN LIQUID	<b>Solubility (Water)</b>	SOLUBLE
<b>Odour</b>	STRONG ODOUR	<b>Specific Gravity</b>	1.8
<b>pH</b>	ACIDIC	<b>% Volatiles</b>	NOT AVAILABLE
<b>Vapour Pressure</b>	< 0.001 mm Hg @ 20°C	<b>Flammability</b>	NON FLAMMABLE
<b>Vapour Density</b>	NOT AVAILABLE	<b>Flash Point</b>	NOT RELEVANT
<b>Boiling Point</b>	335°C	<b>Upper Explosion Limit</b>	NOT RELEVANT

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Melting Point 10°C Lower Explosion Limit NOT RELEVANT  
Evaporation Rate NOT AVAILABLE

## 10. STABILITY AND REACTIVITY

**Chemical Stability** Potential for exothermic hazard.  
**Conditions to Avoid** Avoid heat, sparks, open flames and other ignition sources.  
**Material to Avoid** Incompatible with oxidising agents (eg. hypochlorites), alkalis (eg. hydroxides) and some metals.  
**Decomposition** May evolve toxic gases (sulphur oxides) when heated to decomposition.  
**Hazardous Reactions** Polymerization is not expected to occur.

## 11. TOXICOLOGICAL INFORMATION

**Health Hazard Summary** Highly corrosive. This product has the potential to cause serious adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure may result in severe skin, eye and respiratory burns with permanent lung and tissue damage. Upon dilution, the potential for adverse health effects may be reduced.  
**Eye** Highly corrosive. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and corneal burns with possible permanent damage.  
**Inhalation** Highly corrosive - severe irritant. Over exposure may result in mucous membrane irritation of the respiratory tract, coughing, bronchitis, ulceration, bloody nose, lung tissue damage, chemical pneumonitis, pulmonary oedema and death.  
**Skin** Highly corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and severe burns.  
**Ingestion** Highly corrosive. Ingestion may result in burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea. Ingestion of large quantities may result in ulceration, unconsciousness, convulsions and death.  
**Toxicity Data** SULPHURIC ACID (7664-93-9)  
LC50 (Inhalation): 18 mg/m<sup>3</sup> (guinea pig)  
LD50 (Ingestion): 2140 mg/kg (rat)  
TCLo (Inhalation): 3 mg/m<sup>3</sup>/24 weeks (human)

## 12. ECOLOGICAL INFORMATION

**Environment** Sulphuric acid is miscible with water and its dilution will increase the velocity of downward movement in the soil where it may dissolve the soil material. Sulphuric acid is harmful to aquatic life in very low concentrations. May cause corrosion and deterioration of many common materials found in the environment (eg steel, limestone).

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal** Wearing the protective equipment detailed above, neutralise to pH 6-8 by SLOW addition to a saturated sodium bicarbonate solution or similar basic solution. Dilute with excess water and flush to drain. Waste disposal should only be undertaken in a well ventilated area.  
**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION



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**CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

<b>Shipping Name</b>	SULFURIC ACID with more than 51% acid			<b>Subsidiary Risk(s)</b>	None Allocated
<b>UN No.</b>	1830	<b>DG Class</b>	8	<b>EPG</b>	8A1
<b>Packing Group</b>	II	<b>Hazchem Code</b>	2P		

## 15. REGULATORY INFORMATION

**Poison Schedule** Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

**AICS** All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

**Additional Information** ACIDS: When mixing acids with water (diluting), caution must be taken as heat will be generated which causes violent spattering. Always add a small volume of acid to a large volume of water, NEVER the reverse.

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.

### ABBREVIATIONS:

ADB - Air-Dry Basis.

BEI - Biological Exposure Indice(s)

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

EINECS - European INventory of Existing Commercial chemical Substances.

IARC - International Agency for Research on Cancer.

M - moles per litre, a unit of concentration.

mg/m<sup>3</sup> - Milligrams per cubic metre.

NOS - Not Otherwise Specified.

NTP - National Toxicology Program.

OSHA - Occupational Safety and Health Administration.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

TWA/ES - Time Weighted Average or Exposure Standard.

### 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 Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert 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.

COLOUR RATING SYSTEM: RMT has assigned all Chem Alert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all Chem Alert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

**Product Name**      **SULPHURIC ACID (COOGEE CHEMICALS)****Report Status**      This Chem Alert report has been independently compiled by RMT's scientific department utilising the original Material Safety Data Sheet ('MSDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue.

This Chem Alert report does not constitute the manufacturer's original MSDS and is not intended to be a replacement for same. It is provided to subscribers of Chem Alert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

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