Cobalt Oxide Nanoparticle (Co3O4, high purity, >99.5%, 30-50 nm)

Stock #: US3055
Please click here for price information.

Details:
Cobalt Oxide (Co₃O₄)
Purity: >99.5% -- ***High purity
APS: 30-50 nm
SSA: 30-80 m²/g
Color: dark brown
True density: 6.11 g/m³

***The High-purity products are prepared by using analytically pure chemical reagent as raw materials, and washed by distilled water. Its purity is higher than 99.5%. All our high-purity products are produced by our well-known research universities and national laboratories, not produced by ordinary manufactories. Ordinary products are prepared by using fine chemical raw materials, purity is up to 98-99%.

Chemical Properties:
Exposure to air, easy to absorb moisture, but does not generate water compounds. It is soluble in nitric acid. When heated to above 1200 °C, nano-cobalt oxide will be broken down into sub-cobalt oxide. In the hydrogen flame, nano-cobalt oxide is heated to 900 °C, it will be transformed into metal cobalt. Cobalt (II,III) oxide is chemical compound with the formula Co₃O₄. It is a black solid, and a mixed valence compound, containing both Co (II) and Co (III) oxidation states. It can be formulated as Co²⁺Co³⁺₂O₄ or CoO.Co₂O₃. Cobalt (II) oxide, CoO, converts to Co₃O₄ if heated to around 600-700 °C in air. Above 900 °C, CoO is stable.

Applications:
Catalysis, superconductors, ceramics and other fields as an important inorganic materials; As catalyst and catalyst carrier and the electrode active material; For glass, porcelain colorants and pigments; Chemical industry oxidant and a catalyst for organic synthesis; Senior goggles and other filter materials; Carbide; Temperature and gas sensors; For the semiconductor industry, electronic ceramics, lithium ion battery electrode materials, magnetic materials; Electrochromic devices; Enamels; Grinding wheels; Heterogeneous catalysts; Solar energy absorbers....