

Product Name **ALUMINIUM SULPHATE POWDER**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Stock Number 3
Supplier Name **MINTECH CHEMICAL INDUSTRIES**
Address 1 Ward Road, East Rockingham, WA, AUSTRALIA, 6169
Telephone (08) 9419 5300
Fax (08) 9439 1055
Emergency 1800 429 628
Email admin@mintech.com.au
Web Site http://www.mintechchemical.com.au/

Synonym(s) ALUM • ALUMINIUM SULPHATE HYDRATE • ALUMINIUM TRISULPHATE • MINTECH CHEMICAL ALUMINIUM SULPHATE POWDER

Use(s) FIRE EXTINGUISHING AGENT • FOOD ADDITIVE • WATER PURIFICATION • WATER TREATMENT

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

RISK PHRASES

R41 Risk of serious damage to eyes.
R42/43 May cause sensitisation by inhalation and skin contact.

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No. None Allocated **DG Class** None Allocated **Subsidiary Risk(s)** None Allocated
Packing Group None Allocated **Hazchem Code** None Allocated

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
ALUMINIUM SULPHATE	O12-S3.2Al	10043-01-3	100%

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 Type B (Inorganic and acid gas) respirator where an inhalation risk exists. 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).

Advice to Doctor Treat symptomatically.

First Aid Facilities Eye wash facilities and safety shower are recommended.

5. FIRE FIGHTING MEASURES

Flammability Non flammable. May evolve toxic gases (sulphur oxides) when heated to decomposition. May evolve flammable hydrogen gas in contact with some metals.

Fire and Explosion Treat as per requirements for Surrounding Fires: Evacuate area and contact emergency services. 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.

Extinguishing Prevent contamination of drains or waterways.

Hazchem Code None Allocated

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6. ACCIDENTAL RELEASE MEASURES

Spillage If spilt, collect and reuse where possible. Use personal protective equipment. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Prevent spill entering drains or waterways. CAUTION: Spill site may be slippery.

7. STORAGE AND HANDLING

Storage 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, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate fire protection and ventilation systems. Do not store above 760°C.

Handling 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	
Aluminium, soluble salts (as Al)	ASCC (AUS)	--	2 mg/m3	--	--

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 dust-proof goggles, rubber or PVC gloves and coveralls. If vapours are generated, wear a Full-face Type B (Inorganic and acid gas) respirator. At high dust levels, wear: a Class P1 (Particulate) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	WHITE OR CREAM COLOURED POWDER	Solubility (water)	SOLUBLE
Odour	ODOURLESS	Specific Gravity	1.61
pH	3.5 (1% solution)	% Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Boiling Point	NOT AVAILABLE	Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE		
Autoignition Temperature	NOT RELEVANT		

10. STABILITY AND REACTIVITY

Chemical Stability Stable under recommended conditions of storage.

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.

Hazardous Decomposition Products May evolve toxic gases (sulphur oxides) when heated to decomposition.

Hazardous Reactions Polymerization will not occur.

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11. TOXICOLOGICAL INFORMATION

Health Hazard Summary Slightly corrosive - irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. May hydrolyse (with addition of water) to sulphuric acid, a strong tissue irritant.

Eye Slightly corrosive - irritant. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and possible burns.

Inhalation Slightly corrosive - irritant. Over exposure may result in irritation of the nose and throat, with coughing.

Skin Irritant. Contact may result in irritation, redness, pain and rash.

Ingestion Slightly corrosive. Ingestion may result in ulceration and burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea.

Toxicity Data ALUMINIUM SULPHATE (10043-01-3)
 LD50 (Ingestion): 6207 mg/kg (mouse)
 LD50 (Intraperitoneal): 274 mg/kg (mouse)

12. ECOLOGICAL INFORMATION

Environment WATER: If released to water, aluminium salts will slowly be precipitated as aluminium hydroxide. May lower the pH of waterways with toxic effects to aquatic organisms. Not expected to bioaccumulate. SOIL: Plants may experience chronic toxicity at around 25 ppm.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Neutralise with lime, weak alkali or similar. For small amounts absorb with sand or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

Shipping Name	None Allocated				
UN No.	None Allocated	DG Class	None Allocated	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	None Allocated		

15. REGULATORY INFORMATION

Poison Schedule A poison schedule number has not been allocated to this product 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.
 EC No - European Community Number.
 IARC - International Agency for Research on Cancer.
 M - moles per litre, a unit of concentration.
 mg/m3 - Milligrams per cubic metre.
 NOS - Not Otherwise Specified.

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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.

Report Status

This Chem Alert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') 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. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This Chem Alert report does not constitute the manufacturer's original SDS 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.

While RMT has taken all due care to include accurate and up-to-date information in this Chem Alert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this Chem Alert report.

Prepared By

Risk Management Technologies
 5 Ventnor Ave, West Perth
 Western Australia 6005
 Phone: +61 8 9322 1711
 Fax: +61 8 9322 1794
 Email: info@rmt.com.au
 Web: www.rmt.com.au

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End of Report