



PRIVI LIFE SCIENCES PVT.LTD.

MATERIAL SAFETY DATA SHEET

Page 1 of 5

PRODUCT NAME:

ALUMINIUM SULPHATE(NON-FERRIC)

SECTION 1: IDENTIFICATION

TRADE NAME: Aluminium Sulphate

OTHER NAMES: Alum; Alum Sulphate; Cake Alum

HAZCHEM: None Allocated

POISON SCHEDULE: None Allocated

USES: Tanning; Metallurgy; Pulp & Paper; Textiles; Water Treatment.

SECTION 2: PHYSICAL DESCRIPTION / PROPERTIES

Appearance, odour: off white fine powder , odourless

Melting Point: Decomposes at 775⁰C

Boiling Point: Not Available

Specific gravity (20⁰C): Not Available

Vapour Density (air=1): Not Available

Vapour Pressure (20⁰C): Not Available

Flash Point (Closed cup): Not Available

Flammability Limits (%): Not Available

pH (5 % solution): 2.8 to 3.3

Solubility in water: Soluble

Stability and reactivity: Stable under normal temperatures and pressures. On contact with moisture is readily hydrolysed to sulphuric acid. Corrosive to metals in the presence of moisture.

Molecular Formula: Al₂(SO₄)₃.14H₂O

Molecular Weight: 594

SECTION 3: INGREDIENTS

Chemical Name CAS Number Proportion

Aluminium Sulphate 10043-01-3 >99.0%

SECTION 4: HEALTH HAZARD INFORMATION

Inhalation: Dust or mist inhalation may irritate nose, throat, and lungs. Product hydrolyzes in lungs to form sulphuric acid.

Skin Contact / Absorption: May cause skin irritation, especially under repeated or prolonged contact, or when moisture is present. May cause pain and severe burns to skin and brownish or yellow stains. May cause redness, drying, and cracking of skin.

Eye Contact: May irritate or burn eyes. Possible corneal damage.

Ingestion: May irritate the gastrointestinal tract and cause nausea, vomiting, and purging. Acute exposure can cause loss of coordination, muscle spasms, and kidney effects.

Exposure Limits: OEL/TWA: 2mg/m³



PRIVI LIFE SCIENCES PVT.LTD.

MATERIAL SAFETY DATA SHEET

Page 2 of 5

PRODUCT NAME:

ALUMINIUM SULPHATE(NON-FERRIC)

SECTION 5: PRECAUTIONS FOR USE

EXPOSURE STANDARDS

No value assigned for this specific material by the National Occupational Health and Safety Commission

PERSONAL PROTECTION

Avoid skin and eye contact and inhalation of dust. Wear overalls, eye protection & gloves. Use a chemical safety goggles or face shield where dusting or splashing of solutions is possible. Use a dust mask or dust/mist respirator.

FLAMMABILITY

Not flammable

SECTION 6: FIRST AID MEASURES

Inhalation: Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.

Skin Contact / Absorption: Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.

Eye Contact: Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.

Ingestion: Do not induce vomiting. If vomiting occurs, lean victim forward to prevent breathing in vomits. Rinse mouth thoroughly with water. Give 1-2 glasses of water to the victim to drink. If vomiting occurs naturally, rinse the mouth out again and give another 1-2 glasses of water. Do not give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

Additional Information: Advice to physician: treat symptomatically.

SECTION 7: FIRE FIGHTING

Conditions of Flammability: Non-flammable

Means of Extinction: Product does not burn. Where fire is involved, use any fire fighting agent appropriate for surrounding material; use water spray to cool fire-exposed surfaces.

Flash Point: Not applicable

Auto-ignition Temperature: Not applicable

Upper Flammable Limit: Not applicable

Lower Flammable Limit: Not applicable

Hazardous Combustible Products: At above 760°C or heated in open flame, sulphur oxide (toxic, corrosive, oxidizer), sulphur trioxide (toxic, corrosive, flammable) and aluminum oxide is released. The remaining residue is caustic.

Special Fire Fighting Procedures: Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Explosion Hazards: None



PRIVI LIFE SCIENCES PVT.LTD.

MATERIAL SAFETY DATA SHEET

Page 3 of 5

PRODUCT NAME:

ALUMINIUM SULPHATE(NON-FERRIC)

SECTION 8: ACCIDENTAL RELEASE MEASURES

Leak / Spill: Wear appropriate personal protective equipment. Ventilate area. Stop or reduce leak if safe to do so. Spray residue with plenty of water. Prevent material from entering sewers. Collect liquid and/or residue and dispose of in accordance with applicable regulations.

Deactivating Materials: Soda ash, lime or limestone. Note that adequate ventilation is required if soda ash or limestone is used because of possible carbon dioxide gas formation.

SECTION 9: HANDLING AND STORAGE

Handling Procedures: Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Storage Requirements: Store in a cool, dry, well-ventilated place. Keep container tightly closed, and away from incompatible materials.

SECTION 10 : PERSONAL PROTECTION AND EXPOSURE CONTROLS

Protective Equipment

Eyes: Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

Respiratory: For dusty conditions wear a NIOSH/MSHA-approved dust or mist respirator. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Gloves: Impervious gloves of chemically resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Clothing: Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Footwear: Impervious boots of chemically resistant material should be worn.

Engineering Controls

Ventilation Requirements: Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other: Emergency shower and eyewash should be in close proximity.

SECTION 11: STABILITY AND REACTIVITY

Stability: Stable under normal conditions. Avoid temperatures above 760oC as this can yield toxic and corrosive gases.

Incompatibility: Avoid moist air and strong bases. Incompatible with alkalies and water reactive materials such as oleum, which causes exothermic reactions.



PRIVI LIFE SCIENCES PVT.LTD.

MATERIAL SAFETY DATA SHEET

Page 4 of 5

PRODUCT NAME:

ALUMINIUM SULPHATE(NON-FERRIC)

Hazardous Products of Decomposition. In contact with moist air and strong bases, this product hydrolyzes readily to form acidic salts. Contact with alkalies and water-reactive materials causes exothermic reactions. May corrode ferrous metals and mild steel in presence of moisture.

Polymerization: Will not occur.

SECTION 12: TOXICOLOGICAL INFORMATION

Irritancy: Moderate irritant

Sensitization: Not available

Chronic/Acute Effects: This product has been shown to cause liver, kidney, and nervous system toxicity when tested with laboratory animals. Repeated ingestion may cause phosphate deficiency, which can weaken bones.

Synergistic Materials: Not available

Animal Toxicity Data: LD50(oral, mouse): 6207mg/kg

LD50 (oral, rat): 1930mg/kg Human fatal dose recorded at 30 g.

Carcinogenicity: There are no known carcinogenic chemicals in this product.

Reproductive Toxicity: Not available

Teratogenicity: Not available

Mutagenicity: Not available

SECTION 13: ECOLOGICAL INFORMATION

Fish Toxicity: LC50(Goldfish, 96 hr): 100mg/L

LC50(Mosquito fish, 96 hr): 37mg/L

LC50(Largemouth bass, 96 hr): 250mg/L

EC50(Water Flea, 15 min): 136mg/L

Biodegradability: Not available

Environmental Effects: May be harmful to aquatic life. Toxicity is primarily associated with acidic pH.

SECTION 14: DISPOSAL CONSIDERATION

Waste Disposal: Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

SECTION 15: TRANSPORTATION 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



PRIVI LIFE SCIENCES PVT.LTD.

MATERIAL SAFETY DATA SHEET

Page 5 of 5

PRODUCT NAME:

ALUMINIUM SULPHATE(NON-FERRIC)

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.

SECTION 16: 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).

Created : 10/11/2011 12:50 PM

Last Updated : 12/12/2018 11:50 AM