# MATERIAL SAFETY DATA SHEET

## Aluminium Sulphate (Solid)

### 1. Identification

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| 1.1 Product Identifier | |
| Product Name | Aluminium Sulphate (Solid) |
| 1.2 Relevant Identified Uses | |
| Identified Uses | Water purification, sewage treatment, deodorizer and decolorizing agent in petroleum refinery processes, water proofing agent for concrete, sizing paper and pH control, clarifying agent for fats and oil. |
| 1.3 Manufacturer / Supplier Details | |
| Company Name | Cosmo Chemistry India Pvt. Ltd. |
| Address | Office No. 713, 7th Floor, Millennium Business Hub, Sarthana Jakatnaka, Varachha Main Road, Surat, Gujarat, India – 395006 |
| Email | info@cosmochemistryindia.com |
| Mobile Number | +91 79845 84838 |

### 2. Hazards Identification

*2.1 Classification of the substance or mixture*

This substance is not classified as dangerous according to European Union legislation.

*2.2 GHS Label Elements*

Labeling (Regulation (EC) No. 1272/2008)

Precautionary statements:

P262 – Do not get in eyes, on skin, or on clothing.

Labeling (67/548/EEC or 1999/45/EC)

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|---|---|
| S-phrase(s) | 24/25 – Avoid contact with skin and eyes |
| EC No. | 233-135-0 |

### 3. Composition / Information on Ingredients

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|---|---|
| Chemical Name | Aluminium Sulphate (Solid) |
| Synonyms | Alum, Aluminium Alum |

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|---|---|
| CAS No. | 7784-31-8 |
| Chemical Family | Inorganic Salt |
| Formula | $Al_2(SO_4)_3.14H_2O$ |
| Molecular Weight | 594 g/mol |

**4. First Aid Measures**

*4.1 Description of first aid measures*

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| After Inhalation | Fresh air. |
| After Skin Contact | Wash off with plenty of water. Remove contaminated clothing. |
| After Eye Contact | Rinse out with plenty of water with the eyelid held wide open. |
| After Swallowing | Make victim drink water (two glasses at most). Consult doctor if feeling unwell. |

*4.2 Indication of any immediate medical attention and special treatment needed*

No information available.

**5. Fire-Fighting Measures**

*5.1 Extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

*5.2 Special hazards arising from the substance or mixture*

Not combustible. Fire may cause evolution of sulphur oxides.

*5.3 Advice for fire fighters*

Special protective equipment: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information: Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**6. Accidental Release Measures**

*6.1 Personal precautions, protective equipment and emergency procedures*

Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

*6.2 Environmental precautions*

Do not empty into drains.

*6.3 Methods and materials for containment and cleaning up*

Cover drains. Collect, bind, and pump off spills. Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

**7. Handling and Storage**

*7.1 Precautions for safe handling*

Observe label precautions.

*7.2 Conditions for safe storage, including any incompatibilities*

Tightly closed. Dry. Storage temperature: no restrictions.

*7.3 Specific end uses*

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

**8. Exposure Controls / Personal Protection**

*8.1 Control parameters*

No specific occupational exposure limits established.

*8.2 Exposure controls*

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See Section 7.1.

Individual protection measures: Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substance handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures: Change contaminated clothing. Wash hands after working with substance.

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|---|---|
| Eye/Face Protection | Safety glasses |
| Hand Protection – Full Contact | Glove material: Nitrile rubber; Thickness: 0.11 mm; Break through time: > 480 min |
| Hand Protection – Splash Contact | Glove material: Nitrile rubber; Thickness: 0.11 mm; Break through time: > 480 min |
| Respiratory Protection | Required when dusts are generated. Recommended filter type: Filter P1 (acc. to DIN 3181) for solid particles of inert substances. |
| Environmental Exposure Controls | Do not empty to drains. |

Protective gloves used must comply with EC Directive 89/686/EEC and related standard EN374.

**9. Physical and Chemical Properties**

*9.1 Information on basic physical and chemical properties*

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| Appearance | White to brownish solid |
| Odour | Odourless |
| pH | > 3 (1% solution at 27°C) |
| Melting Point | 770°C (decomposes) |
| Boiling Point | N/A |

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|---|---|
| Vapour Density | N/A |
| Vapour Pressure | N/A |
| Evaporation Rate | N/A |
| Water Solubility | 87 g/100 cc at 27°C |

*9.2 Other data*

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|---|---|
| Ignition Temperature | N/A |
| Bulk Density | 920 kg/m³ (powder) |

**10. Stability and Reactivity**

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|---|---|
| 10.1 Chemical Stability | Releases water of crystallization when heated |
| 10.2 Possibility of Hazardous Reactions | None |
| 10.3 Conditions to Avoid | No information available |
| 10.4 Incompatible Materials | No information available |
| 10.5 Hazardous Decomposition Products | In event of fire, see Section 5 |
| 10.6 Reactivity | See Section 10.2 |

**11. Toxicological Information**

*11.1 Information on toxicological effects*

Acute oral toxicity – LD50 rat: Dose > 9000 mg/kg (RTECS)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract.

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| Skin Irritation (Rabbit) | No irritation (Method: OECD test guideline 404); slight irritation |
| Eye Irritation | Slight irritation |
| Specific Target Organ Toxicity – Single Exposure | Not classified as specific target organ toxicant, single exposure |
| Specific Target Organ Toxicity – Repeated Exposure | Not classified as specific target organ toxicant, repeated exposure |
| Aspiration Hazard | Based on available data, classification criteria are not met |

*11.2 Further information*

Special properties/effects: Astringent.

Further data: Handle in accordance with good industrial hygiene and safety practice.

**12. Ecological Information**

*12.1 Toxicity*

Toxicity to fish – LC50: Species – Pimephales promelas (fathead minnow); Dose – 36.1 mg/l; Exposure time – 96 h

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| 12.2 Persistence and Degradability | No information available |
| 12.3 Bioaccumulative Potential | No information available |
| 12.4 Mobility in Soil | No information available |
| 12.5 Result of PBT and vPvB Assessment | PBT / vPvB assessment not available as chemical safety assessment not required / not conducted |
| 12.6 Other Adverse Effects | Do not allow to run into surface waters, wastewater, or soil |

**13. Disposal Considerations**

*Waste treatment methods*

Cleaned up material may be a hazardous waste. Do NOT flush to surface water or sanitary sewer system. Waste must be disposed of in accordance with local environmental control regulations.

**14. Transport Information**

Not classified as dangerous in the meaning of transport regulations.

**15. Regulatory Information**

*15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture*

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|---|---|
| Major Accident Hazard Legislation (EU) | Directive 96/82/EC |
| National Legislation – Storage Class | 10 – 13, other liquids and solids |

*15.2 Chemical Safety Assessment*

For this product, a chemical safety assessment was not carried out.

**16. Other Information**

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

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