

## Cuprous Oxide Nanoparticles CONP101

### Description:

Cu<sub>2</sub>O nanoparticles is an important metal-oxide p-type semiconductor with a direct small band gap of 2.17 eV, which makes it a promising material for the conversion of solar energy into electrical or chemical energy. In addition to this, it is used in applications such as: photo catalysis, Lithium ion batteries, optoelectronic and gas sensors. Cuprous oxide is commonly used as a pigment, a fungicide, and an antifouling agent for marine paints.

Characterization	
CAS	1317-39-1
Stock No.	CONP101
Molecular formula	Cu <sub>2</sub> O
Molecular weight (g/mol)	143.09
Form	Powder
Color	Orange
Morphology	Nearly spherical
Crystal structure	SC
Size range(>95%, nm)	50-100
Total impurity (%)	N/A
Solubility	Insoluble

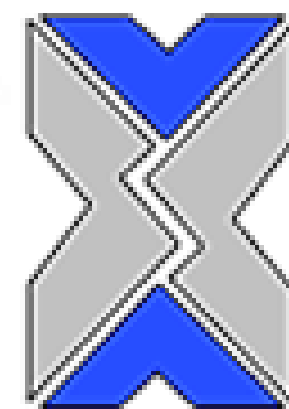
**Note:** product specifications are subject to amendment and may change over time.



Image of cuprous oxide nanopowder  
(CONP101)

### Safety:

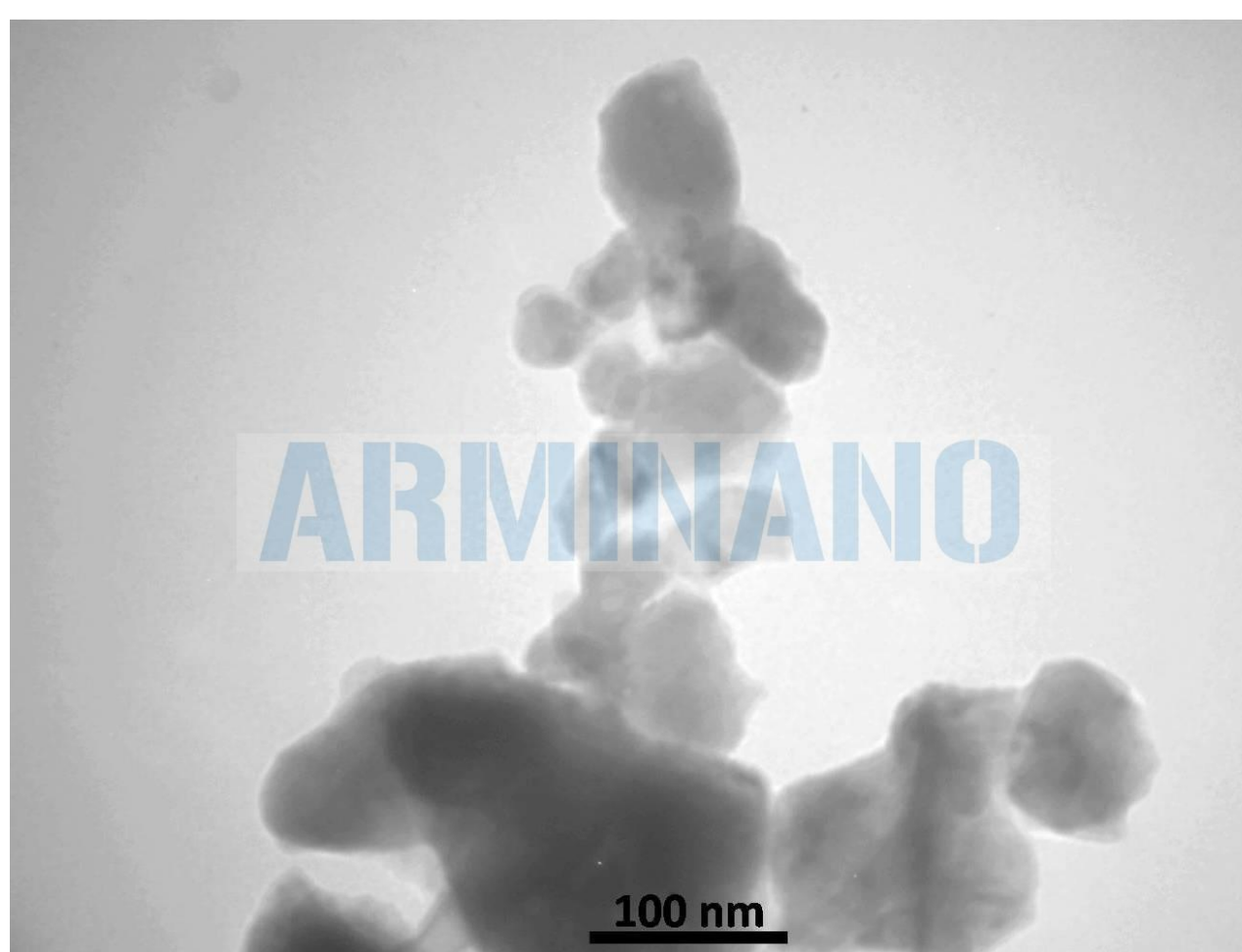
Avoid breathing dust.  
Always use protective gloves and safety glasses.  
Wash with soap and water after exposure.  
Refer to MSDS prior to handling this material.



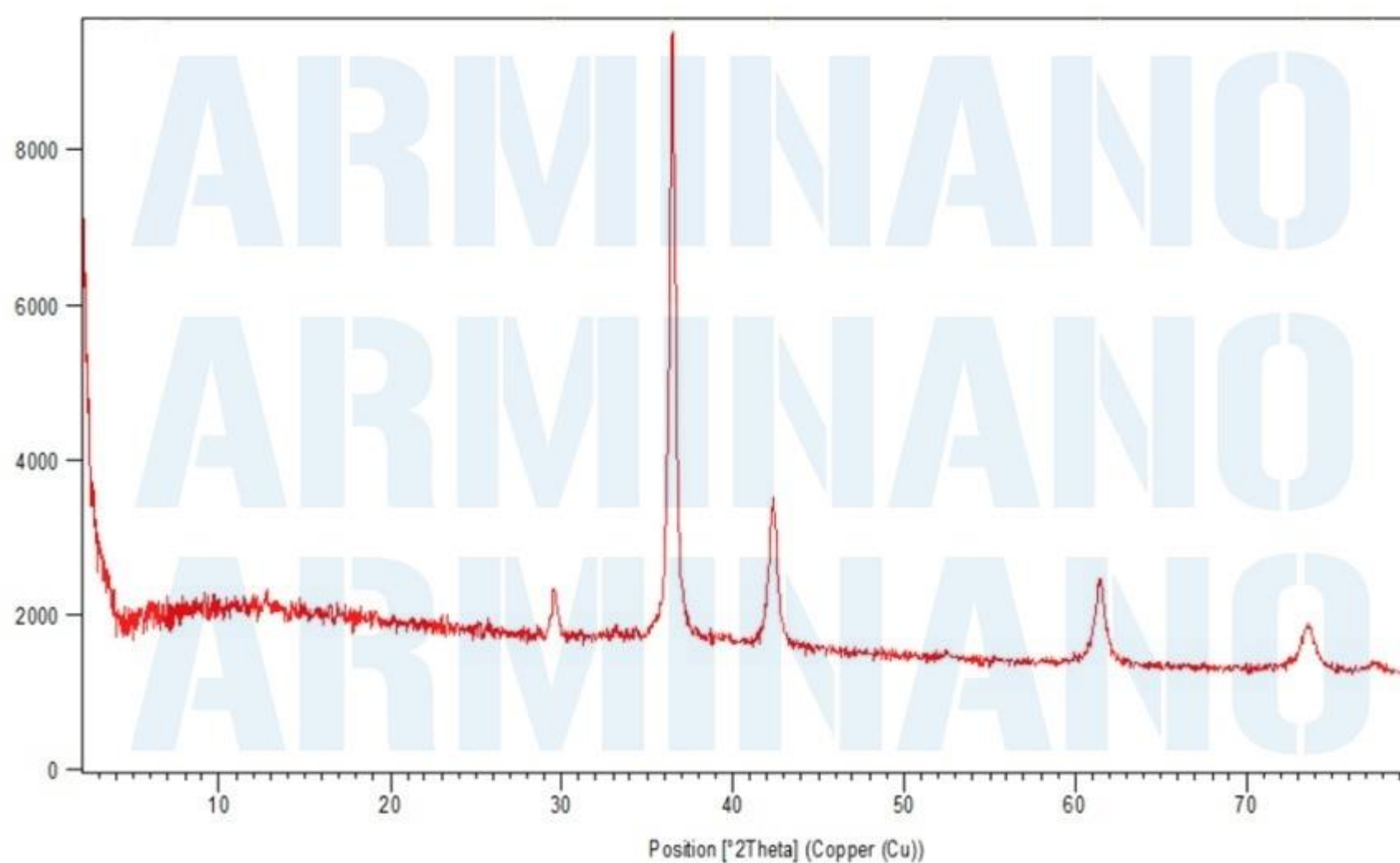
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SEM image of CONP101



TEM image of CONP101



XRD pattern of CONP101

### Storage:

- Keep it in cool dry place.
- Avoid direct sunlight.
- Do not freeze.
- To disperse powder use sonication.

### Shelf life:

When stored as specified the product is stable for at least 6 months.