

Positive Electrophoretic Mobility (+μE) Standard

Art. ID	NIST-1980
Unit	40 mL
Deliverydetails	No Dangerous Good /not restricted

Description

This Standard Reference Material (SRM) is intended for use in the evaluation of equipment, and the validation of methodology used to measure electrophoretic mobility. A unit of NIST-1980 consists of a single 60 cm³ polyethylene bottle containing 40 cm³ of suspension, which is to be diluted prior to analysis. The suspension consists of 500 mg/L goethite (alpha-FeOOH) suspension saturated with 100 μmol/g phosphate in a 5 × 10⁻² mol/L sodium perchlorate electrolyte solution at a pH of 2.5. The goethite powder consists of acicular particles with an average dimension of 60 nm × 20 nm as determined from electron microscopy and is consistent with previously reported data. The characteristics used for the selection of goethite as a standard were its long-term stability, ease of mobility control from positive to negative polarity by adjusting the phosphate concentration or pH, reproducibility of mobility measurements, and the narrow particle size distribution in the suspension. Additionally, this material was the subject of a previous interlaboratory analysis during which goethite was suggested as a potential electrophoresis standard. /// Sample value(s) - please ask for current certificate.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
	Positive electrophoretic mobility		2,53 ± 0,12	μm*cm/V*s		