



Dry Alum PRODUCT PROFILE

CHARACTERISTICS

Dry aluminum sulfate (dry alum) is pale green to white in color and is available in powdered and ground 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)	63 - 71 lbs/ft ³
Bulk Density (Powdered Form)	38 - 45 lbs/ft ³
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.

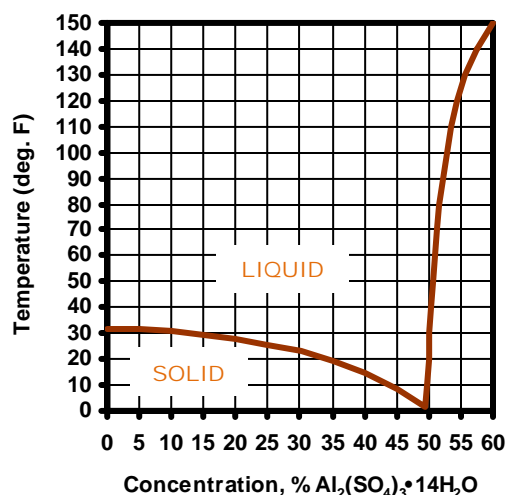


Figure 1: Solubility of Commercial Dry Aluminum Sulfate in Water

TYPICAL ANALYSES

Grade	Standard	Low Iron	Iron-Free	FCC, Food Grade
Total Soluble Al_2O_3 , %	17.0 min.	17.0 min.	17.0 min.	17.0 min.
Free Al_2O_3 , %	0.15 - 0.60	0.15 - 0.60	0.15 - 0.60	0.15 - 0.60
Total Soluble Iron, (as Fe_2O_3), %	0.7 max.	0.05 max.	0.009 max.	0.009 max.
Water Insolubles, %	0.5 max.	0.2 max.	0.1 max.	0.1 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: *Ground*

Iron-Free Grade: *Ground and Powdered*

FCC, Food Grade: *Ground and Powdered*

SHIPPING LOCATIONS

- Bay Point, CA
- East St. Louis, IL

SHIPPING REGULATIONS

Bulk Shipments

Hazard class: 9

Label: *Miscellaneous*

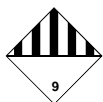
ID Number: *UN3077*

Proper Shipping Name:

*Environmentally Hazardous Substance, Solid,
N.O.S. (Contains Aluminum Sulfate)*

Packing Group: *III*

RQ: *5000 lbs. (CASRN Formula Basis)*



*Non bulk shipments are not regulated, less than
RQ equivalent weight per package.*

PRODUCT SAFETY INFORMATION

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

Anyone responsible for the procurement, use or disposal of this product should familiarize himself and those handling the product with the appropriate safety and handling precautions. This information is available in the Material Safety Data Sheet, which may be obtained by contacting our Customer Service group (see box on right).

In the event of an emergency with these products, call the 24 hour Emergency Number:
US Only: (CHEMTREC) (800) 424-9300
Canada Only: (CANUTEC) (613) 996-6666

CORPORATE HEADQUARTERS

General Chemical
90 East Halsey Road
Parsippany, NJ 07054

IN CANADA

Call Customer Service at
(800) 631-8050 (English)
(866) 543-3896 (French)



CUSTOMER SERVICE

(800) 631-8050

TECHNICAL SERVICE

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

WEBSITE

www.GeneralChemical.com

General Chemical complies with the standards for American Water Works Association Standard ANSI/AWWA B403-09 for Aluminum Sulfate.

Underwriter Laboratories, Inc.® (UL) certifies that General Chemical's Water Chemicals Group is in compliance with ISO 9001:2000.

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