

Technical Data Sheet

Diammonium Phosphate

(Technical Grade)

Chemical Name	Diammonium Phosphate	CAS Number	7783-28-0
Synonyms	Diammonium Hydrogen Phosphate	EINECS Number	231-987-8
Chemical Formula	$(\text{NH}_4)_2\text{HPO}_4$	NPK	21-53-0
MW, g/mol	132.06		

SUMMARY: Diammonium phosphate (DAP) is a water soluble, white crystalline salt with the chemical formula $(\text{NH}_4)_2\text{HPO}_4$. DAP is a ingredient in several agricultural fertilizers and fire retardant products.

SPECIFICATIONS

ITEM	UNIT	STANDARD	TYPICAL
Purity	%, min	99.00	99.75
Appearance	—	white crystalline	white crystalline
Total Nitrogen [N]	%, min	21.00	21.10
Phosphorous [P] Phosphorous	%, min	23.14	23.40
Pentoxide $[\text{P}_2\text{O}_5]$	%, min	53.00	53.58
Arsenic [As]	%, max	0.0003	0.0010
Lead [Pb]	%, max	0.002	0.0010
Cadmium [Cd]	%, max	0.0001	0.0010
Flourine [F]	%, max	0.001	0.010
Mercury [Hg]	%, max	0.0001	≤ 0.0001

MAIN USES

Diammonium phosphate is an entirely water-soluble, crystalline product. It is used as raw material to produce water-soluble NPK fertilizers for protected ground and open fields (in greenhouses, hydroponics, irrigation systems) and as a raw material for the preparation of liquid complex fertilizers. It has an NPK value of 21-53-0. Nitrogen is necessary for the growth and development of plant biomass and takes part in the photosynthesis process. Phosphorus is essential for the development of the root system of plants. MAP is used as a feed supplement for animals.

In addition, it is used in industry. DAP is the perfect flame retardant. Due to its physical and chemical properties, it prevents ignition and burning. Due to the near-complete absence of insoluble impurities, the complete dissolution of DAP is ensured, and absorption into impregnated materials such as fabrics, plywood, or wood is improved. Do not mix DAP with fertilizers containing calcium and magnesium.

STANDARD PACKAGING

25 kg or 1,000 kg woven bags with PE liner.

WAREHOUSING AND STORAGE LIFE

Diammonium Phosphate (DAP) is stored and transported in 25 kg, 1,000 kg, or 1,100 kg woven polypropylene bags with an inner liner.

SPECIAL ADVISE FOR SECURITY

This product must be used and handled following the usual precautions for all chemical substances consulting the safety data sheet.