



MONOAMMONIUM PHOSPHATE (MAP 12-61-0)

Technical Data Sheet (TDS)

Monoammonium Phosphate (MAP 12-61-0) is a highly concentrated, fully water-soluble phosphate fertilizer widely used in fertigation, hydroponic systems, greenhouse cultivation, and agricultural nutrient formulations. The product provides a high phosphorus content for root development and early-stage plant growth while supplying nitrogen in ammonium form for efficient nutrient uptake.

1. Product Identification

Parameter	Description
Product Name	Monoammonium Phosphate
Commercial Name	MAP 12-61-0
Chemical Name	Ammonium Dihydrogen Phosphate
Molecular Formula	$NH_4H_2PO_4$
CAS Number	7722-76-1
EC Number	231-764-5
Appearance	White Crystalline Powder
Odor	Odorless
Solubility	100% Water Soluble
Product Grade	Agricultural / Fertigation Grade
Application	Fertilizer / Industrial Use

2. Typical Chemical Specification

Item	Specification	Typical Result
Purity	99.0% Min	99.90%
Total Nitrogen (N)	12.0% Min	12.03%
Available Phosphate (P_2O_5)	61.0% Min	61.22%
Moisture	0.20% Max	0.07%
Water Insoluble Matter	0.10% Max	0.02%
pH Value (1% Solution)	4.0 – 5.0	4.14
Density	Approx. 1.8 g/cm ³	–
Particle Form	Fine Crystalline Powder	–



3. Heavy Metals Analysis

Parameter	Maximum Limit	Typical Result
Arsenic (As)	20 ppm Max	10 ppm
Chromium (Cr)	10 ppm Max	2 ppm
Cadmium (Cd)	10 ppm Max	<1 ppm
Lead (Pb)	10 ppm Max	<1 ppm
Mercury (Hg)	5 ppm Max	<1 ppm
Selenium (Se)	5 ppm Max	<1 ppm

4. Physical Properties

Property	Value
Color	White
Physical State	Solid Powder
Hygroscopicity	Low
Flammability	Non-Flammable
Explosion Hazard	None
Water Solubility	Completely Soluble
Corrosiveness	Non-Corrosive under normal conditions

5. Product Features

- High phosphorus concentration for strong root development
- Fully and rapidly soluble in water
- Suitable for drip irrigation and hydroponic systems
- Low impurity and low heavy metal content
- Excellent compatibility with most fertilizer formulations
- Fast nutrient absorption by plants
- Stable during storage and transportation
- Suitable for agricultural and industrial fertilizer applications

6. Applications

Sector	Application
Agriculture	Fertigation
Agriculture	Hydroponic Nutrient Solutions
Agriculture	Drip Irrigation Systems
Agriculture	Greenhouse Cultivation
Agriculture	Root Development Programs
Fertilizer Industry	NPK Production
Fertilizer Industry	Water Soluble Fertilizer Blending



7. Packaging

Packaging Type	Net Weight
PP/PE Laminated Bag	25 KG
Jumbo Bag	Available Upon Request

8. Storage & Handling

- Store in a cool, dry, and ventilated area
- Keep away from moisture and direct sunlight
- Keep packaging tightly closed after use
- Avoid contact with strong alkaline materials
- Use proper protective equipment during handling

9. Compliance & Certification

- REACH Compliant
- Suitable for International Export Markets
- Produced under industrial quality control standards

10. Shelf Life

Condition	Shelf Life
Original Sealed Packaging	24 Months

11. Disclaimer

The information contained in this Technical Data Sheet is based on laboratory analysis and technical experience. Values may vary slightly between production batches. This document is provided for technical reference purposes only and does not constitute a product specification guarantee.