



SALES & SERVICES

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Safety Data Sheet

1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

1.1 Product identifiers

Product name : ALUMINIUM SULPHATE SOLUTION

1.2 Other means of identification

Aluminium sulfate solution; Liquid alum

1.3 Recommended use of the product and restrictions on use

Swimming pool chemical; water flocculant.

1.4 Details of supplier of the safety data sheet

Company : AGent Sales & Services Pty Ltd

Street address : 38 May Holman Drive, Bassendean, Western Australia 6054

Telephone : (+61 8) 6270 4500

Fax : (+61 8) 6270 4544

1.5 Emergency telephone number

Telephone : 1300 883 844

2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; **DANGEROUS GOODS**.

This material is hazardous according to Safe Work Australia; **HAZARDOUS SUBSTANCE**.

2.1 GHS Classification

Acute toxicity (Category 4)

Eye irritation (Category 2A)

Skin irritation (Category 2)

2.2 GHS Label elements, including precautionary statements

Pictogram :



Signal word : WARNING

Hazard statement(s)

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statement(s)

Prevention

P102 Keep out of reach of children.
P234 Keep only in original container.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor / physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see First Aid Measures).
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before re-use.

Storage

P406 Store in corrosive resistant container with a resistant inner liner.

Disposal

No disposal statements.

2.3 Other hazards

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
Aluminium sulphate	10043-01-3	H315; H319	20 - 40
Water	7732-18-5	N/A	Balance

For the full text of the H-Statements mentioned in this section, see Section 16

4. FIRST AID MEASURES

4.1 Description of First Aid measures

General advice

Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. Wash contaminated clothing before re-use.

In case of eye contact

In case of eye contact, check for and remove any contact lenses. Immediately rinse thoroughly with plenty of running water for at least 15 minutes, keeping eyelids open. In all cases of eye contamination it is a sensible precaution to seek medical advice.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. If swallowed, give a glass of water to drink. Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

4.4 First Aid facilities

Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Not combustible, however, if material is involved in a fire use: Extinguishing media appropriate to surrounding fire conditions.

5.2 Special hazards arising from the chemical

Sulphur oxides, Aluminium oxide

5.3 Special protective equipment and precautions for fire fighters

Wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

5.4 Hazchem code

2X

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Slippery when spilt. Avoid accidents, clean up immediately. Use personal protective equipment. Evacuate personnel to safe areas. For personal protection see Section 8.

6.2 Environmental precautions

Do not let product enter drains or waterways.

6.3 Methods and materials for containment and cleaning up

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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid skin and eye contact and breathing in vapour, mists and aerosols. For precautions see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool, dry well-ventilated place. Keep container closed when not in use – check regularly for leaks. Store away from incompatible materials described in Section 10.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

No value assigned for this specific material by SWA. However, for constituent(s):

Occupational Exposure Limits

Chemical Name	Reference	TWA – Peak Limitation		STEL		Carcinogen Category	Notices
		ppm	mg/m ³	ppm	mg/m ³		
Aluminium, soluble salts (as Al)	ASCC	-	2	-	-	-	-
Inspirable dust	ASCC	-	10	-	-	-	-

As published in "Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA.

Biological Limits

None allocated for this product.

8.2 Exposure controls

Appropriate engineering controls

Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Personal protective equipment (PPE)

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods and environmental factors.

Eye/face protection

Safety glasses or goggles. See Australian Standards (AS/NZS 1336 & 1337).

Skin protection

Wear protective gloves and protective clothing appropriate for the risk of exposure. See Australian Standards (AS 2161 & 2919 and AS/NZS 2210). Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.

Respiratory protection

If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator. See Australian Standards (AS/NZS 1715 & 1716).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form : Liquid (Solution) Colour : Clear, off-white to milky, grey
Odour:	Odourless
pH:	1.8 – 2.4
Melting Point:	- 15 °C
Boiling Point:	102 °C
Decomposition Temperature:	770°C
Evaporation Rate:	Not applicable
Flash Point:	No data available
Auto Ignition Temperature:	No data available
Flammability:	Not flammable
Upper Explosive Limit:	No data available
Lower Explosive Limit:	No data available
Specific Gravity:	1.31-1.33 @ 20 °C (28% w/w)
Vapour Density (air=1):	No data available
Vapour Pressure:	No data available
% Volatiles:	No data available
Solubility in water:	Miscible

10. STABILITY AND REACTIVITY

10.1 Reactivity

Corrosive to metals.

10.2 Chemical stability

Stable under normal ambient, and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Corrosive to some metals. Corrosive to aluminium. Corrosive to mild steel. Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Avoid contact with alkalis. This product may react with reducing agents.

10.5 Incompatible materials

Incompatible with alkalis. Incompatible with some metals and other materials (see Section 10.3).

10.6 Hazardous decomposition products

When involved in a fire, this product may generate sulphur oxides. Hydrolysis to form dilute sulphuric acid. Oxides of aluminium.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No LD₅₀ data available for this product.
For the constituent ALUMINIUM SULPHATE:
LD₅₀ Oral (mice) : > 6,207 mg/kg

Serious eye damage/eye irritation

For the constituent ALUMINIUM SULPHATE:
Standard Draize Test (rabbit) : Severe irritant (10 mg/24h)

Health Effects

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:

Eye contact : An eye irritant.

Skin contact : Contact with skin will result in irritation.

Ingestion : Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation. May cause burns to mouth and throat.

Inhalation : Breathing in mists or aerosols may produce respiratory irritation.

11.2 Information on possible routes of exposure

The substance can be absorbed into the body by ingestion and by inhalation.

11.3 Additional Information

RTECS: Not available for this product

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Avoid contaminating waterways.

Toxic to aquatic organisms. 96hr LC50 (static) (Salvelinus fontinalis): 3.6 mg/L

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods and containers

Ensure waste disposal conforms to relevant local, state and federal authority waste disposal regulations. All empty packaging should be disposed of as unused product.

13.3 Special precautions for landfill or incineration

Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Classified as a Dangerous Goods by the criteria of the ADG Code for transport by road or rail

Classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea

Classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

14.1 UN number

ADG : 3264

IMDG : 3264

IATA : 3264

14.2 Proper shipping name

ADG : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS ALUMINIUM SULPHATE)

IMDG : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS ALUMINIUM SULPHATE)

IATA : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS ALUMINIUM SULPHATE)

14.3 Transport hazard class	ADG : 8 Corrosive	IMDG : 8 Corrosive	IATA : 8 Corrosive
14.4 Packing group	ADG : III	IMDG : III	IATA : III
14.5 Environmental hazards	ADG : No	IMDG Marine Pollutant : No	IATA : No
14.6 Special precautions for users	No data		
14.7 Hazchem code	ADG : 2X	IMDG EMS : F-A, S-B	
14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)	37		

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

None allocated

Carcinogen classification under WHS Regulations 2011, Schedule 10

Not listed

Notification status

AICS On the inventory or in compliance with the inventory

16. OTHER INFORMATION

Key / legend to abbreviations and acronyms used in the MSDS

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
H315	Causes skin irritation
H319	Causes serious eye irritation
TWA	Time weighted average
STEL	Short term exposure level
SWA	Safe Work Australia
Peak Limitations	A ceiling concentration that should not be exceeded over a measurement period, which should be as short as possible, but not exceeding 15 minutes
LD ₅₀	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
LC ₅₀	Lethal concentration that kills 50% of an animal population within a specified time
TD Lo	The lowest dose of a substance known to have produced signs of toxicity
RTECS	Registry of Toxic Effects of Chemical Substances
g/L	Grams per litre
g/cm ³	Grams per cubic centimetre
mg/m ³	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline
WHS	Work Health and Safety

Literature references

"Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA
Work Health and Safety Regulations 2011

Reason(s) for Issue:

Revised primary SDS
Reclassification of Hazard Identification and Transport Information

Disclaimer

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