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## Product Specification

Product Name:  
ZrO<sub>2</sub> nanoparticles - 5 nm (core), methacrylate functionalized, 50 wt. % in ethyl acetate, medium surface coverage capping materials

Product Number: 915750



TEST	Specification
Appearance (Color)	Colorless
Appearance (Form)	Liquid
ICP Major Analysis	Confirmed
Confirms Zirconium Component	
Residue on Evaporation	49.0 - 55.0 %
Particle Size	7.0 - 10.0 nm
(mean hydrodynamic diameter by volume in ETA, DLS)	
Assay	≤ 30 nm
Dv(99.99) by volume in ETA (nm)	
Inorganic Content	40.0 - 44.0
(wt%)	
Optical Density	≤ 0.8
@ 400nm (from UV-Vis, 1 cm path length)	
Optical Density	≤ 1.6
@ 350nm (from UV-Vis, 1 cm path length)	
Note	Note
Typical property values, not routinely tested:	
Diameter of the Nanocrystal Inorganic Core (as determined by Transmission Electron Microscope): 4-6 nm (TEM)	
Recommended Retest Period	-----
1 Year	

Specification: PRD.0.ZQ5.10000105347

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

