



## Dry Alum PRODUCT PROFILE

### CHARACTERISTICS

Dry aluminum sulfate (dry alum) is pale green to white in color and is available in powder and granular forms. It can be dissolved in water to produce a solution.

### TYPICAL PROPERTIES

Formula	$Al_2(SO_4)_3 \cdot 14H_2O$ (approximate for commercial material)
Molecular Weight of Dry Alum	594
pH, 1% Dry Alum Basis Solution	3.5 (approx.)
Bulk Density (Ground Form)	1009 - 1137 kg/m <sup>3</sup> (63 - 71 lbs./ft <sup>3</sup> )
Bulk Density (Powdered Form)	609 - 721 kg/m <sup>3</sup> (38 - 45 lbs./ft <sup>3</sup> )
Solubility*	See Figure 1

\*If making up batch solutions from dry alum, it is recommended to target 10 - 25% by weight as dry alum equivalent.

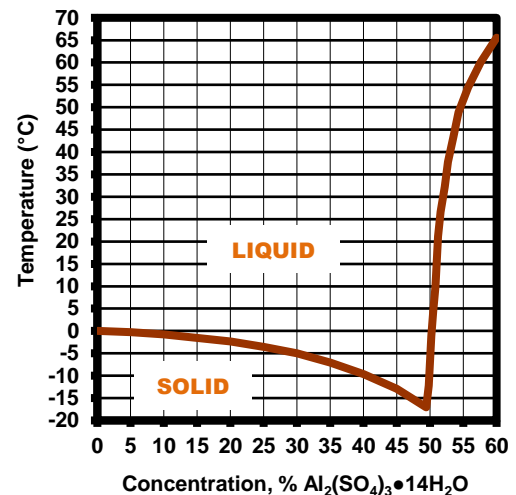


Figure 1: Solubility of Commercial Dry Aluminum Sulfate in Water

### TYPICAL ANALYSES

Grade	Standard	Low Iron	Iron-Free	FCC, Food Grade
Total Soluble Al <sub>2</sub> O <sub>3</sub> , %	17.0 min.	17.0 min.	17.0 min.	15.3 min.
Free Al <sub>2</sub> O <sub>3</sub> , %	0.15 - 0.60	0.15 - 0.60	0.15 - 0.60	0.15 - 0.60
Total Soluble Iron, (as Fe <sub>2</sub> O <sub>3</sub> ), %	0.7 max.	0.05 max.	0.02 max.	0.02 max.
Water Insolubles, %	0.5 max.	0.5 max.	0.5 max.	0.5 max.

### PRODUCT MARKETS AND USES

#### Water and Wastewater Treatment

- BOD Removal
- Chemically Enhanced Primary Treatment
- Coagulation / Flocculation Agent
- Color Reduction
- Disinfection Byproduct Control
- Oily Waste and Heavy Metal Separation
- Stormwater Treatment
- Struvite Control
- Suspended Solids Removal
- Total Organic Carbon Removal / Reduction
- Water Clarification

#### Papermaking

- Paper Sizing
- Retention Aid / Drainage Aid

#### Environmental

- Algae Control
- Lagoon Treatment
- Lake Treatment and Restoration
- Phosphorus Control / Inactivation

# Dry Alum

## PRODUCT PROFILE

### GRADES AND FORMS

**Standard Grade:** *Ground and Powdered*

**Low Iron Grade:** *Granular*

**Iron-Free Grade:** *Ground and Powdered*

**FCC, Food Grade:** *Ground and Powdered*

### SHIPPING LOCATIONS

- Prince George, British Columbia, Canada
- East St. Louis, Illinois USA

### SHIPPING REGULATIONS

Not regulated for transport

### PRODUCT SAFETY INFORMATION

As with any chemical, aluminum sulfate requires care in handling.

Anyone procuring, using or disposing of these products or their containers must be familiar with the appropriate safety and handling precautions. Such information may be found in the Safety Data Sheets (SDS) for these products or you may contact Chemtrade at 416-496-5856.

In the event of an emergency with these products, call the 24-hour Emergency Number:

*US and Canada Only:*

*(CHEMTREC) (800) 424-9300*

### CORPORATE HEADQUARTERS

Chemtrade Logistics, Inc.  
155 Gordon Baker Road, Suite 300  
Toronto, Ontario M2H 3N5 Canada



#### CUSTOMER SERVICE

**(844) 204 9675**

#### TECHNICAL SERVICE

**(800) 255 7589 or (315) 478 2323**

#### WEBSITE

**[www.chemtradelogistics.com](http://www.chemtradelogistics.com)**

Chemtrade complies with the standards for American Water Works Association Standard ANSI/AWWA B403-16 for Aluminum Sulfate.

NSF certifies that the plants listed comply with the requirements of NSF/ANSI/CAN Standard 60: Drinking Water Treatment Chemicals - Health Effects.

Revision Date: September 10, 2020

All information, statements, data, advice and/or recommendations, including, without limitation, those relating to storage, loading/unloading, piping and transportation (collectively referred to herein as "information") are believed to be accurate and reliable. However, no representation or warranty, express or implied, is made as to its completeness, accuracy, fitness for a particular purpose or any other matter, including, without limitation, that the practice or application of any such information is free of patent infringement or other intellectual property misappropriation. Chemtrade Logistics Inc. and its affiliates (collectively, "Chemtrade") are not engaged in the business of providing technical, operational, engineering or safety information for a fee, and, therefore, any such information provided herein has been furnished as an accommodation and without charge. All information provided herein is intended for use by persons having requisite knowledge, skill and experience in the chemical industry. Chemtrade shall not be responsible or liable for the use, application or implementation of the information provided herein, and all such information is to be used at the risk, and in the sole judgment and discretion, of such persons, their employees, advisors and agents.