



# SAFETY DATA SHEET

**PRODUCT NAME:** ALUMINIUM SULPHATE

Issue Date: April 23

## IDENTIFICATION

**Product Name:** Aluminium Sulphate  
**Other Names:** Aluminium sulphate solid; Aluminium sulfate; Aluminium sulphate; Sulphate of alumina; Sulfate of alumina; Alum; Alum kibbled; Kibbled alum; Ground alum; Granular alum; Solid alum.  
**Product Code:** CASULP25  
**Uses:** Water treatment, flocculent, pH control, paper and pulp, deodorising agent, fire retardant, foam boosting, dyes, mordant, printing fabric, catalyst.  
**Supplier:** HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton  
Phone: 079744971, Web: [www.hamchem.nz](http://www.hamchem.nz) Email: [info@hamchem.nz](mailto:info@hamchem.nz)

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

## HAZARD IDENTIFICATION



### GHS Classifications

Corrosive to Metals – Category 1  
Acute Oral Toxicity – Category 4  
Skin Irritation – Category 2  
Eye Irritation – Category 2  
Hazards to the Aquatic Environment – Chronic – Category 1

**Signal Word:** DANGER

### Hazard statements

H290 May be corrosive to metals  
H302 Harmful if swallowed  
H315 Causes skin irritation  
H319 Causes serious eye irritation  
H410 Very toxic to aquatic life with long lasting effects

### Prevention

P234 Keep only in original packaging  
P264 Wash hands thoroughly after handling  
P270 Do not eat, drink or smoke when using this product  
P280 Wear protective gloves  
P280 Wear eye/face protection  
P273 Avoid release to the environment

### Response

P390 Absorb spillage to prevent material damage  
P301+P312 IF SWALLOWED: Call a POISON CENTRE or Doctor if you feel unwell

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HamChem Ltd, 75 Ruffell Road, Hamilton, New Zealand. Phone: 07-974-4971 Email: [info@hamchem.nz](mailto:info@hamchem.nz) Web: [www.hamchem.nz](http://www.hamchem.nz)

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P330 Rinse mouth

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P319 Collect spillage

#### Storage

P501 Dispose of contents/container in accordance with local/regional/national regulations.

### COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Aluminium Sulphate	10043-01-3	> 99%

### FIRST AID MEASURES

**SWALLOWED:** Immediately give a glass of water and rinse mouth. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**EYE:** If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay.

**SKIN:** If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

**INHALED:** If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

**NOTES TO PHYSICIAN:** Treat symptomatically. Manifestation of aluminum toxicity include hypercalcemia, anemia, Vitamin D refractory osteodystrophy and a progressive encephalopathy (mixed dysarthria-apraxia of speech, asterixis, tremulousness, myoclonus, dementia, focal seizures). Bone pain, pathological fractures and proximal myopathy can occur. Symptoms usually develop insidiously over months to years (in chronic renal failure patients) unless dietary aluminum loads are excessive. Serum aluminum levels above 60 ug/ml indicate increased absorption. Potential toxicity occurs above 100 ug/ml and clinical symptoms are present when levels exceed 200 ug/ml. Deferoxamine has been used to treat dialysis encephalopathy and osteocalcin. CaNa<sub>2</sub>EDTA is less effective in chelating aluminum.

### SYMPTOMS AND EFFECTS, ACUTE AND DELAYED, FROM EXPOSURE

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:

**Ingestion:** Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation.

**Eye contact:** An eye irritant.

**Skin contact:** Contact with skin will result in irritation.

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**Inhalation:** Breathing in dust may result in coughing. Breathing in dust may result in respiratory irritation.

**Long Term Effects:** No information available for the product.

#### FIRE FIGHTING MEASURES

**Hazards from combustion products:** Non-combustible material. Decomposes on heating emitting toxic fumes including those of oxides of sulfur and oxides of aluminium.

**Precautions for fire fighters and special protective equipment:** 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: Extinguishing media appropriate to surrounding fire conditions.

#### ACCIDENTAL RELEASE MEASURES

**Emergency procedures:** Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contact. Avoid breathing in dust. Work up wind or increase ventilation. For large spills notify the Emergency Services.

**Methods and materials for containment and clean up:** Contain - prevent run off into drains and waterways. Sweep up but avoid generating dust and airborne material. Collect and seal in properly labeled containers or drums for disposal. Wash area down with excess water.

#### HANDLING & STORAGE

**Procedure for Handling:** Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.

**Suitable Container/s:** DO NOT use aluminium, galvanised or tin-plated containers. Polyethylene or polypropylene container. Check all containers are clearly labelled and free from leaks.

**Storage Requirements:** Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers.

#### EXPOSURE CONTROLS & PERSONAL PROTECTION

**Exposure standards:** Aluminium, as Al: Soluble salts WES-TWA 2 mg/m<sup>3</sup>

**Engineering controls:** Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

**Personal Protective Equipment:** Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If dust exists, wear dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

#### PHYSICAL & CHEMICAL PROPERTIES

<b>Physical state:</b>	Solid
<b>Colour:</b>	White to Light Tan
<b>Odour:</b>	Negligible
<b>Molecular Formula:</b>	Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> .16H <sub>2</sub> O
<b>Solubility in water:</b>	Miscible with water.
<b>Specific Gravity:</b>	2.71 @ 20°C

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**Flash Point (°C):** Not applicable.  
**Solubility in water (g/L):** 870 g/L  
**Decomposition Point (°C):** 770

STABILITY & REACTIVITY
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**Chemical stability:** Will absorb moisture from the atmosphere.

**Conditions to avoid:** Avoid exposure to moisture. Hygroscopic - absorbs moisture from the air.

**Incompatible materials:** Incompatible with alkali. Incompatible with oxidising agents.

**Hazardous decomposition products:** Oxides of sulfur. Oxides of aluminium.

**Hazardous reactions:** Hazardous polymerisation will not occur. May react with some metals in the presence of moisture.

TOXICOLOGICAL INFORMATION
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**Toxicity data:** Oral LD<sub>50</sub> (mice): 6207 mg/kg. Eyes: Standard Draize test (10mg/24Hr): Severe irritant (rabbit)

### POTENTIAL HEALTH EFFECTS

**Swallowed:** Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g., liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health).

**Eye:** When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.

**Skin:** Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.

**Inhaled:** Although inhalation is not thought to produce harmful effects (as classified under EC Directives), the material may still produce health damage, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally confined to doses producing mortality rather than those producing morbidity (disease, ill-health).

ECOLOGICAL INFORMATION
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**Ecotoxicity:** Avoid contaminating waterways.

DISPOSAL CONSIDERATIONS
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**Disposal methods:** Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

TRANSPORT INFORMATION
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Not classified as a Dangerous Good under NZS 5433 Transport of Dangerous Goods on Land.

REGULATORY INFORMATION
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**HSNO Classifications:** 8.1A, 6.1D, 6.3A, 6.4A, 9.1B

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**EPA Approval Number:** HSR002491 – Additive, Process Chemicals & Raw Materials (Corrosive) Group  
Standard 2020

**OTHER INFORMATION**

**End of SDS.**