



Technical Data Sheet

PRODUCT INFORMATION

Product Name	α -Iron(III) oxide
Synonym	Hematite
CAS Number	1309-37-1
Formula	Fe_2O_3
Molecular Weight	159.69 g/mol

PRODUCT PROPERTIES

Purity (XRF analysis)	> 99.5%
Particle size (XRD analysis)	40 nm (crystallites size)

Supply form 1

Appearance (form)	Powder
Appearance (color)	Rust red

Supply form 2

Appearance (form)	Dispersion
Appearance (color)	Rust red
Solvent	Water
Concentration	1% to 15% wt

For concentration > 15% wt or for dispersions in different solvents please contact [Technical Support](#)

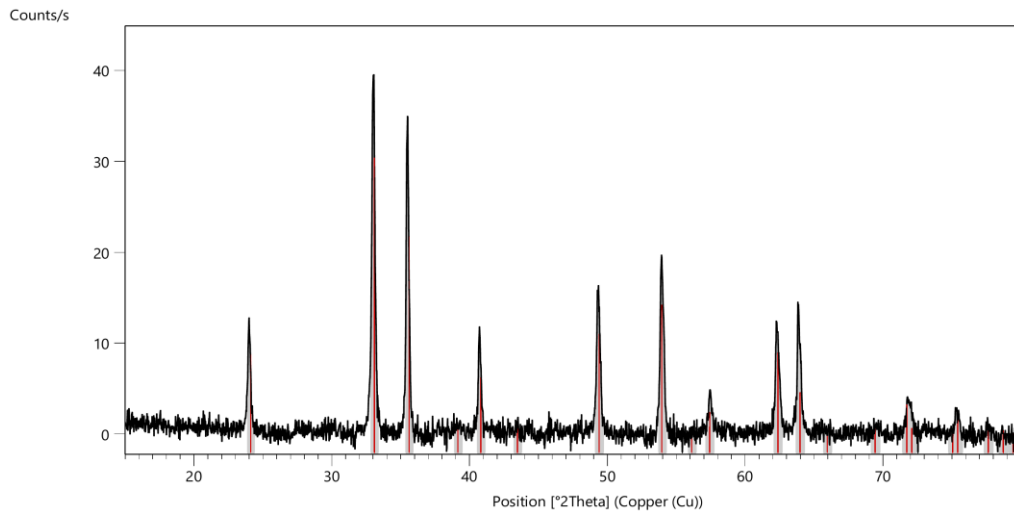


ANALYSIS

XRD

ICSD: 98-016-1291

Diiron(III) Oxide - Alpha





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.

HANDLING DRY NANOPOWDERS

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

QUESTIONS & SUPPORT

If you have any questions, please don't hesitate to contact us by email at we.are@particularmaterials.com.