

Product data sheet

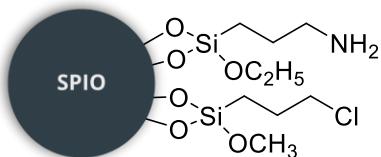
Name of the product: SPIO-Cl/NH₂, suspended in deionised water/DMSO, 5 mg/mL or powder.

Guarantee: 6 months in suspension or 1 year in powder from manufacture, under the specified storage conditions.

Product number: SP1CN12

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.

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

Product specifications:

Property	Unit	Specifications	
		Min.	Max.
Appearance (Black or brown powder)	-	-	-
<i>Visual Inspection</i>			
Magnetic	-	-	-
<i>Test with magnet</i>			
Presence of the molecules at the surface	-	-	-
<i>Infrared analysis (IR)</i>			
Loading of -Cl and -NH₂ at the surface of the nanoparticles	Nb*/nm ²		
<i>X-ray fluorescence (XF)</i>	Cl/nm ²	4	5
<i>X-ray fluorescence (XF) (calculated)</i>	NH ₂ /nm ²	3	4
<i>Elemental analysis (EA)</i>	NH ₂ /nm ²	3	4
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