

## COBALT OXIDE NANOPOWDER

Cobalt oxide nanoparticles have potential applications in lithium-ion batteries and electronic gas sensors. Cobalt oxide particles may be anchored on substrates such as graphene to improve the dimensional stability of the anode and to prevent particle aggregation during lithium charge and discharge processes. The unique properties of cobalt oxide nanopowders see them used and experimented with in a number of electronic applications, including semiconductors, superconductors, electronic ceramics, lithium ion batteries, electro chromic devices, and solar energy absorbers. As is the case for many nanomaterials, cobalt oxide nanopowders have been utilized as catalysts and catalyst carriers for a variety of reasons. Most notably, they're useful in organic synthesis, in heterogeneous catalysts, and as an electro active catalyst material

# Quick FACTS

Product	(`obalt	()	Nanopowder 🛚
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Stock No : NS6130-03-307

CAS : 1308-06-1

Color : Black

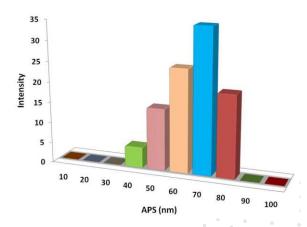
Form : Powder

Symbol : Co₃O₄

Group: Cobalt 9/Oxygen 16

## **Electronic Configuration:**

Cobalt [Ar] 3d7 4s2/Oxygen [He] 2s2 2p4



#### ADDITIONAL POWDER CHARACTERISTICS

Stock No.	Purity	APS
NS6130-03-307	99.9%	<80nm
NS6130-03-308	99.9%	20nm

### TECHNICAL SPECIFICATION

	Molecular Formula	Molecular Weight	Density	Melting Point
0	Co <sub>3</sub> O <sub>4</sub>	240.80 g/mol	6.1 g/cm <sup>3</sup>	895 °C

#### CHEMICAL COMPOSITION

Product	Weight Percent (nominal)		
	Co <sub>3</sub> O <sub>4</sub>	Other Metal	
Cobalt Oxide Nanopowder	99.9%	1000ppm	

#### **APPLICATIONS**

- > As catalyst and catalyst carriers
- > As an electrode active materials
- > For glass, porcelain colorants and pigments
- > Chemical industry oxidants
- > Senior goggles and other filter materials
- > As carbides
- > In temperature and gas sensors
- > In electro chromic devices







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