

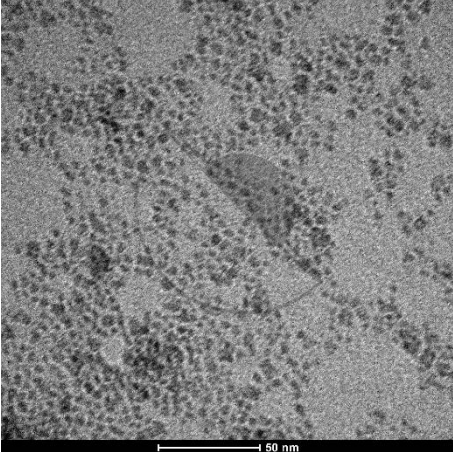
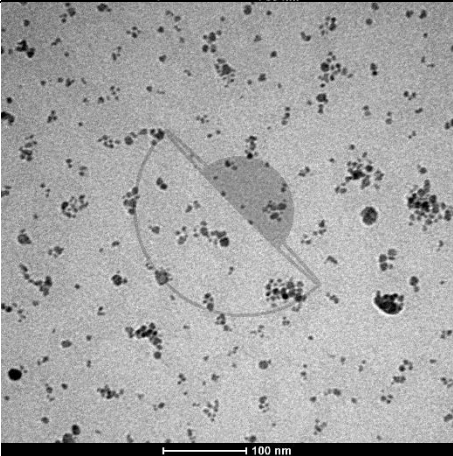
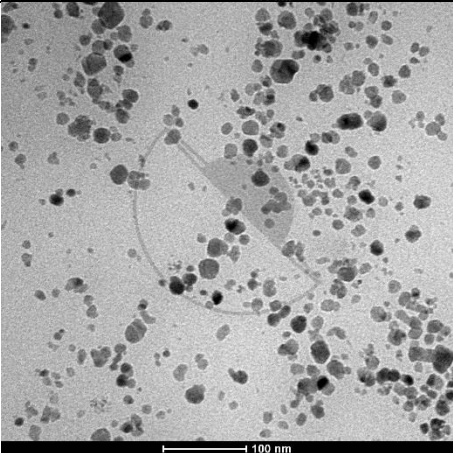


Technical Data Sheet

Product Name	Iron oxide(II,III), magnetic nanoparticles solution
Synonym	Magnetic iron oxide nanocrystals Magnetite Superparamagnetic iron oxide nanoparticles
CAS Number	1317-61-9
Formula	Fe ₃ O ₄
Formula Weight	231.53
Appearance (Form, Color)	Powder, dark brown to black Colloidal, dark brown to black depending on concentration
Concentration	1% to 20% w/w in water or selected organic solvents For concentration > 20% w/w please contact Technical Support
Particle size	3.6 ± 1.2 nm 5.4 ± 1.2 nm 7.8 ± 2.9 nm 70 ± 20 nm
Coating	Particles can be provided bare or coated [polymers, carboxylic acids, amines, carbon, others] For specific requirements please contact Technical Support
Pricing	Visit our Online Store or Request a quotation
Bulk Pricing	For orders > 10kg please contact sales@particularmaterials.com

	Drums	Pails	Cans	Bottles	Vials
Available Packaging	✓	✓	✓	✓	✓



TEM		
3.6 ± 1.2 nm		
5.4 ± 1.2 nm		
7.8 ± 2.9 nm		



**PARTICULAR
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QUALITY CONTROL

When stored as recommended, most nanoparticles are stable for 6 months to > 1 year. Be sure to visually inspect your materials before each use. If there are any visible particulates floating in the solution, if the color of the solution has changed, or if the color intensity has decreased, the nanoparticles may have aggregated. These materials should be analyzed via UV-Visible spectroscopy, DLS, or TEM for quality verification.

HANDLING NANOPARTICLE COLLOIDS

Shake prior to use. During storage the nanoparticles may settle to the bottom. Resuspend the settled nanoparticles by vigorously shaking the bottle until the solution is homogenous, typically require 30 seconds of mixing.

HANDLING DRY NANOPOWDERS

Storage away from excess moisture and humidity is recommended until the materials are ready for use or redispersion.

For a suggestion of solvents and methods to redisperse dry powders, contact our **Technical Support** we.are@particularmaterials.com.

QUESTIONS & SUPPORT

If you have any questions, please don't hesitate to contact us by email at we.are@particularmaterials.com or by phone at +39 049 490 6797 or directly contact your sales representative.