

White Ammonium Sulphate

TECHNICAL PRODUCT DATA SHEET & SPECIFICATIONS

High Purity Grade



Fine Crystalline Powder

General Chemical Overview

CHEMICAL FORMULA
(NH₄)₂SO₄

MOLAR MASS
132.14 g/mol

SOLUBILITY IN WATER
76.4 g/100 mL (20 °C)

CAS REGISTRY NO.
7783-20-2

PHYSICAL FORM
White Powder / Crystal

EINECS NO.
231-984-1

≥ 99.0%

Purity / Assay

21.0%

Ammoniacal Nitrogen (N)

24.0%

Water Soluble Sulphur (S)

TECHNICAL SPECIFICATIONS & QUALITY PARAMETERS

PARAMETER / TEST ITEM	STANDARD SPECIFICATION	TEST METHOD / RESULT
Appearance	Fine White Crystalline Powder	Visual Inspection
Purity / Main Content	≥ 99.0% Min	Titration Method
Nitrogen (N) Content	≥ 20.5% - 21.0%	Kjeldahl Method
Sulphur (S) Content	≥ 23.5% - 24.0%	Gravimetric Analysis
Free Acid (as H ₂ SO ₄)	≤ 0.05% Max	Neutralization Titration
Moisture / Water Content	≤ 0.20% Max	Oven Drying Method
pH Value (5% Aqueous Solution)	5.0 - 6.0	pH Meter @ 25°C
Heavy Metals (as Pb)	≤ 0.001% (10 ppm) Max	AAS / ICP Spectrum

Key Functional Advantages

- High Bio-availability:** Fully water-soluble inorganic salt providing immediate nutrient absorption.
- Soil pH Conditioner:** Excellent nitrogen source for alkaline soils, lowering soil pH effectively.
- Low Hygroscopicity:** Superior chemical stability with minimal caking during bulk storage.
- High Purity Grade:** Free from heavy organic impurities, suitable for sensitive industrial processes.

Primary Industry Applications

- Agriculture:** Premium specialty fertilizer for direct application and crop nutrition blending.
- Water Treatment:** Used in chloramination disinfection systems as an ammonia source.
- Textile & Dyeing:** Acting as a dye bath acidifier and flame-retardant agent in textile finishings.
- Chemical Processing:** Key precursor in pharmaceutical fermentation and biochemistry protocols.

