

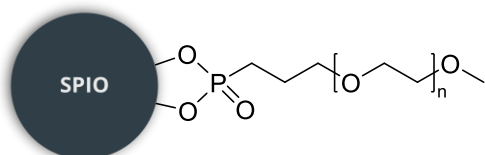
Product data sheet

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 | Unit | Specifications | |
|---|---------------------|----------------|-------|
| | | Min. | Max. |
| Characterization technique | | | |
| Appearance (Back 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 | Nb*/nm ² | | |
| <i>Thermogravimetric analysis (TGA)</i> | Nb*/nm ² | 0.2 | 2 |
| Isoelectric point (pH) | pH | 4.5 | 6 |
| <i>Zetametry</i> | | | |
| Zeta potential at physiological pH (pH =7,4) | mV | -10 | -30 |
| <i>Zetametry</i> | | | |
| Phase of SPIO (Magnetite) | - | - | - |
| <i>X-ray Diffraction (XRD)</i> | | | |
| Crystallite size | nm | 10 | 20 |
| <i>X-ray Diffraction (XRD)</i> | | | |
| Mesh parameter | Å | 8.370 | 8.390 |
| <i>X-ray Diffraction (XRD)</i> | | | |
| Oxygen stoichiometry | - | 0 | 0.111 |
| <i>X-ray Diffraction (XRD)</i> | | | |
| Fe²⁺/Fe³⁺ratio | - | 0 | 50 |
| <i>X-ray Diffraction (XRD)</i> | | | |
| Mean particle size | nm | 10 | 20 |
| <i>Transmission Electron Microscopy (TEM)</i> | | | |

*Nb = number of molecules