Sphere Scientific Corporation

MonoTi Microsphere

Description

Microsphere Composition:	Titanium Dioxide
Crystal structure :	Amorphous
Porosity:	Nonporous
Form :	Aqueous dispersion
Approximate Concentration (W/V):	5% solids
Sodium Azide Concentration :	50PPM
Surfactant :	<0.1% (W/V) or None

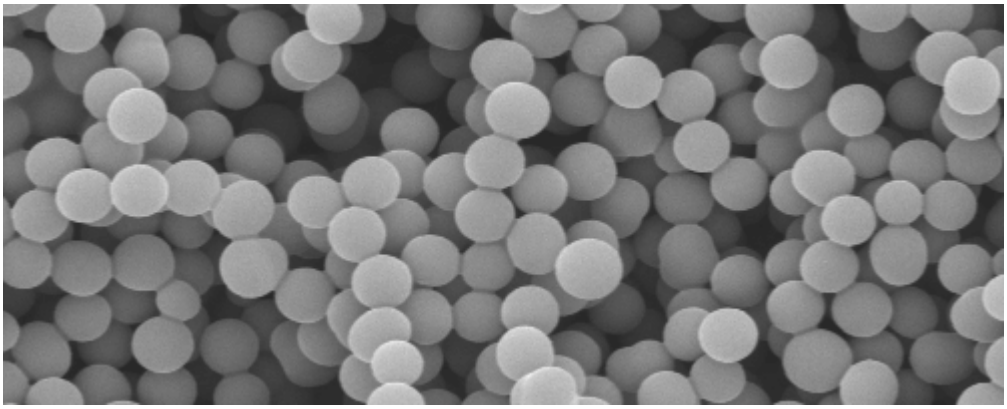
Physical Data

Nominal Diameter :	1μm, 2μm
Density :	3.9 g/cm3

Physical and Chemical Properties

Hydrophilic surface, Positive (PH≤4.5) and negative (PH≥5); Stable in organic solvents, insoluble in weak acid and bases.

Example of SEM Image



1um Titania Microsphere

Storage and Handling

Aqueous dispersions of titania microspheres have excellent stability. Storage at room temperature is possible without bacterial growth. Microspheres can be washed with organic solvent, air dried and autoclaved.

Dispersions can be frozen.

Features and Application

1. Used as model systems in medicine, biochemistry, colloid chemistry, and aerosol research;
2. Unique refractive index and density;
3. Ease of handling;
4. Optical Tweezer Manipulation;
5. High mechanical stability;
6. Extremely selective for phosphorylated peptide extraction and/or enrichment from proteolytic digests;
7. Packing of HPLC (high performance liquid chromatography),UPLC (ultra pressure liquid chromatography) and Capillary columns.

7.1 More selective than IMAC for most applications, Broad PH range;
7.2 Separation of alkaline compounds;
7.3 Separation of pharmaceutical compounds,pesticides and herbicides;
7.4 Separation of diastereoisomers,positional isomers and substitutional isomers.