

# COBALT MONOXIDE **NANOPOWDER**















### COBALT MONOXIDE NANOPOWDER

Cobalt nanoparticles (CoNPs) are promising nanomaterials with exceptional catalytic magnetic, electronic, and chemical properties. The nano size and developed surface open a wide range of applications of cobalt nanoparticles in biomedicine along with those properties.

Cobalt has different oxide compounds such as cobalt monoxide (CoO), cobalt(II, III) oxide (Co3O4), and cobalt(III) oxide (Co2O3). The nanoparticles of these materials are usually in powder form. Cobalt oxides usually have cubic (CoO, Co3O4) or trigonal (Co2O3) crystal structure. High theoric specific capacities of CoO (715 mAh/g) and Co3O4 (890 mAh/g)have attracted considerable attention for applications in lithium-ion batteries.Co3O4 is an important p-type semiconductor with antiferromagnetic properties.. CoO has been well known as the pigment cobalt blue in pottery. CoO is also antiferromagnetic and electrically insulating. It is utilized in gas sensing applications, catalytic applications, and water-splitting processes. CoO is also used as a precursor for obtaining cobalt salts.

# Quickfacts

anopowder	
	anopowder

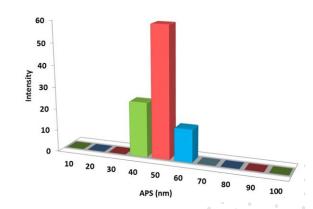
Stock No : NS6130-03-380

CAS : 1307-96-6

Color : Black/Grey

Form : Powder

Symbol : CoO



#### ADDITIONAL POWDER CHARACTERISTICS

Stock No.	Purity	APS
NS6130-03-380	99.9%	50nm

#### TECHNICAL SPECIFICATION

	Molecular Formula	Molecular Weight	Density
0	CoO	74.93g/mol	6.1 g/cm <sup>3</sup>
0			

#### CHEMICAL COMPOSITION

Product	Weight Percent (nominal)	
	CoO	Other Metal
Cobalt Monoxide Nanopowder	99.9%	1000ppm

## **APPLICATIONS**

- It is used in various different applications such as pigments, catalysis, sensors, electrochemistry, magnetism, solid-state sensors, and electrochromic devices
- > In micro-electronics
- As a magnetic nanoparticles with numerous uses in microbatteries, nanowires, and specific alloy and catalyst applications. In catalysis, superconductors, electronic ceramics and other fields as an important inorganic material
- > For glass, porcelain colorants and pigments
- > Chemical industry oxidants
- > Senior goggles and other filter materials
- > As carbides
- > In temperature and gas sensors
- > In electrochromic devices
- > In enamels, grinding wheels, and solar energy absorbers







ISO 9001:2015 CERTIFIED COMPANY