

Technical Data Sheet

Monoammonium Phosphate

(Technical Grade)

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|-------------------------|--|----------------------|-----------|
| Chemical Name | Monoammonium Phosphate | CAS Number | 7722-76-1 |
| Synonyms | Ammonium dihydrogen phosphate | EINECS Number | 231-764-5 |
| Chemical Formula | (NH ₄)H ₂ PO ₄ | NPK | 12-61-0 |
| MW, g/mol | 115.03 | | |

SUMMARY: Monoammonium phosphate is a water soluble, white crystalline salt with the chemical formula (NH₄)H₂PO₄. MAP is a ingredient in several agricultural fertilizers and fire retardant products.

SPECIFICATIONS

| ITEM | UNIT | STANDARD | TYPICAL |
|--|----------|-------------------|-------------------|
| Purity | %, min | 99.0 | 99.15 |
| Appearance | — | white crystalline | white crystalline |
| Total Nitrogen [N] | %, min | 12.00 | 12.06 |
| Phosphorous [P] | %, min | 26.64 | 26.69 |
| Phosphorous Pentoxide [P ₂ O ₅] | %, min | 61.00 | 61.12 |
| Moisture | %, max | 0.20 | 0.08 |
| Arsenic [As] | ppm, max | 50.0 | 18.0 |
| Heavy Metals, as Lead [Pb] | %, max | 0.005 | — |
| Fluorine [F] | %, max | 0.01 | — |

MAIN USES

Monoammonium 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 12-61-0. 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. Monoammonium phosphate 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 monoammonium phosphate is ensured, and absorption into impregnated materials such as fabrics, plywood, or wood is improved. Do not mix MAP with fertilizers containing calcium and magnesium.

STANDARD PACKAGING

25 kg, 1,000 kg, 1,100 kg, or 1,200 kg woven bags with PE liner.

WAREHOUSING AND STORAGE LIFE

Monoammonium Phosphate (MAP) is stored and transported in 25 kg, 1,000 kg, 1,100 kg, or 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.