

Material Safety Data Sheet



*This material is hazardous according to criteria of NOHSC.
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.*

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: ALUMINIUM SULFATE SOLUTION

Synonyms: Aluminium sulphate solution

Supplier: Orica Australia Pty Ltd

ABN: 004 117 828

Street Address: 1 Nicholson Street,
Melbourne 3000
Australia

Telephone Number: +61 3 9665 7111

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Product Description: Water treatment.

Components / CAS Number	Proportion	Risk Phrases
Sulfuric acid 7664-93-9	Trace	R35, R41
Aluminium sulfate 10043-01-3	25.7-26.8% (50.0-52.3% as Al ₂ (SO ₄) ₃ 18H ₂ O	R36/38
Water 7732-18-5	to 100%	-

3. HAZARDS IDENTIFICATION

Risk Phrases: Irritating to eyes and skin.

Poisons Schedule: None allocated.

4. FIRST AID MEASURES

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. For all but the most minor symptoms arrange for patient to be seen by a doctor as soon as possible, either on site or at the nearest hospital.

Skin Contact: If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and

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hair thoroughly with running water. 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 the Poisons Information Centre or a doctor, or for at least 15 minutes.

Ingestion: Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Notes to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Specific Hazards: Non-combustible material.

Fire-fighting advice: Decomposes on heating emitting toxic fumes, including those of oxides of sulfur. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

Suitable Extinguishing Media: Not combustible, however, if material is involved in a fire use: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Neutralise with lime or soda ash. Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water. If contamination of sewers or waterways has occurred advise local emergency services.

7. HANDLING AND STORAGE

Handling advice: Avoid skin and eye contact and breathing in vapour, mists and aerosols.

Storage advice: Store in cool place and out of direct sunlight. 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

Occupational Exposure Limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for constituent(s):

Aluminium, soluble salts (as Al): 8hr TWA = 2 mg/m³

Sulfuric acid: 8hr TWA = 1 mg/m³, 15 min STEL = 3 mg/m³

As published by the National Occupational Health and Safety Commission.

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

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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 work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

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.

Engineering Control Measures:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. If inhalation risk exists: Use with local exhaust ventilation or while wearing suitable mist respirator. Keep containers closed when not in use.

Personal Protective Equipment:

Orica Personal Protection Guide No. 1, 1998: C - OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES.

Wear overalls, chemical goggles and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If risk of inhalation exists, wear suitable mist respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Clear to Pale Brown
Odour:	Odourless
Solubility:	Miscible with water.
Specific Gravity:	1.29-1.32 @25°C
Relative Vapour Density (air=1):	Not available
Vapour Pressure (20 °C):	Not available
Flash Point (°C):	Not applicable
Flammability Limits (%):	Not applicable
Autoignition Temperature (°C):	Not available
Boiling Point/Range (°C):	>100
pH:	2.3-2.8

10. STABILITY AND REACTIVITY

Stability: This material is considered stable. Hazardous polymerization will not occur. Hazardous decomposition products may include oxides of sulfur. Reacts with alkalis . Corrosive to most metals .

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:

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Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation.
Eye contact: An eye irritant.
Skin contact: Contact with skin will result in severe irritation.
Inhalation: Breathing in mists or aerosols may produce respiratory irritation.

Long Term Effects:
No information available for the product.

Toxicological Data:
No LD50 data available for the product. For the constituent ALUMINIUM SULFATE:

Oral LD50 (mice): 6207 mg/kg.

12. ECOTOXICOLOGICAL INFORMATION

Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Refer to Waste Management Authority. Dispose of material through a licensed waste contractor. Decontamination and destruction of containers should be considered.

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.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport

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

15. REGULATORY INFORMATION

Classification: This material is hazardous according to criteria of NOHSC.
Xi: Irritant

Risk Phrase(s): R36/38: Irritating to eyes and skin.

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Safety Phrase(s): S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

Poisons Schedule: None allocated.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Supplier Material Safety Data Sheet; 02/ 2005.

This material safety data sheet has been prepared by SH&E Shared Services, Orica.

Reason(s) for Issue:
Change in Formulation
Change in Physical Properties

This MSDS 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 Orica Limited 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 Orica representative or Orica Limited at the contact details on page 1.

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

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