Infosafe No™ 1CH0R Issue Date :November 2018 RE-ISSUED by CHEMSUPP

Product Name **ALUMINIUM SULFATE**

Classified as hazardous

1. Identification

GHS Product Identifier	ALUMINIUM SULFATE
Company Name	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia
Telephone/Fax Number	Tel: (08) 8440-2000
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
(24 hour a day available)	CHEMCALL: 1800 127 406 (Australia) / +64-4-917-9888 (International)
E-mail Address	www.chemsupply.com.au
Recommended use of the chemical and restrictions on use	Sizing paper, lakes, alums, dyeing mordant foaming agent in fire foams, cloth fireproofing, white leather tannage, catalyst in manufacturing ethane, pH control in paper industry, water proofing agent for concrete, clarifier for fats and oils, lubricating compositions, deodoriser and decolouriser in petroleum refining, sewage precipitating agent, water purification, food additive, antiperspirants, agricultural pesticides and laboratory reagent.

Other Names

Name	Product Code
Aluminum trisulfate	
Cake Alum	
Patent Alum	
Aluminium sulfate octadecahydrate	
ALUMINIUM SUFATE 14 Hydrate	AT038
ALUMINIUM SUFATE 18 Hydrate	AA296

Other Information

Chem-Supply 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 Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture	Eye Damage/Irritation: Category 1 Corrosive to Metals: Category 1
Signal Word (s)	DANGER
Hazard Statement (s)	H290 May be corrosive to metals. H318 Causes serious eye damage.
Pictogram (s)	Corrosion



Precautionary statement – Prevention	P234 Keep only in original container. P280 Wear protective gloves/protective clothing/eye protection/face protection.

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Precautionary statement – 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 CENTER or doctor/physician. P390 Absorb spillage to prevent material damage.
Precautionary statement – Storage	P406 Store in corrosive resistant/... container with a resistant inner liner.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.
Other Information	POTENTIAL FOR ACCUMULATION: Ingested material is not easily absorbed. It reacts with phosphate, forming an insoluble compound which is readily passed out of the body. Inhaled dust may accumulate in the lungs until slowly cleared.

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Aluminium Sulfate 14 Hydrate	17927-65-0	100 %
	Aluminium Sulfate 18 Hydrate	7784-31-8	100 %

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.
Skin	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. If persistent irritation occurs, obtain medical attention.
Eye contact	If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

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.
Hazards from Combustion Products	Emits toxic fumes of aluminium oxide and sulfur oxides at temperatures above 770°C (decomposition).
Hazchem Code	2X
Precautions in connection with Fire	Wear SCBA and structural firefighter's uniform.

6. Accidental release measures

Personal Precautions	Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

7. Handling and storage

Precautions for Safe Handling	Avoid ingestion and inhalation of material. Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.
Conditions for safe storage, including any incompatibilities	Store in original containers or in corrosion-resistant containers. Store in a cool, dry place. Keep containers tightly closed.
Corrosiveness	Corrosive to metals such as aluminium if in contact with moisture.
Storage Regulations	Refer Australian Standard AS 3780-1994 'The storage and handling of corrosive substances'.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Aluminium Sulfate 18 Hydrate			2		Aluminium, soluble salts (as Al)

Other Exposure Information

These Workplace 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 workplace 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.
A time weighted average (TWA) has been established for Aluminium, soluble salts (as Al) (Safe Work Australia) of 2 mg/m3. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.

Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye 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.
Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Body Protection	Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Solid
Appearance	Colourless, white lustrous crystals or granules.

Odour	Odourless.
Melting Point	770 °C (decomposition)
Solubility in Water	Soluble (364 g/L @ 20 °C). Material hydrolyze in water to form sulfuric acid.
Solubility in Organic Solvents	Insoluble in alcohol.
Specific Gravity	1.69 at 17 °C (water = 1)
pH	2.5-4.0 (20 g/1, H2O, 20 °C)
Flammability	Non combustible material.
Molecular Weight	666.42 ALUMINIUM SUFATE 18 Hydrate 594.42 ALUMINIUM SUFATE 14 Hydrate
Other Information	Taste: Sweet, Mildly astringent.

10. Stability and reactivity

Chemical Stability	Stable.
Conditions to Avoid	Corrosive to metals in the presence of water.
Incompatible Materials	Water, strong bases and strong oxidising agents. Ammonia, water and amines.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, sulfur oxides.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	May be harmful if ingested. Causes irritation of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Symptoms include of abdominal pain, diarrhea, nausea and vomiting. Concentrated solutions (over 20%) can cause burns of the mouth, nausea, vomiting, bleeding stomach, incoordination, muscle spasms and kidney injury.
Inhalation	May be harmful if inhaled. May cause irritation to mucous membranes and upper respiratory tract with acute symptoms as sore throat, shortness of breath, and coughing. High concentrations may cause congestion and constriction of airways.
Skin	May cause skin irritation with acute symptoms of redness, itching and pain.
Eye	Corrosive to eyes causing irritation, redness, pain and inflammation. Risk of serious damage to eyes.
Carcinogenicity	Not classified as a human carcinogen.
Chronic Effects	Prolonged or repeated exposure can cause irritation and numbing of the fingers. Repeated ingestion of this material may cause phosphate deficiency, which can weaken bones. Introduction of aluminium compounds directly into the blood stream may contribute to the development of neurological effects resembling senility.
Mutagenicity	No evidence of mutagenic properties.

12. Ecological information

Ecological Information	Adverse ecological effects cannot be excluded in the event of improper handling or disposal.
Environmental Protection	Do not allow product to enter drains, waterways or sewers.

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following: Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, Class 7; and are incompatible with food and food packaging in any quantity.
U.N. Number	3260
UN proper shipping name	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. - (Aluminium sulphate hydrate)
Transport hazard class(es)	8
Hazchem Code	2X
Packing Group	III
IERG Number	37

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'. Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.
Empirical Formula & Structural Formula	Al2(SO4)3.14-18H2O

User Codes	**User Field Title**	**User Code**
User Codes	CAS No.	7784-31-8

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