

# Safety Data Sheet

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name:</b>	<b>ALUMINIUM SULFATE SOLID</b>
<b>Other name(s):</b>	Aluminium sulphate solid; Aluminium sulfate; Aluminium sulphate; Sulphate of alumina; Sulfate of alumina; Alum; Alum kibbled; Kibbled alum; Ground alum; Granular alum; Solid alum.
<b>Recommended use of the chemical and restrictions on use:</b>	Water treatment, flocculant, pH control, paper and pulp, deodorising agent, fire retardant, foam boosting, dyes, mordant, printing fabric, catalyst.
<b>Supplier:</b>	Saf Sulphur Factory for Agriculture and industrial
<b>Street Address:</b>	New Second Industrial Area P.O. Box 70482 Riyadh 11567 Saudi Arabia
<b>Telephone Number:</b>	+966 11 2428722
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## 2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

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

### Classification of the substance or mixture:

Skin Irritation - Category 2

Eye Damage - Category 1

**SIGNAL WORD:** DANGER



### Hazard Statement(s):

H315 Causes skin irritation.

H318 Causes serious eye damage.

### Precautionary Statement(s):

#### Prevention:

P264 Wash hands thoroughly after handling.

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

#### Response:

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

P321 Specific treatment (see First Aid Measures on Safety Data Sheet).

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

P362 Take off contaminated clothing and wash before reuse.

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.

**Product Name:** ALUMINIUM SULFATE SOLID

**Substance No:** 000031026001

**Issued:** 10/04/2013

**Version:** 4

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**Disposal:**

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

**Poisons Schedule (SUSMP):** None allocated.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Aluminium sulfate	10043-01-3	>99%	H315 H318

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

**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 hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

**Eye Contact:**

Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.

**Ingestion:**

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by the mouth to an unconscious patient. Seek medical advice.

**Indication of immediate medical attention and special treatment needed:**

Treat symptomatically. Can cause corneal burns.

## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:**

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

**Unsuitable Extinguishing Media:**

Water.

**Specific hazards arising from the substance or mixture:**

Non-combustible material. Decomposes on heating emitting toxic fumes including those of oxides of sulfur and oxides of aluminium .

**Special protective equipment and precautions for fire-fighters:**

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

## 6. ACCIDENTAL RELEASE MEASURES

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### Emergency procedures/Environmental precautions:

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.

### Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Contain - prevent run off into drains and waterways. Sweep up but avoid generating dust and airborne material. Collect and seal in properly labelled containers or drums for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling:

Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation.

### Conditions for safe storage, including any incompatibilities:

Store under cover in a dry place. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters:** No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Aluminium, soluble salts (as Al): 8hr TWA = 2 mg/m<sup>3</sup>

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

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.

### Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace 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.

### Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependant 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.

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





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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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Solid
<b>Colour:</b>	White
<b>Odour:</b>	Odourless
<b>Molecular Formula:</b>	Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> .14H <sub>2</sub> O
<b>Solubility:</b>	Soluble in water.
<b>Specific Gravity:</b>	1.70 @17°C
<b>Relative Vapour Density (air=1):</b>	Not available
<b>Vapour Pressure (20 °C):</b>	Not available
<b>Flash Point (°C):</b>	Not applicable
<b>Flammability Limits (%):</b>	Not applicable
<b>Autoignition Temperature (°C):</b>	Not applicable
<b>Solubility in water (g/L):</b>	870 @0°C
<b>Melting Point/Range (°C):</b>	Not available
<b>pH:</b>	Not available

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Hygroscopic: absorbs moisture or water from surrounding air.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerisation will not occur. May react with some metals in the presence of moisture. Reacts with moisture forming sulphuric acid.
<b>Conditions to avoid:</b>	Avoid exposure to moisture. Avoid dust generation.
<b>Incompatible materials:</b>	Incompatible with air, water, strong bases.
<b>Hazardous decomposition products:</b>	Oxides of sulfur. Oxides of aluminium.

## 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:

<b>Ingestion:</b>	Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation.
<b>Eye contact:</b>	A severe eye irritant. Contamination of eyes can result in permanent injury.
<b>Skin contact:</b>	Contact with skin will result in irritation.
<b>Inhalation:</b>	Breathing in dust may result in coughing. Breathing in dust may result in respiratory irritation.

**Acute toxicity:**  
Oral LD50 (mice): 6207 mg/kg

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**Serious eye damage/irritation:** Standard Draize Test (10mg/24hr): Severe irritant (rabbit).

**Chronic effects:** Prolonged or repeated exposure can cause numbing of the fingers.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Avoid contaminating waterways.

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods:**

Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 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; NON-DANGEROUS GOODS.

**Marine Transport**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

**Air Transport**

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

## 15. REGULATORY INFORMATION

**Classification:**

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

**Classification of the substance or mixture:**

Skin Irritation - Category 2

Eye Damage - Category 1

**Hazard Statement(s):**

H315 Causes skin irritation.

H318 Causes serious eye damage.

**Poisons Schedule (SUSMP):** None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2012.

This safety data sheet has been prepared by Orica Toxicology & SDS Services.

**Reason(s) for Issue:**

5 Yearly Revised Primary SDS

# Safety Data Sheet

This SDS 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 Saf Factory 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 Saf Sulphur Factory Representatives at the contact details on page 1.

Saf Factory responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.