FT-684481

POTASSIUM PHOSPHATE

Product Information

Chemical name : **Potassium Phosphate**, ***Monobasic, Anhydrous*** *(>99%)*
Syn.: potassium phosphate monobasic, Monopotassium phosphate, Potassium dihydrogen phosphate

Cat. Number : **684481,** 500g **684482**, 1Kg, **684483**, 2.5Kg

CAS number: 7778-77-0 **EC number**: 231-913-4

Structure : KH_2PO_4

Molecular Weight : 136.09

Typical Data: Purity > 99.0%

Chloride	< 0.001%	Nitrogen compounds	< 0.001%
Heavy Metals (as Pb)	< 0.001%	pH (5%, water, 25°C)	4.1-4.5
Insolubles	< 0.01%	Sodium	< 0.005%
Iron	< 0.002%	Sulfate	< 0.003%
Loss on drying	< 0.2%		

Storage: Room temperature (Z)

Safety:

Hazard Statements: H315 / H319 / H335
Precautionary Statements: P280 / P302+P352 / P304+P340 / P305+P351+P338
Hazard Code: gs07 UN Number: NONE

Applications: Suitable for most biochemistry and biotechnology applications (purification, analysis).

Technical information

●Le Potassium Phosphate is a salt that gives in solution
the dihydrogénophosphate of monopotassic potassium ($H2PO_4^-$, K^+),
the hydrogénophosphate of dipotassic potassium (HPO_4^{2-}, $2K^+$),
the phosphate of tripotassic potassium (PO_4^{3-}, $3K^+$).

Phosphates have a very high buffering capacity and are highly soluble in water. They are widely used, despite a number of potential disadvantages:
* Phosphates inhibit many enzymatic reactions and procedures that are the foundation of molecular cloning, including cleavage of DNA by many restriction enzymes, ligation of DNA, and bacterial transformation.
* Because phosphates precipitate in ethanol, it is not possible to precipitate DNA and RNA from buffers that contain significant quantities of phosphate ions.
* Phosphates sequester divalent cations such as Ca2+ and Mg2+

Gomori buffers, the most commonly used phosphate buffers, consist of a mixture of monobasic dihydrogen phosphate and dibasic monohydrogen phosphate. By varying the amount of each salt, a range of buffers can be prepared that buffer well between pH 5.8 and pH 8.0 (table below).

●Prepare mother solutions:
0.5L of 1M K_2HPO_4 at 174.18g mol -1 = 87.09g
0.5L of 1M KH_2 PO_4 at 136.09g mol -1 = 68.045g

●preparation of 0.1 M potassium phosphate buffer at 25°C

pH	Volume of 1M ^{4} (ml)	Volume of 1M ^{4} (ml)
5.8	8.5	91.5
6.0	13.2	86.8
6.2	19.2	80.8
6.4	27.8	72.2
6.6	49.7	50.3
7.0	61.5	38.5
7.2	71.7	28.3
7.4	80.2	19.8
7.6	86.6	13.4
7.8	90.8	9.2
8.0	94.0	6.0

Ordering information

Catalog size quantities and prices may be found at http://www.interchim.com.
Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : Uptima / Interchim; Hotline : +33(0)4 70 03 73 06