

## Safety Data Sheet Sulfuric Acid, 3%<5%

SDS no. ET69BX5G • Version 1.0 • Date of issue: 2023-02-12

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### SECTION 1: Identification

#### GHS Product identifier

Product name Sulfuric Acid, 3%<5%

#### Recommended use of the chemical and restrictions on use

Laboratory reagent.

#### Supplier's details

Name ChemSupply Australia Pty Ltd  
Address 38-50 Bedford Street  
5013 Gillman South Australia  
Australia

Telephone 08 8440 2000  
email [www.chemsupply.com](http://www.chemsupply.com)

#### Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

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### SECTION 2: Hazard identification

#### General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

#### Classification of the substance or mixture

#### GHS classification in accordance with: UN GHS revision 7

- Corrosive to metals, Cat. 1
- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 2

#### GHS label elements, including precautionary statements

#### Pictograms



**Signal word**

**Danger**

**Hazard statement(s)**

H290  
H315  
H318

May be corrosive to metals  
Causes skin irritation  
Causes serious eye damage

**Precautionary statement(s)**

P234  
P264  
P280  
P302+P352  
P305+P351+P338  
  
P310  
P321  
P332+P313  
P362+P364  
P390  
P406

Keep only in original packaging.  
Wash hands thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF ON SKIN: Wash with plenty of water/soap  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER/doctor/physician  
Specific treatment (see ... on this label).  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
Absorb spillage to prevent material-damage.  
Store in a corrosive resistant/... container with a resistant inner liner.

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**SECTION 3: Composition/information on ingredients**

**Mixtures**

Molecular weight: 98.08

**Components**

Component	Concentration
<b>Water (CAS no.: 7732-18-5; EC no.: 231-791-2)</b>	<b>95 - 97 % (weight)</b>
CLASSIFICATIONS: No data available. HAZARDS: No data available.	
<b>Sulfuric acid (CAS no.: 7664-93-9; EC no.: 231-639-5; Index no.: 016-020-00-8)</b>	<b>&gt;= 3 - &lt; 4.9 % (weight)</b>
CLASSIFICATIONS: Skin corrosion/irritation, Cat. 1A. HAZARDS: H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1A; H314: C ≥ 15 %; Skin Irrit. 2; H315: 5 % ≤ C < 15 %; Eye Irrit. 2; H319: 5 % ≤ C < 15 %	

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**SECTION 4: First-aid measures**

**Description of necessary first-aid measures**

General advice	First Aid Facilities: Maintain eyewash fountain and normal washroom facilities in work area.
If inhaled	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
In case of skin contact	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
In case of eye contact	If in eyes, hold eyelids apart and flush eye continuously with running water. Continue

flushing until advised to stop by a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes.

If swallowed

If swallowed, do NOT induce vomiting.

**Most important symptoms/effects, acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**Indication of immediate medical attention and special treatment needed, if necessary**

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

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**SECTION 5: Fire-fighting measures**

**Suitable extinguishing media**

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam. This material is substantially water.

**Specific hazards arising from the chemical**

Irritating and highly toxic fumes and gases, including toxic oxides of sulfur (SO<sub>x</sub>). Contact with most metals (such as aluminium, tin, lead and zinc) causes formation of flammable and explosive hydrogen gas (H<sub>2</sub>). However, the risk is reduced due to the weaker concentration of sulfuric acid present.

Material does not burn. Runoff may pollute waterways.

**Special protective actions for fire-fighters**

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

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**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

**Methods and materials for containment and cleaning up**

Neutralize with dilute sodium hydroxide, lime or sodium carbonate.

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**SECTION 7: Handling and storage**

**Precautions for safe handling**

Avoid contact with eyes, skin, or clothing. May corrode metallic surfaces.

**Conditions for safe storage, including any incompatibilities**

Store in tightly closed containers, in a cool, dry, well-ventilated area away from incompatible substances.

Corrosive in presence of aluminium, zinc, stainless steel(304), stainless steel(316), copper. Moderate corrosive effect on bronze.

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**SECTION 8: Exposure controls/personal protection**

**Appropriate engineering controls**

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

**Individual protection measures, such as personal protective equipment (PPE)**

**Eye/face protection**

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

**Skin protection**

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Normally not required but if in doubt ensure hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

**Body protection**

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

**Respiratory protection**

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

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**SECTION 9: Physical and chemical properties**

**Basic physical and chemical properties**

Physical state	Liquid
Appearance	Clear, colourless liquid.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	May start to solidify at -0.1 °C based on data for: water.
Boiling point or initial boiling point and boiling range	~100°C
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	Acidic; pH of 0.01 N solution (~0.05%): 2.1; pH of 0.1 N solution (~0.5%): 1.2; pH of 1.0 N solution (~5.0%): 0.3.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Miscible. Solubility in Organic Solvents: Insoluble in methanol, diethyl ether, n-octanol (0.5%).
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: Approx. 1
Relative vapor density	No data available.

**Particle characteristics**

No data available.

**Supplemental information regarding physical hazard classes**

No data available.

**Further safety characteristics (supplemental)**

No data available.

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**SECTION 10: Stability and reactivity**

**Reactivity**

Stable under normal conditions of storage and handling.

Reacts with incompatible materials

**Chemical stability**

Stable under normal temperatures, pressures and conditions of use and storage.

**Possibility of hazardous reactions**

Flammable hydrogen gas is generated by the action of the acid on most metals (i.e. lead, copper, tin, zinc, aluminium, etc.).

Reacts with alkali metals and alkaline earth metals.

**Conditions to avoid**

Metals, excess heat, extremes of temperature, direct sunlight, combustible materials, organic materials, oxidizers, amines, bases, and incompatible materials.

**Incompatible materials**

Alkali metals, alkaline earth metals, alkali compounds, ammonia, alkali hydroxide solutions, metals, metal alloys, organic solvents, permanganates.

**Hazardous decomposition products**

Irritating and highly toxic fumes and gases, including toxic oxides of sulfur (SO<sub>x</sub>). Contact with most metals (such as aluminium, tin, lead and zinc) causes formation of flammable and explosive hydrogen gas (H<sub>2</sub>). However, the risk is reduced due to the weaker concentration of sulfuric acid present.

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**SECTION 11: Toxicological information**

**Information on toxicological effects**

**Acute toxicity**

Ingestion of this product may cause irritation and possible burns of mucous membranes in the mouth, pharynx, oesophagus, and gastrointestinal tract, causing nausea, vomiting and diarrhoea.

Inhalation of product vapours may cause irritation to the mucous membranes of the nose, throat and respiratory system, with sore throat, coughing, and shortness of breath.

**Skin corrosion/irritation**

May causes irritation to skin and mucous membranes. Symptoms may include redness, itching, and pain.

**Serious eye damage/irritation**

Eye: Symptoms may include tearing, blurred vision, redness, stinging, and pain.

**Respiratory or skin sensitization**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**Specific target organ toxicity (STOT) - single exposure**

Not classified based on available information.

**Specific target organ toxicity (STOT) - repeated exposure**

Not classified based on available information.

**Aspiration hazard**

Not expected to be an aspiration hazard.

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**SECTION 12: Ecological information**

**Toxicity**

Ecotoxicity: The following applies to sulfuric acid in general: Harmful effect on aquatic organisms. Toxic effect on fish and algae. Caustic even in diluted form. Does not cause biological oxygen deficit. Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities. Neutralisation possible in waste water treatment plants.

Short Summary of Assessment of Environmental Impact: When released into the soil, this material may leach into groundwater. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet and dry deposition.

Acute Toxicity - Daphnia: Daphnia magna EC50: 29 mg/l /24 h (pure substance).

**Persistence and degradability**

No data available.

**Bioaccumulative potential**

An enrichment in organisms should not be expected.

**Mobility in soil**

No data available.

**Results of PBT and vPvB assessment**

No data available.

**Endocrine disrupting properties**

No data available.

**Other adverse effects**

No data available.

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## **SECTION 13: Disposal considerations**

### **Disposal methods**

#### **Product disposal**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

#### **Waste treatment**

Neutralise remaining product with lime, soda ash or sodium bicarbonate, adjusting pH to 6-8. Flush to sewer as greatly diluted solution.

#### **Sewage disposal**

An enrichment in organisms should not be expected.

#### **Other disposal recommendations**

Do not discharge this material into waterways, drains and sewers.

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## **SECTION 14: Transport information**

### **ADG (Road and Rail)**

UN Number: 3264

Class: 8

Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS SULFURIC ACID)

### **Hazchem emergency action code (EAC)**

2R

### **IMDG**

UN Number: 3264

Class: 8

Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS SULFURIC ACID)

### **IATA**

UN Number: 3264

Class: 8

Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS SULFURIC ACID)

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## **SECTION 15: Regulatory information**

### **Safety, health and environmental regulations specific for the product in question**

#### **Australia SUSMP**

Poison Schedule: S6

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## **SECTION 16: Other information**

### **Further information/disclaimer**

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the

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