

# Diamond Nanoparticles (C, >98.3%, 3-10 nm)

**Stock#:** US1066

Please click [here](#) for price information.

**Details:**

Diamond Nanopowder (C)

Purity: > 98.3%

Color: Grey

APS: 3-10 nm

SSA: 272.6289 m<sup>2</sup>/g

Decompsing Temperature: 616.73°C

Ash: 1.042%

Functionalized group on surface: --OH, --CN, --C=O, --COOH-C-O-C etc.

Electricity Conductivity: 7.7x10<sup>7</sup>, 0.1-2 (Ω.cm) (Born dopped)

MJ/mol.g: -3100 (Hydrophilia degree)

m<sup>2</sup>/kg: <1.0x10<sup>-8</sup> (Relative magnetic susceptibility)

Initial oxidization temperature: 803 K

A(J/g): 384

(mV): 3.7-75 (change with PH)

Morphology: spherical

Bulk density: 0.16-0.18 g/cm<sup>3</sup>

Pore volume: 1.314 cm<sup>3</sup>/g

True density: 3.05-3.30 g/cm<sup>3</sup>

**Explosion Synthesized**

Certificate of Analysis --%									
Diamond	Ash	Fe	Ca	Mg	Pb	Zn	Cr	Ni	Cu
98.3	1.042	0.026	0.0049	0.00027	0.0005	0.0099	0.00018	0.0005	0.00071
Na	K	C	H	N	O	Al	Co	Si	
0.0005	0.00379	89.13	1.76	2.32	5.12	<0.1	<0.1	<0.1	

**Application:**

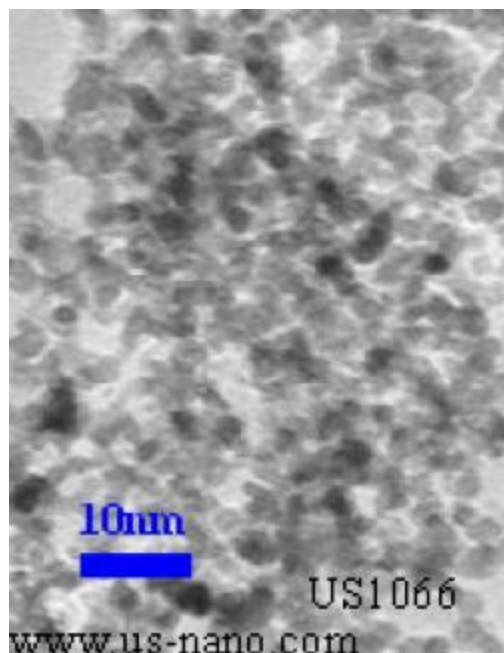
High precision polishing-for the computer disk heads, the panels, and chips, optics lenses and jewelery; Additives in Polymer complexes-can be used as a additives in rubber, glass, ceramic, and textile fabric material; Erosion-resistant diamond films/coatings; Biomedical materials (artificial bones and joints); Biosensors; Chemical sensors; Field electron emission materials; Heat-resistant diamond films/coatings; Integrated circuit substrates; Photoelectric sensors; Self-lubricating, wear-resistant composite coating; Pressure-limiting sensors; Radiation-resistant diamond films/coatings; Reinforcing agents for rubber, plastics, and resin; Seed crystal for growing larger diamond; High-strength abrasive material.....

**US Research Nanomaterials, Inc.**

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[X-Ray](#)  
[MSDS](#)

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