

# FERROUS OXIDE NANOPOWDER







Purity  
**99.9%**

**FeO**



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    | [www.nanoshel.com](http://www.nanoshel.com) | [sales@nanoshel.com](mailto:sales@nanoshel.com)

NS6130-12-000477

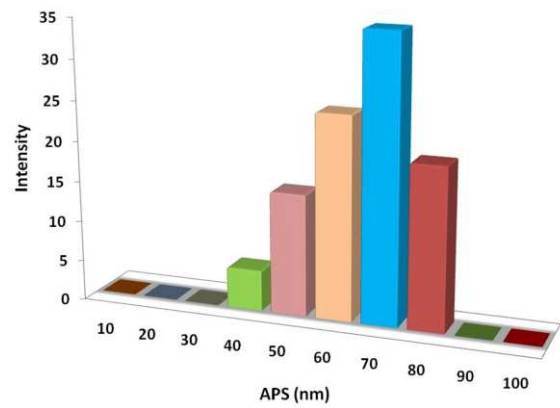
# FERROUS OXIDE NANOPOWDER

Iron oxides are widely utilized as these are inexpensive, and play an indispensable role in various biological and geological processes. They are also mostly utilized by humans, such as iron ores in thermite, catalysts and durable pigments. The iron oxides naturally exist in three common forms are magnetite ( $Fe_3O_4$ ), maghemite ( $\gamma-Fe_2O_3$ ), and hematite ( $\alpha-Fe_2O_3$ ). The ferromagnetic materials are easily magnetized by external magnetic field include elemental metals, alloys, oxides, and other chemical compounds.

Iron oxide nanoparticles show superparamagnetic properties and less toxic, these compounds have high surface area and volume ratio. Magnetic iron oxide ( $Fe_3O_4$  and  $\gamma-Fe_2O_3$ ) NPs have lured much attention and are especially interesting in biomedical applications for protein immobilization, for instance diagnostic magnetic resonance imaging (MRI), thermal therapy, and drug delivery. These NPs have been synthesized using laser ablation arc discharge, combustion, electrodeposition, pyrolysis, sol-gel synthesis, template-assisted synthesis, reverse micelle, hydrothermal, and coprecipitation methods. Iron oxide can be synthesized in distinct shapes including nanorod, porous spheres, nanohusk, nanocubes, distorted cubes, and self-oriented flowers by using nearly matching synthetic protocols and also by simply changing the precursor iron salts.

## QuickFACTS

Product	:	Ferrous Oxide Nanopowder
Stock No	:	NS6130-12-000477
CAS	:	1309-37-1
Color	:	Black Powder
Form	:	Powder
Symbol	:	FeO



### ADDITIONAL POWDER CHARACTERISTICS

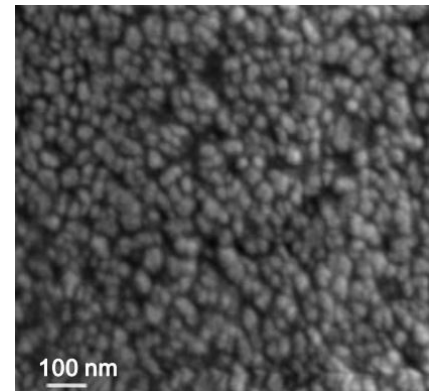
Stock No.	Purity	APS
NS6130-12-000477	99.9%	<80nm

### TECHNICAL SPECIFICATION

Molecular Formula	Molecular Weight	Density	Melting Point
FeO	71.84 g/mol	5.74 g/cm <sup>3</sup>	1377 °C

### CHEMICAL COMPOSITION

Product	Weight Percent (nominal)	
	FeO	Other Metal
Ferrous Oxide Nanopowder	99.9%	1000ppm



### APPLICATIONS

- > Agriculture
- > Environment
- > Drug delivery
- > Medical imaging,
- > Cell separation,
- > Refrigeration.



ISO 9001:2015  
CERTIFIED COMPANY

**INTELLIGENT MATERIALS PVT LTD**  
Derabassi  
Punjab (140507)  
INDIA

**NANOSHEL UK LIMITED**  
Chapel House,  
Chapel St Cheshire,  
CW12 4AB United Kingdom

**NANOSHEL LLC**  
3422 Old Capitol Suit  
1305 Wilmington DE - 19808  
United States

+91 9779 550077, 9779238252

+44 1782 454 144, +44 74 105 48802

+1 646 470 4911