



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material 3186

Anion Standard Solution

Phosphate

This Standard Reference Material (SRM) is intended for use in anion ion chromatography, or any other analytical technique that requires aqueous standard solutions for calibration or as control samples. SRM 3186 is a single component solution prepared gravimetrically to contain 1000 μg phosphate per gram of solution. The certified value is based on gravimetric procedures, i.e., weight per weight composition of a high-purity potassium dihydrogen phosphate salt dissolved in 0.06 microsiemens/cm (18 megohm) water. The density of the solution was measured to be 0.998 g/mL at 25 °C.

Constituent	Concentration, ($\mu\text{g/g}$)	Source (Purity, %)
Phosphate	1000 \pm 4	KH_2PO_4^* (99.947)

*SRM 186Id Potassium Dihydrogen Phosphate

The uncertainty associated with the certified value is approximated by summing the estimated errors due to the gravimetric preparation of the SRM, transpiration of the solution through the container wall within one year of bottling, and purity of the potassium dihydrogen phosphate.

Stability and Storage

This certificate is valid for six months from the shipping date provided the solutions are kept tightly capped and stored under normal conditions in an area known to be free of acid fumes and sulfur dioxide. NIST will monitor the stability of this SRM and will notify purchasers of any changes that invalidate this certification.

SRM 3186 was prepared and analyzed by K.W. Pratt and A.P. Emery of the NIST Inorganic Analytical Research Division under the technical leadership of W.F. Koch.

Registration

Please return the attached registration sheet immediately upon receipt of this SRM in order that we may inform the actual user of this SRM of any changes in the certified value or appropriate use of SRM 3186.

The technical and support aspects involved in the preparation, certification, and issuance of this Standard Reference Material were coordinated through the Standard Reference Materials Program by J.C. Colbert.

January 28, 1991
Gaithersburg, MD 20899

William P. Reed, Acting Chief
Standard Reference Materials Program