

TECHNICAL BULLETIN



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DIPOTASSIUM HYDROGENPHOSPHATE FERTILISER, BUFFER

MATERIAL & FUNCTION

Dipotassium hydrogenphosphate (K_2HPO_4) – other names are: Dipotassium Phosphate, Potassium monohydrogen phosphate, Phosphoric acid dipotassium salt, Potassium phosphate dibasic, Dipotassium hydrogen orthophosphate.

As a food additive, Dipotassium hydrogenphosphate is on the FDA's Generally recognized as safe, or GRAS, list of substances.

PROPERTIES

CAS number: 7758-11-4

Molecular formula: K_2HPO_4

Molar mass: 174.2 g/mol

Appearance white powder

Stability: deliquescent

Odour: odourless

Density: 2.44 g/cm³

Melting point: >465 °C decomp.

Solubility in water 167 g/100 mL (20 °C)

Solubility very soluble in alcohol

Related compounds: Monopotassium phosphate, Tripotassium phosphate

Formula	pH, 1% Solution	Solubility, g/100 g of Water	Temp C
K_2HPO_4	9.1	201	25
		258	50
		335	75

APPLICATIONS

It is a highly water-soluble salt which is often used as a fertilizer, food additive and buffering agent.

It is used in non-dairy creamers to prevent coagulation. In fertilisers, it is a source of phosphorus and potassium. It is sometimes sold as a food additive to help with headaches.

DIRECTION FOR USE

As a Buffer: For food applications, a food grade should be used. Generally a selected pH buffer range, other than pH 9.1, will require the addition of other buffer reagents (acid, alkali, or other salts).

Note 1. Disodium hydrogenphosphate will give almost the same pH properties (molar basis).

2. Potassium dihydrogen phosphate has a 1% solution pH of 5.0

CAUTION

Avoid contact with skin and eyes and avoid breathing dust.

PACKAGING

25 kg bags

IMPORTANT NOTICE TO CUSTOMER

*Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product which is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages resulting from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. **ALWAYS TEST FIRST.***