

New Nanomaterials from Aldrich

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Carbon Nanotubes

Catalog Number	Name	Outer Diameter (nm)	Inner Diameter (nm)	Length (μm)	Purity (%)
63,679-7	Single-walled	1.1	NA	0.5-100	95+
63,681-9	Multi-walled	<8	2-5	0.5-200	95+
63,654-1	Multi-walled	3-10	1-3	0.1-10	80+
63,652-5	Multi-walled	10-20	5-10	0.5-200	95+
63,650-9	Multi-walled	10-30	5-10	0.5-200	95+
63,651-7	Multi-walled	10-30	3-10	1-10	80+
63,649-5	Multi-walled	20-30	1-2	0.5-2	95+
63,648-7	Multi-walled	20-30	5-10	0.5-200	95+
63,661-4	Multi-walled	20-40	5-20	0.5-500	95+
63,664-9	Multi-walled	20-50	1-2	0.5-2	95+
63,663-0	Multi-walled	30-50	5-15	0.5-200	95+
63,662-2	Multi-walled	40-60	5-10	0.5-500	95+
63,684-3	Multi-walled	40-70	5-40	0.5-2	95+
63,683-5	Multi-walled	60-100	5-10	0.5-500	95+
63,639-8	Graphite, nanofibers	100-200	30-50	5-20	95+

Gold Colloid Nanoparticles (Aqueous Suspensions)

Contains:	Catalog Number	Size (nm)	Range (nm)
~0.02 % NaN ₃ as a preservative	G 1402	5	3.5-6.5
<0.01% Sodium Citrate as a stabilizer	G 1527	10	8-12
~0.01 % HAUCl ₄ and <0.01% Tannic Acid	G 1652	20	17-23
	63,819-6	40	36-44

Dry Nanopowders

Catalog Number	Composition	Formula	Avg. Particle Size* (nm)	Purity (%)
63,413-1	Aluminum titanium oxide	Al ₂ TiO ₅	<60	98.5
63,717-3	Antimony(III) oxide	Sb ₂ O ₃	68-90	99.9+
63,399-2	Barium calcium copper oxide (2:1:2)	Ba ₂ CaCu ₂ O ₇	<100	99+
63,398-4	Barium calcium copper oxide (2:2:3)	Ba ₂ Ca ₂ Cu ₃ O ₈	<100	99+
63,401-8	Barium copper oxide (1:1)	BaCuO	<60	99+
63,760-2	Barium ferrite	BaFe ₁₂ O ₁₉	<100	99.5
63,419-0	Barium oxide	BaO	<50	98+
63,382-8	Barium strontium titanium oxide	BaTiO ₃ SrTiO ₃	<100	99.9
63,188-4	Barium zirconate	BaZrO ₃	<100	99.9
63,193-0	Bismuth cobalt zinc oxide	(Bi ₂ O ₃) _{0.07} (CoO) _{0.03} (ZnO) _{0.90}	<100	99.9
63,701-7	Bismuth(III) oxide (beta)	Bi ₂ O ₃	90-120	99.9
63,418-2	Calcium oxide	CaO	<100	98+
63,415-8	Calcium silicate	CaSiO ₃	<40	99+
63,380-1	Calcium titanate	BaTiO ₃	<100	99+
63,196-5	Calcium zirconate	CaZrO ₃	<100	99.9
63,310-0	Carbon	C	<100	99.9
63,786-6	Cerium aluminum oxide	AlCeO ₃	<60	99+
63,417-4	Cerium zirconium oxide	CeZrO ₄	<40	99
63,423-9	Chromium(III) oxide	Cr ₂ O ₃	<100	99+
63,702-5	Cobalt(II,III) oxide	Co ₃ O ₄	20-30	99.8
63,363-1	Cobalt aluminum oxide	CoAl ₂ O ₄	<100	99.9+
63,422-0	Copper	Cu	<100	99.9+
63,430-1	Copper aluminum oxide	CuAl ₂ O ₄	<60	98.5
63,644-4	Diamond	C	~3.2	95+
63,642-8	Diamond	C	3.5-6.5	97+
63,728-9	Dysprosium(III) oxide	Dy ₂ O ₃	<80	99.9+
63,734-3	Erbium(III) oxide	Er ₂ O ₃	<80	99.9+
63,429-8	Europium(III) oxide	Eu ₂ O ₃	<60	99.5+
63,733-5	Gadolinium(III) oxide	Gd ₂ O ₃	<80	99.9+
63,634-7	Gold	Au	50-100	99.99+
63,732-7	Holmium(III) oxide	Ho ₂ O ₃	<80	99.9+
63,715-7	Indium hydroxide	In(OH) ₃	25-35	99.99

Dry Nanopowders

Catalog Number	Composition	Formula	Avg. Particle Size* (nm)	Purity (%)
63,231-7	Indium(III) oxide	In(OH) ₃	25-35	99.9
63,710-6	Iron(II,III) oxide	Fe ₃ O ₄	20-30	98+
63,714-9	Iron nickel oxide	Fe ₂ NiO ₄	20-30	98+
63,416-6	Iron(III) titanate	Fe ₂ TiO ₅	<60	99+
63,427-1	Lanthanum oxide	La ₂ O ₃	<60	99
63,230-9	Magnesium hydroxide	Mg(OH) ₂	<100	99.9
63,424-7	Manganese(II) titanium oxide	MnTiO ₃	<60	99
63,461-1	Neodymium(III) oxide	Nd ₂ O ₃	<100	99.9
63,397-6	Nickel chromiium oxide	NiCr ₂ O ₄	<100	99+
63,436-0	Nickel cobalt oxide	NiCoCoO	<60	99
63,713-0	Nickel(II) oxide	NiO	10-20	99.8
63,426-3	Praseodymium(III,IV) oxide	Pr ₆ O ₁₁	<40	99
63,731-9	Samarium(III) oxide	Sm ₂ O ₃	<80	99.9+
63,723-8	Silicon dioxide	SiO ₂	10-20	99.5
63,724-6	Silicon dioxide	SiO ₂	5-15	99.5
63,309-7	Silicon	Si	<100	98+
63,670-3	Silicon nitride	Si ₃ N ₄	15-30	98.5+
63,458-1	Silicon nitride	Si ₃ N ₄	<50	98+
63,435-2	Silver(I) oxide	Ag ₂ O	<100	99.9
63,383-6	Strontium ferrite	SrFe ₁₂ O ₁₉	<100	99.9
63,433-6	Strontium oxide	SrO	<100	98
63,425-5	Terbium(III,IV) oxide	Tb ₂ O ₇	<60	99.5
63,696-7	Titanium carbide	TiC	<80	98+
63,694-0	Titanium carbonitride (C 7:N 3)	TiC _{0.7} N _{0.3}	<80	97+
63,695-9	Titanium carbonitride	TiC _{0.5} N _{0.5}	<80	97+
63,726-2	Titanium(IV) oxide	TiO ₂	10 X 40**	99.5
63,725-4	Titanium(IV) oxide	TiO ₂	<15	99.7
63,466-2	Titanium(IV) oxide	TiO ₂	<40	99.9
63,730-0	Ytterbium(III) oxide	Yb ₂ O ₃	<80	99.9+
63,463-8	Yttrium aluminum oxide	Y ₃ Al ₅ O ₁₂	<60	99
63,441-7	Yttrium iron oxide	Y ₃ Fe ₅ O ₁₂	<100	99
63,384-4	Zinc iron oxide	ZnFe ₂ O ₄	<60	99.9+
63,440-9	Zinc titanium oxide	ZnTiO ₃	<80	99.5
63,439-5	Zirconium silicate	ZrSiO ₄	<40	98.5

* Particle size listed as less than (<) value is the D90 distribution determined by BET; particle size listed as a single number or range is determined by XRD

** Average dimensions of crystallites

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