

Product data sheet

Name of the product: SPIO-NH₂,
suspended in deionised water, 5 g/L.

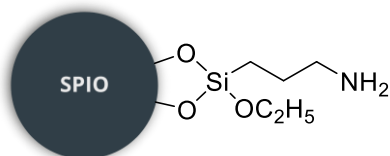
Guarantee: 1 year from manufacture, under the
specified storage conditions.

Product number: SP1NH12

Storage: 4 – 25°C. DO NOT FREEZE.

Product representation :

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



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

Product specifications:

Property <i>Characterization technique</i>	Unit	Specifications	
		Min.	Max.
Appearance (Black or brown) <i>Visual Inspection</i>	-	-	-
Magnetic <i>Test with magnet</i>	-	-	-
Presence of the molecule at the surface <i>Infrared analysis (IR)</i>	-	-	-
Loading of -NH₂ at the surface of the nanoparticles	Nb*/nm ²		
<i>Thermogravimetric analysis (TGA)</i>	Nb*/nm ²	3	6
Isoelectric point (pH) <i>Zetametry</i>	pH	8	11
Zeta potential at physiological pH (pH =7,4) <i>Zetametry</i>	mV	30	40
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