



# NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.  
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

## Safety Data Sheet (MSDS)

(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards)

### Aluminum Sulfate (Hydrated)

#### SECTION 1: Identification

##### 1.1 Product Identifiers

- Product Name: Aluminum Sulfate (Hydrated)
- Product Number: AS-CAS10043013-202612
- Brand: SIGALD
- CAS-No.: 10043-01-3
- Synonyms: Alum; Aluminum Sulphate; Hydrated Aluminum Sulfate
- Chemical Family: Inorganic Sulfate Salt

##### 1.2 Details of the supplier of the safety data sheet

- Company : NEWAY SINOPHC TECH. LIMITED
- RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI)PILOT FREE TRADE ZONE.
- Telephone : +86-021-50350029
- Fax : +86-021-50350029

##### 1.3 Emergency telephone

Emergency Phone # : +86-021-50350029  
(CHEMTREC)

##### 1.4 Uses & Restrictions

- Identified Uses: Water treatment (flocculant); papermaking (sizing agent); textile dyeing (mordant); wastewater treatment; soil conditioner.
- Uses Advised Against: Pharmaceutical, food, or direct oral consumption.

#### SECTION 2: Hazards Identification

2.1 GHS Classification: Skin corrosion/irritation (Category 1B); Eye damage (Category 1); Corrosive to metals (Category 2)2.2 GHS Label Elements

- Hazard Pictogram: (Corrosion)
- Signal Word: DANGER
- Hazard Statements: H314 (Causes severe skin burns and eye damage); H290 (May corrode metals)
- Precautionary Statements: P260, P280, P301+P330+P331, P304+P340, P305+P351+P338

2.3 Physical/Chemical Hazards: Corrosive to metals (aluminum, zinc); dissolves in water with slight heat release; reacts with strong bases.2.4 Health Hazards: Severe skin/eye burns; inhalation of dust irritates nasal and respiratory tract mucosa; ingestion causes gastrointestinal discomfort.2.5 Environmental Hazards: Low toxicity to aquatic organisms; avoid direct discharge without neutralization.

#### SECTION 3: Composition/Information on Ingredients



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- Substance/Mixture: Pure Substance (Hydrated Salt) | Component | Content (w/w) | CAS-No. | Hazard Classification | |-----|-----|-----|-----| | Aluminum Sulfate Hydrate ( $\text{Al}_2(\text{SO}_4)_3 \cdot n\text{H}_2\text{O}$ ) |  $\geq 98.0\%$  | 10043-01-3 | Skin Corros. 1B; Eye Dam. 1; Metal Corros. 2 |

## SECTION 4: First Aid Measures

- Inhaled: Move to fresh air; administer oxygen if breathing is difficult; seek medical attention.
- Skin Contact: Remove contaminated clothing; rinse skin with plenty of running water for  $\geq 15$  minutes; consult a doctor.
- Eye Contact: Hold eyelids open; rinse with water/normal saline for  $\geq 15$  minutes; seek emergency medical help.
- Swallowed: Do not induce vomiting; rinse mouth with water; bring this MSDS to the doctor.

## SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Water spray, foam, carbon dioxide ( $\text{CO}_2$ ), dry powder.
- Unsuitable Media: Direct high-pressure water jet (may dissolve and spread corrosive solution).
- Special Hazards: Non-combustible; decomposes above  $250^\circ\text{C}$  releasing sulfur oxides ( $\text{SO}_x$ ).
- Firefighter Advice: Wear self-contained breathing apparatus (SCBA) and corrosion-resistant protective clothing; cool containers with water spray.

## SECTION 6: Accidental Release Measures

- Personal Precautions: Wear full PPE (chemical safety goggles, face shield, nitrile rubber gloves, acid-resistant clothing).
- Environmental Precautions: Prevent runoff into sewers, rivers, or groundwater; contain with sandbags.
- Cleanup: Small spill - sweep into sealed containers, neutralize with lime before disposal; large spill - dike and transfer to corrosion-resistant tanks.

## SECTION 7: Handling and Storage

- Handling: Operate in well-ventilated area; avoid dust inhalation; use local exhaust ventilation; avoid contact with skin/eyes; do not mix with strong bases.
- Storage: Cool, dry, well-ventilated warehouse ( $\leq 30^\circ\text{C}$ ); keep container tightly closed; store separately from strong bases, oxidizing agents, and metals.
- Shelf Life: 24 months (unopened, specified conditions).

## SECTION 8: Exposure Controls/Personal Protection

- Engineering Controls: Install local exhaust ventilation; use acid-resistant equipment.
- Personal Protective Equipment (PPE):
  - Eye/Face Protection: Chemical safety goggles and face shield (compliant with EN 166 or NIOSH standards).
  - Skin Protection: Nitrile rubber gloves (minimum thickness 0.15 mm) and acid-resistant protective clothing.
  - Respiratory Protection: Dust mask (FFP1) when handling powder; half-mask respirator with acid gas cartridges if mist is generated.



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- Hygiene Measures: Wash hands thoroughly with soap and water after work; do not eat/drink/smoke in the workplace.

### SECTION 9: Physical and Chemical Properties

- Physical State: Solid (crystalline powder/flakes); Color: White; Odor: Odorless
- pH (1% Solution, 25°C): 2.5-4.0; Melting Point: 86.5°C (loses 结晶水); Solubility: 31.2 g/100 mL (20°C, water)
- Density (25°C): 1.62 g/cm<sup>3</sup>; Particle Size: 80-200 mesh; Decomposition Temperature: >250°C
- Vapor Pressure (25°C): <0.1 hPa; Partition Coefficient (n-octanol/water): No data available

### SECTION 10: Stability and Reactivity

- Stability: Stable under normal storage and handling conditions.
- Incompatibilities: Strong bases (e.g., NaOH, KOH), oxidizing agents, active metals (e.g., Al, Zn).
- Hazardous Decomposition Products: SO<sub>x</sub>, aluminum oxides (above 250°C).

### SECTION 11: Toxicological Information

- Acute Toxicity: Oral (Rat, LD<sub>50</sub>): 620 mg/kg (anhydrous); Dermal (Rabbit, LD<sub>50</sub>): >2000 mg/kg
- Skin Corrosion/Irritation: Severe skin burns (GHS Category 1B).
- Eye Damage/Irritation: Severe eye damage (GHS Category 1).
- Respiratory Irritation: May irritate respiratory tract if dust is inhaled.

### SECTION 12: Ecological Information

- Fish (Zebrafish, LC<sub>50</sub>): >200 mg/L (96-hour exposure)
- Daphnia (EC<sub>50</sub>): >150 mg/L (48-hour exposure)
- Biodegradability: Non-biodegradable but dissociates into non-toxic ions in water.

### SECTION 13: Disposal Considerations

- Product Waste: Neutralize with alkaline substances (lime, sodium carbonate) to pH 6-9 before disposal; dispose via licensed hazardous waste treatment facilities.
- Packaging Waste: Rinse thoroughly with water to remove residual product; dispose as hazardous waste or recycle if permitted.

### SECTION 14: Transport Information

- UN Number: ADR/RID: UN 3260; IMDG: UN 3260; IATA-DGR: UN 3260
- UN Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum Sulfate, aqueous solution) / Solid, corrosive, acidic, inorganic, n.o.s. (powder)
- Transport Class: 8; Packaging Group: III; Environmental Hazards: No
- Special Precautions: Transport in acid-resistant containers; avoid collision, leakage, and exposure to sunlight/rain.

### SECTION 15: Regulatory Information

- National Regulations (China): Complies with Hazardous Chemical Safety Management Regulation; meets GB/T 31060-2014 standard.



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- International Regulations: GHS Rev.9 (Corrosion 1B); REACH (EU, not in SVHC List); TSCA (US, listed).

### **SECTION 16: Other Information**

- Revision Date: 01 DEC 2025
- Disclaimer: Based on current scientific knowledge; supplier not liable for damage caused by improper use.

