

## Copper Nanoparticles CNP12

### Description:

Suspension of copper nanoparticles are produced with concentrations of 1000, 2000, and 4000 ppm and functionalized by SLS or PVP.

Characterization	
CAS	7440-50-8
Stock No.	CNP124
Molecular formula	Cu
Molecular weight (g/mol)	63.55
Form	Water + Ethylene glycol Or Ethylene glycol
Color	Brown
Concentration (mg/mL)	4
Functional group	SLS Or PVP
Morphology	Spherical
Crystal structure	FCC
Size range (nm)	20-40
Total impurity (%)	< 3
Oxide density (g/cm <sup>3</sup> )	N/A



Image of suspension of copper nanoparticles (CNP12)

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

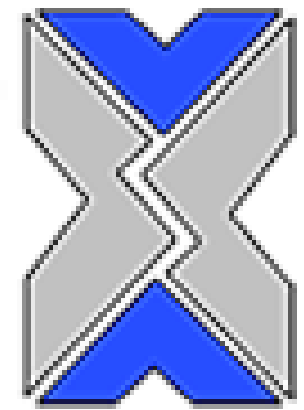
### Applications (but not limited to the following):

Catalysts, conductive inks and coatings, sintering additives, medicine and anti-bacteria, lubricant additives, heat transfer materials, Integrated circuits, batteries, solar cells, capacitors, radio frequency shielding

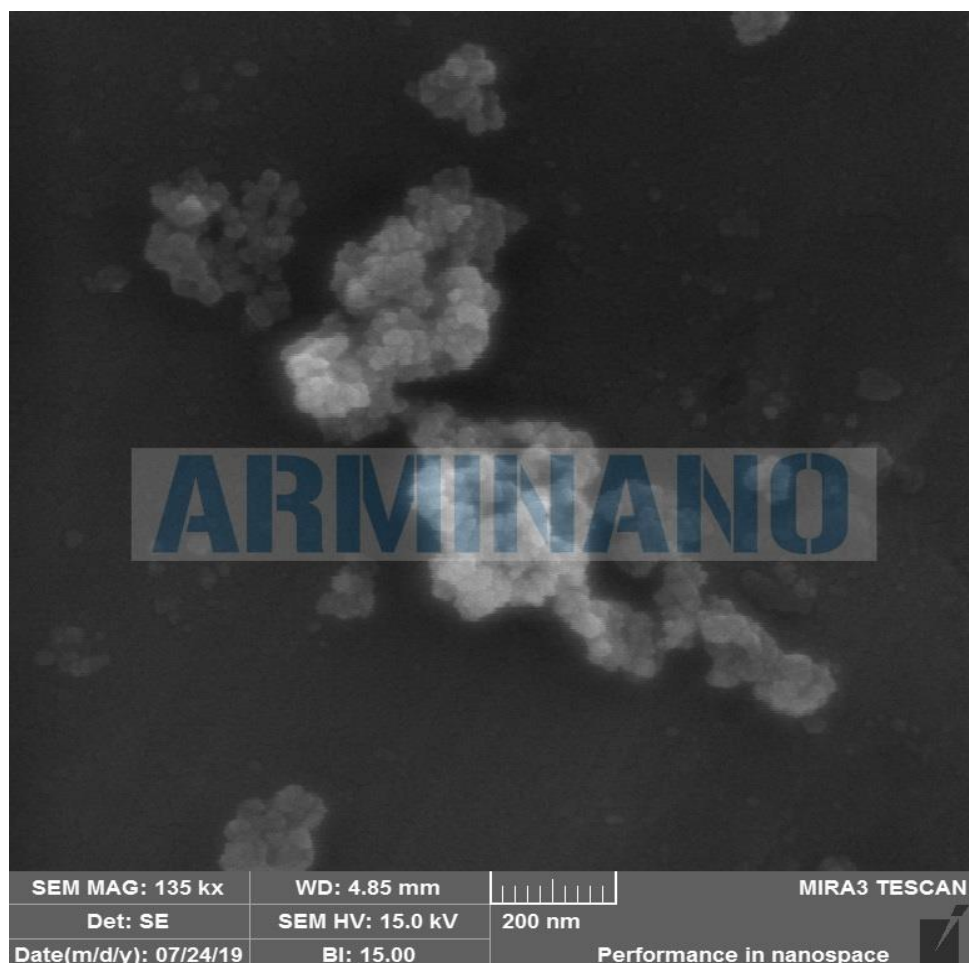
### Safety:

Always use protective gloves and safety glasses.  
Wash with soap and water after exposure.  
Do not expose to extreme heat or flame.  
Refer to MSDS prior to handling this material.

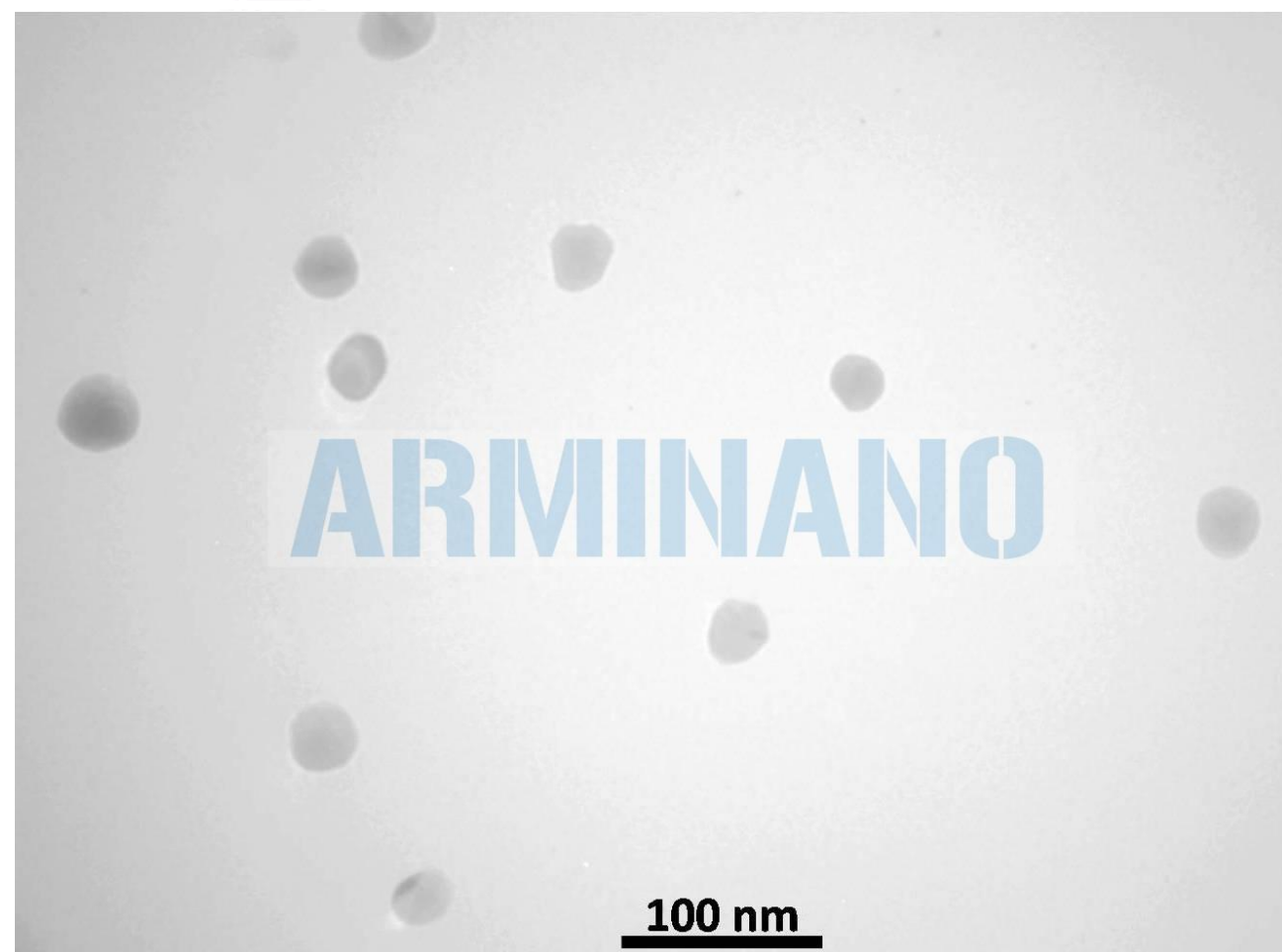




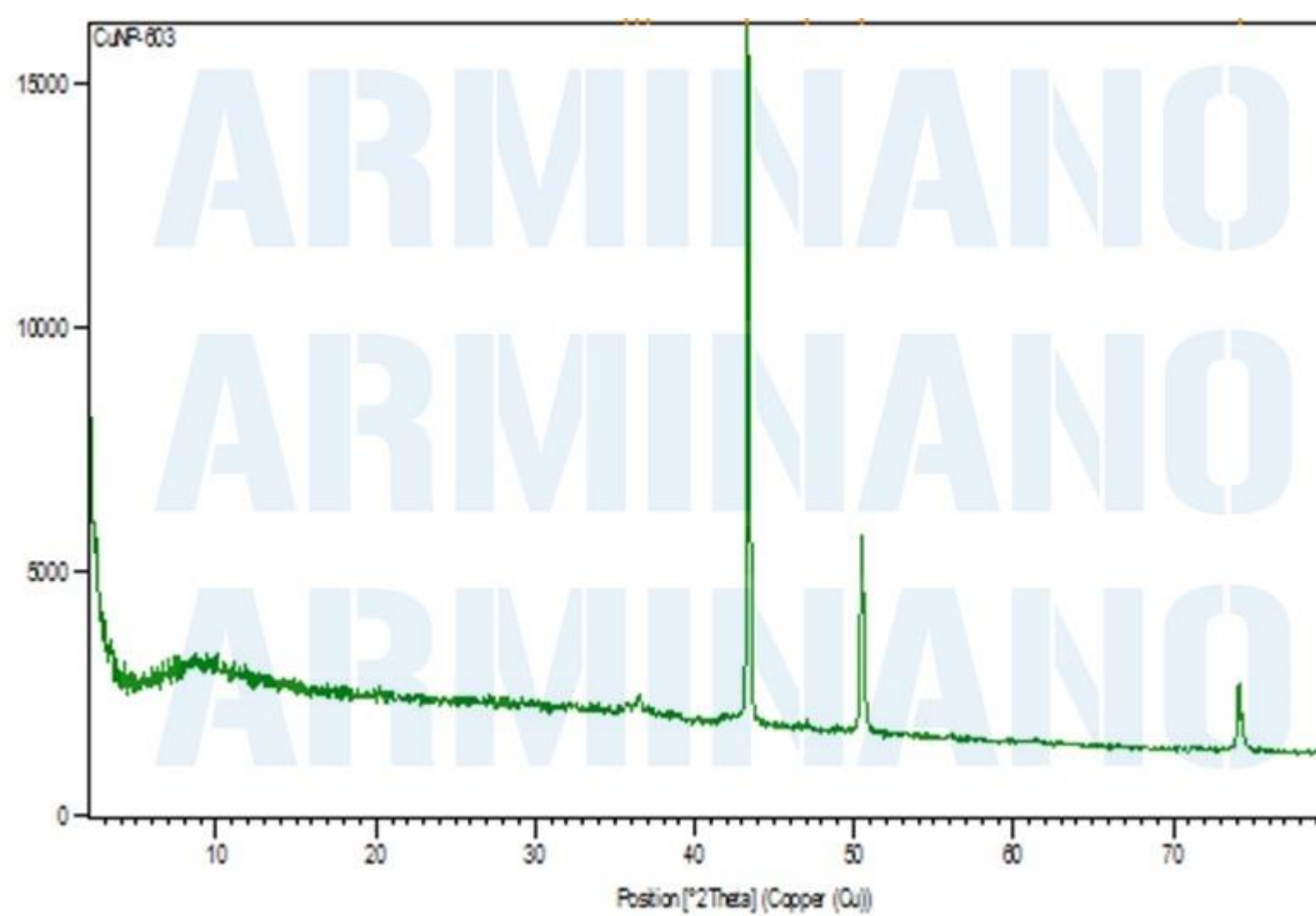
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SEM image of CNP12



TEM image of CNP12



XRD pattern of CNP12

### Storage:

- Keep it in cool dry place.
- Avoid direct sunlight.
- Do not freeze.
- To disperse sedimented nanoparticles sonication could be used.

### Shelf life:

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