



>>Entry Name: Potassium phosphate (K(H₂PO₄))

Synonym(s): Potassium dihydrogenphosphate. Monopotassium phosphate, 9CI, 8CI. Potassium phosphate monobasic, USAN

CAS Registry Number: 7778-77-0

Related CAS Registry Numbers(s): 13761-79-0

Extra CAS Registry Numbers(s): 16068-46-5

K(H₂PO₄)

Molecular Formula: H₂KO₄P

Molecular Weight: 136.085

Accurate Mass: 135.932779

Percentage Composition: H 1.48%; K 28.73%; O 47.03%; P 22.76%

Source/Synthesis: Synth. from H₃PO₄ + KOH or K₂CO₃ aq. Manuf. from phosphate ores using traditional extraction methods

Use/Importance: Pharmaceutic aid (buffering agent). Used to treat hypophosphataemia. Commercially available. Fertiliser. Single cryst. used in generation of laser light

Physical Description: White cryst. solid

Melting Point: Mp 253°. Mp 272°

Solubility: Sol. H₂O (23 g per 100 cm³ at 20°, 34 g per 100 cm³ at 40°)

Other Data: Exhibits electrooptical and piezooptical props. at high temps.; also thermoluminescence coincident with paraelectric-ferroelectric transition at –150°

Aldrich: 22130-9

Fluka: 60220

Sigma: P4191

References:

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