

Monoammonium Phosphate

Food Grade

Monoammonium phosphate (MAP) food grade is a crystalline product without anti-caking agents. A technical grade product is also available. MAP is also available with silica based anti-caking agent (MAP AC SI) or as a milled product with tricalcium phosphate based anti-caking agent (MAP AC T2). Further information about these products is available on the respective product data sheets.

Regulatory Compliance

The product conforms to the requirements of the latest version of FCC. MAP is currently not listed under EU Commission Regulation 231/2012 for Food Additives. MAP is listed as a Food Additive in the WHO Codex Alimentarius.

All ingredients are of mineral origin and, to the best of our knowledge, are free from allergenic substances in accordance with EU Regulation 1169/2011. The product is also GMO free as well as free from artificial colours, flavours and preservatives.

Synonyms	FCC:	Ammonium Phosphate, monobasic	INS 342 (i)
	Other:	Ammonium dihydrogen phosphate Monoammonium dihydrogen orthophosphate MAP	
CAS No.:		7722-76-1	
EINECS No.:		231-764-5	
Chemical Formula:		NH ₄ H ₂ PO ₄	
Molecular Weight:		115 g/mol	
Manufacturing Site:		Omnisal GmbH (Lutherstadt Wittenberg, Germany)	

Product Specifications

Parameter	Unit	Specification	Typical data
Appearance		white, crystalline	conform
P ₂ O ₅	% w/w	61.3 min	61.6
Assay (as NH ₄ H ₂ PO ₄)	% w/w	98.0 – 102.2	99.8
pH (1% aq. solution)		4.3 – 4.7	4.5
Water Insoluble Matter	% w/w	0.2 max	< 0.05
Fluoride (F)	mg/kg	10 max	< 10
Arsenic (As)	mg/kg	1 max	< 1
Lead (Pb)	mg/kg	1 max	< 1
Mercury (Hg)	mg/kg	1 max	< 0.1
Cadmium (Cd)	mg/kg	1 max	< 0.1

Produced by:
Omnisal GmbH
Dessauer Str. 128
06886 Lutherstadt Wittenberg
Germany
www.omnival.de

Typical Physical Product Properties

Parameter	Unit	Typical data
Nitrogen (as N)	% w/w	> 12.0
Chloride (as Cl)	mg/kg	< 20
Sulphate (as SO ₄ ²⁻)	mg/kg	< 150
Heavy Metals (as Pb)	mg/kg	< 10
Bulk Density (loose)	g/l	approx. 1050
Solubility	Approximate solubility data is given:	
Temperature	°C	0 20 40 60 80
g / 100 g water		22 37 56 82 117
% w/w in saturated solution		18 27 36 45 54

Applications

Monoammonium phosphate has many uses in food applications as well as technical industries where a higher degree of purity is required.

Examples include:

- Buffering agent for solutions with reduced sodium and potassium contents in pharmaceutical preparations and manufacture.
- Culture nutrient in pharmaceutical and fermentation products.
- Buffer, dough conditioner, processing aid and yeast nutrient in food production.
- Yeast nutrient in wine preparation. MAP is listed in the Codex Oenologique for this purpose.
- Nitrogen and phosphorus source in fertilizers.
- Acidity regulator as well as nitrogen and phosphorous source in animal feeds e.g. for cattle.
- Nitrogen source in flame retardants.

Use of this product in food applications also may be subject to other legislation depending on the country of use. Please refer to legislation applicable to your country and products.

Packaging

- 25 kg multi-ply paper sacks

Packaging is compliant with regulations for materials intended to come into contact with food.

Storage

Storage and transport under ambient temperature and dry conditions.

The use of warehouse racking or single stacking of pallets is recommended as MAP has a tendency for caking which is increased by compaction.

Shelf life: 2 years from date of manufacture, assuming correct storage conditions and undamaged packaging.

Health and Safety Information

Under Regulation (EC) 1272/2008 (CLP) this product is not classified.

Produced by:
Omnisal GmbH
Dessauer Str. 128
06886 Lutherstadt Wittenberg
Germany
www.omnival.de