Technical Data Sheet

Monopotassium Phosphate

(Technical Grade)

Chemical Name	Monopotassium Phosphate	**CAS Number**	7778-77-0
Synonyms	MKP; Potassium Dihydrogen Phosphate;	**EINECS Number**	231-913-4
	Potassium Phosphate monobasic;	**Chemical Formula**	KH_2PO_4
	Phosphoric acid, potassium salt (1:1)	**MW, g/mol**	136.09

SUMMARY: Monopotassium phosphate (MKP) is the inorganic, free flowing, crystalline powder. It is often used as a fertilizer, food additive, and buffering agent. The salt often co-crystallizes with the dipotassium salt as well as with phosphoric acid. Single crystals are paraelectric at room temperature. At temperatures below −238 °F, they become ferroelectric. MKP is one of the most widely used straight fertilizers in tailor-made crop recommendations. Its high phosphorus and potassium content makes it very flexible to be used in hydroponics, easily meeting the plant's needs for these nutrients.

SPECIFICATIONS

ITEM	UNIT	STANDARD	TYPICAL
Purity	% min.	99.0	99.1
Appearance	—	white crystalline powder	white crystalline powder
Phosphorous [P]	% min.	22.60	22.70
Phosphorous Pentoxide [P_2O_5]	% min.	52.00	52.10
Potassium [K]	% min.	28.60	28.61
Potassium Oxide [K_2O]	% min.	34.00	34.02
pH of 1% Solution	—	4.3 – 4.7	4.6
Moisture	% max.	0.10	0.10
Arsenic [As]	ppm, max	50.0	40.0
Chloride [Cl]	% max.	0.025	—
Water Insoluble material	% max.	0.01	0.01

MAIN USES

Monopotassium phosphate is a high-purity PK fertilizer (0-52-34). IDue to its very low sodium content, MKP is recommended for use in any type of crop and in any fertigation system (drip irrigation, hydroponics, sprinkles, pivots) or as a foliar spray. MKP is 100% soluble in water and is quickly absorbed by plants, which allows to use it for root application through irrigation systems. It is especially recommended to use in hydroponics, as it virtually does not contain chlorine or insolubles.

MKP can be mixed with all water-soluble fertilizers, except for calcium fertilizers and concentrated magnesium solutions. In hydroponic systems, it should normally be added to the B tank along with the sulfates and trace elements. MKP has a buffering effect, which will help stabilize the pH of the solution at around 4.5.

STANDARD PACKAGING

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

WAREHOUSING AND STORAGE LIFE

Monopotassium Phosphate i(MKP) s stored and transported in 25 kg or 1000 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.