

POTASSIUM ALUM

TECHNICAL PRODUCT BROCHURE

High Purity Aluminum Salt
for Water Treatment and Industrial Applications



Purify
Water



Reliable
Quality



Sustainable
Solutions

KolinSC Product Data Sheet

Food Grade & Industrial Grade Potassium Alum Premium Crystalline Powder & Block Crystal Series

KolinSC supplies high-quality potassium alum (aluminum potassium sulfate dodecahydrate) with stable quality, flexible specifications and professional export service. Our potassium alum is available in block crystals and crystalline powder forms for food, water treatment, industrial and specialty applications.

1. Product Identification

Item	Specification
Product Name	Potassium Alum
Chemical Name	Aluminum Potassium Sulfate Dodecahydrate
Molecular Formula	$KAl(SO_4)_2 \cdot 12H_2O$
Molecular Weight	474.39
CAS No.	7784-24-9
Appearance	Colorless transparent crystals / white crystalline powder
Crystal Forms	Block crystals and crystalline powder
Powder Particle Size	30-50 mesh
Block Crystal Size	Approx. 5-10 cm diameter

2. Product Characteristics & Advantages

- High purity and low impurity content with stable chemical performance.
- Excellent crystal structure, good solubility and reliable application performance.
- Available in premium block crystal and powder forms to meet different customer requirements.
- Block crystals provide larger crystal appearance, lower dust generation and convenient handling.
- Powder crystals (30-50 mesh) provide faster dissolution and easy dosing.
- Support COA, MSDS, customized packaging and OEM requirements.

3. Physical & Chemical Properties

Property	Value
Appearance	Colorless transparent or white crystals
Crystal Type	Octahedral crystal structure
Density	Approx. 1.757 g/cm ³
Solubility	Soluble in water
Water Solution	Acidic
Thermal Behavior	Loses crystal water when heated

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Technical Specifications

4. Food Grade Standard

Standard: GB 1886.229-2016 Food Additive Potassium Aluminum Sulfate

Item	Specification
Aluminum potassium sulfate [KAl(SO ₄) ₂ ·12H ₂ O] (dry basis)	≥99.5%
Lead (Pb)	≤5.0 mg/kg
Arsenic (As)	≤2.0 mg/kg
Selenium (Se)	≤30.0 mg/kg
Fluorine (F)	≤30.0 mg/kg

5. Industrial Grade Standard

Standard: HG/T 2565-2007 Industrial Potassium Aluminum Sulfate

Item	Superior Grade	First Grade	Qualified Grade
Aluminum potassium sulfate (dry basis) %	≥99.2	≥98.6	≥97.6
Iron (Fe) % ≤	0.01	0.01	0.05
Heavy metals (as Pb) % ≤	0.002	0.002	0.005
Arsenic (As) % ≤	0.0002	0.0005	0.001
Water-insoluble matter % ≤	0.2	0.4	0.6
Moisture % ≤	1.0	1.5	2.0

Applications & Product Forms

6. Main Applications

Water Treatment: Acts as a traditional coagulant. Hydrolyzes to form aluminum hydroxide colloids which adsorb suspended impurities and improve water clarity.

Food Processing: Used as food additive applications such as leavening agent and stabilizer in permitted processing fields.

Paper Industry: Used as sizing agent to improve paper strength and water resistance.

Chemical Industry: Used in mordants, tanning agents, coating clarifiers and aluminum salt production.

Cosmetic Applications: Used as raw material for deodorant stone and antiperspirant products.

Pharmaceutical Applications: Traditional applications include astringent and hemostatic uses.

7. Product Form Advantages

Form	Advantages
Block Crystal (5-10 cm)	Premium appearance, low dust, convenient storage and transportation, suitable for customers requiring crystal form.
Crystalline Powder (30-50 mesh)	Fast dissolution, easy mixing, suitable for precise industrial dosing and processing.

Packaging, Storage & Supply Service

8. Packaging Specification

Package Type	Specification
Standard Bag	25 kg PP bag / kraft paper bag with moisture-proof inner liner
Export Package	50 kg customized packaging available
Bulk Package	1000 kg jumbo bag available
Customization	OEM and neutral export packaging supported

9. Storage & Transportation

- Store in a cool, dry and ventilated environment.
- Protect from moisture and avoid contact with strong acids and alkalis.
- Transport as general chemical product according to applicable regulations.

10. KolinSC Supply Capability

- Professional export service from quotation, production and quality inspection to delivery.
- Provide COA, MSDS, samples and technical documents.
- Support trial orders and long-term cooperation.

KolinSC

Industrial Water Treatment Chemicals Supplier

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KolinSC is committed to providing reliable chemical supply chain solutions and building long-term global partnerships.

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