



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Institute of Standards and Technology**  
Gaithersburg, Maryland 20899-0001

DATE: 31 May 2019

**Product Identifier**

**SRM Number:** 1980

**SRM Name:** Positive Electrophoretic Mobility (+ $\mu_E$ ) Standard

Under the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1200, this Standard Reference Material (SRM) is NOT classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified. There are no hazard pictograms, hazard statements or signal word associated with it. Safety Data Sheet information is not required. This document may be used in conjunction with your hazard communication program.

**Description:** This SRM is intended for use in the evaluation of equipment, and the validation of methodology used to measure electrophoretic mobility. A unit of SRM 1980 consists of a single 60 cm<sup>3</sup> polyethylene bottle containing 40 cm<sup>3</sup> of suspension, which is to be diluted prior to analysis. The suspension consists of 500 mg/L goethite ( $\alpha$ -FeOOH) saturated with 100  $\mu$ mol/g phosphate in a  $5 \times 10^{-2}$  mol/L sodium perchlorate electrolyte solution at a pH of 2.5.

**Disposal:** SRM 1980 and derived solutions should be disposed of in accordance with local, state, and federal regulations.

**Transport Information:** This material is not regulated by the U.S. Department of Transportation (DOT) and/or International Air Transport Association (IATA).

**Disclaimer:** This document was prepared carefully, using current references. Users of this SRM should ensure that this document and the corresponding Certificate of Analysis in their possession are current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail [srmmsds@nist.gov](mailto:srmmsds@nist.gov); or via the Internet at <https://www.nist.gov/srm>.