

Polyvinylpyrrolidone Coated Silver Nanoparticles (Nominal Diameter 75 nm)

Art. ID	NIST-8017
Unit	5 vials
Deliverydetails	No Dangerous Good /not restricted

Description

This Reference Material (RM) is intended primarily for use as a benchmark and investigative tool for the evaluation of potential environmental, health, and safety risks that may be associated with manufactured nanomaterials during their product life-cycle. A unit of NIST-RM-8017 consists of five serum vials containing a lyophilized polyvinylpyrrolidone (PVP)-coated silver (Ag) nanoparticle cake. Each vacuum sealed vial contains nominally 2 mg Ag and 20 mg of PVP (molar mass approximately 40 kDa). The RM must be reconstituted with 2 mL of deionized water before use, the reconstituted Ag concentration is nominally 1 mg/mL. /// Sample value(s) - please ask for current certificate.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
Reference Value, dry, deposited on substrate	Particle size		70,1 ± 6,0	nm	Atomic Force Microscopy (AFM)	
Reference Value, dry, deposited on substrate	Particle size		74,6 ± 3,8	nm	Transmission Electron Microscopy (TEM)	
Reference Value, liquid suspension	Particle size		67,9 ± 0,8	nm	Ultra-Small Angle X-ray Scattering (USAXS)	
Reference Value, liquid suspension, diluted	Particle size		105,6 ± 4,6	nm	Dynamic Light Scattering (DLS)	