



## Nitrogen-doped Carbon Nanotubes PRODUCT DATA SHEET

### Nitrogen-doped Carbon Nanotubes

#### Description

Carbon nanotubes are simple substances composed of carbon atoms and can be regarded as hollow tubular structures formed by the curling of graphene. On the surface of carbon nanotubes, the carbon atoms are bonded to each other in the form of  $sp^2$  hybrid orbitals, which are arranged as hexagonal graphite layers. In theory, this regular hexagonal structure is perfectly evenly distributed over the entire surface of the carbon nanotubes. Topologically, the common structure and properties of graphene and carbon nanotubes are one of the important factors for their similarity.

Abvigen offers high quality nitrogen-doped carbon nanotubes. The product has high repeatability between batches, which can meet the needs of various customers for personalized materials such as research and development, testing and production.

For custom sizes, formulations or bulk quantities please contact our customer service department.

**Website:** [www.abvigen.com](http://www.abvigen.com) **Phone:** +1 929-202-3014 **Email:** [info@abvigenus.com](mailto:info@abvigenus.com)

#### Characteristics

**Type:** Nitrogen-doped Carbon Nanotubes

**Size:** 1 g

**MWCNTs N Doped Purity:** > 98%

**Content of N:** 3-5wt%

**Outer Diameter:** 20-50 nm

**Inner Diameter:** 5-15 nm

**Length:** ~ 35  $\mu\text{m}$

**SSA:** > 95  $\text{m}^2/\text{g}$

**Color:** Black

**Tap density:** 0.265  $\text{g}/\text{cm}^3$

**Electric Conductivity:** > 100  $\text{s}/\text{cm}$

**Making Method:** CVD



## Applications

Additives in polymers; Catalysts; Electron field emitters for cathode ray lighting elements; flat panel display; gas-discharge tubes in telecom networks; Electromagnetic-wave absorption and shielding; Energy conversion; Lithium-battery anodes; Hydrogen storage; Nanotube composites (by filling or coating); Nanoprobes for STM, AFM, and EFM tips; nanolithography; nanoelectrodes; drug delivery; sensors; Reinforcements in composites; Supercapacitor

## Ordering Information

Website: [www.abvigen.com](http://www.abvigen.com)

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