

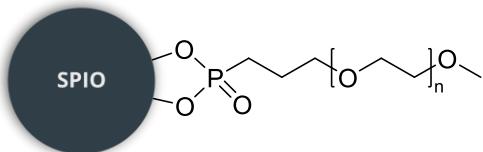
Product data sheet

Name of the product:

SPIO-PEG1000-OMe, suspended in deionised water, 5 mg/mL or powder.

Product number: SP1P112

Product representation:



Guarantee: 1 year from manufacture, under the specified storage conditions.

Storage: 4 – 25°C. DO NOT FREEZE.

Usage: Ensure the nanoparticles are well dispersed in the medium prior to use.

In **suspension**, shake vigorously before use, bath sonication is strongly recommended.

In **powder**, to use in suspension, bath sonication is needed.

Product specifications:

Property	Characterization technique	Unit	Specifications	
			Min.	Max.
Appearance (Black or brown powder)	<i>Visual Inspection</i>	-	-	-
Magnetic	<i>Test with magnet</i>	-	-	-
Presence of the molecule at the surface	<i>Infrared analysis (IR)</i>	-	-	-
Loading of -PEG₁₀₀₀-OMe at the surface of the nanoparticles	<i>Thermogravimetric analysis (TGA)</i>	Nb*/nm ²	0.2	2
Isoelectric point (pH)	<i>Zetametry</i>	pH	4.5	6
Zeta potential at physiological pH (pH =7,4)	<i>Zetametry</i>	mV	-10	-30
Phase of SPIO (Magnetite)	<i>X-ray Diffraction (XRD)</i>	-	-	-
Crystallite size	<i>X-ray Diffraction (XRD)</i>	nm	10	20
Mesh parameter	<i>X-ray Diffraction (XRD)</i>	Å	8.370	8.390
Oxygen stoichiometry	<i>X-ray Diffraction (XRD)</i>	-	0	0.111
Fe²⁺/Fe³⁺ratio	<i>X-ray Diffraction (XRD)</i>	-	0	50
Mean particle size	<i>Transmission Electron Microscopy (TEM)</i>	nm	10	20

*Nb = number of molecules