

Copper Microparticles  
CMP109

Description:

Copper atom has lost one electron so the ions vibrate and free electrons move between them. This results in best electrical and thermal properties of Cu. Copper is a naturally hygienic metal that slows down the growth of bacteria and acts as an anti-biotic, anti-microbial, and anti-fungal agent.

Characterization	
CAS	7440-50-8
Stock No.	CMP109
Molecular formula	Cu
Molecular weight (g/mol)	63.55
Form	Powder
Color	Red brown
Morphology	Dendritic
Crystal structure	FCC
Size range (µm)	3-7
Total impurity (%)	N/A
Oxide density (g/cm3)	N/A
Melting point (°C)	1084.62
Boiling point (°C)	2927
Density (g/cm3)	8.9
Solubility	Insoluble



Image of copper micropowder (CMP109)

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

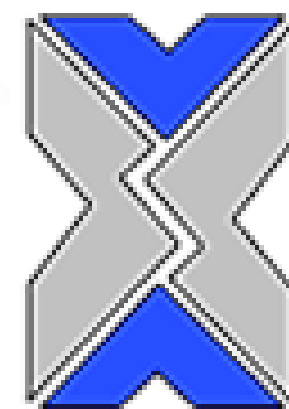
Applications (but not limited to the following):

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

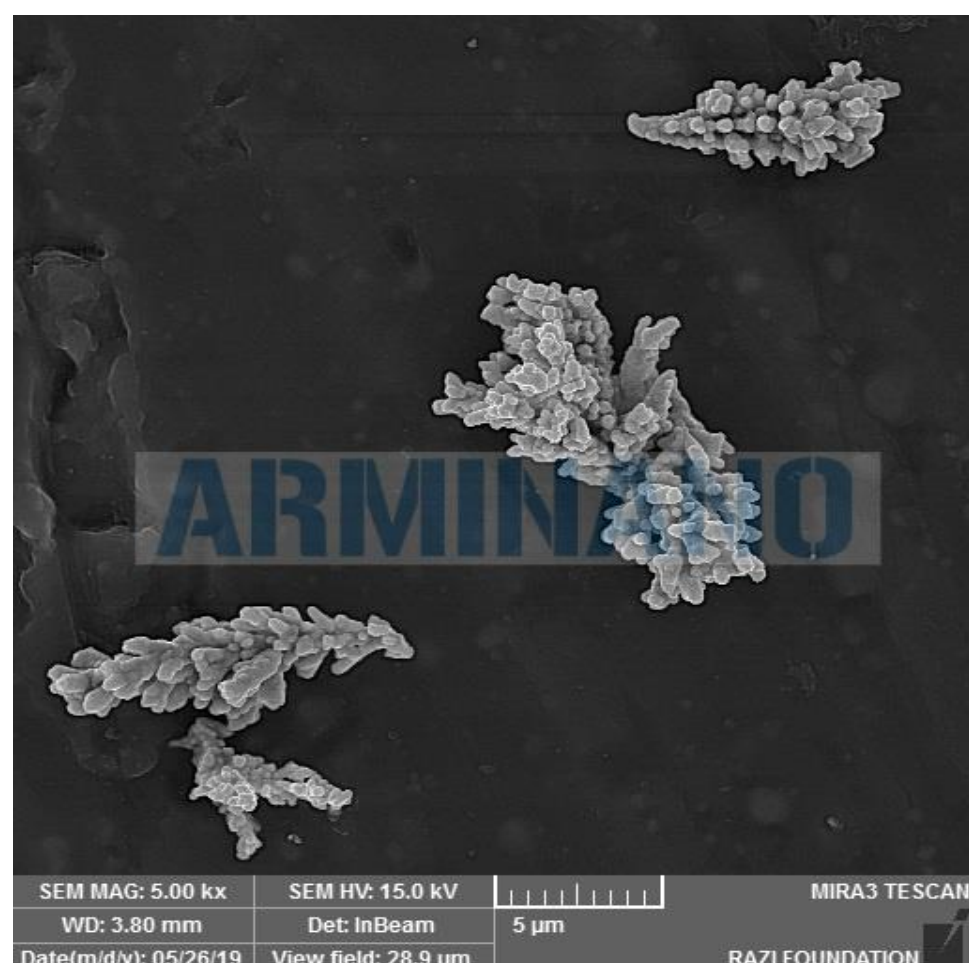
Safety:

- Avoid breathing dust.
- 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.

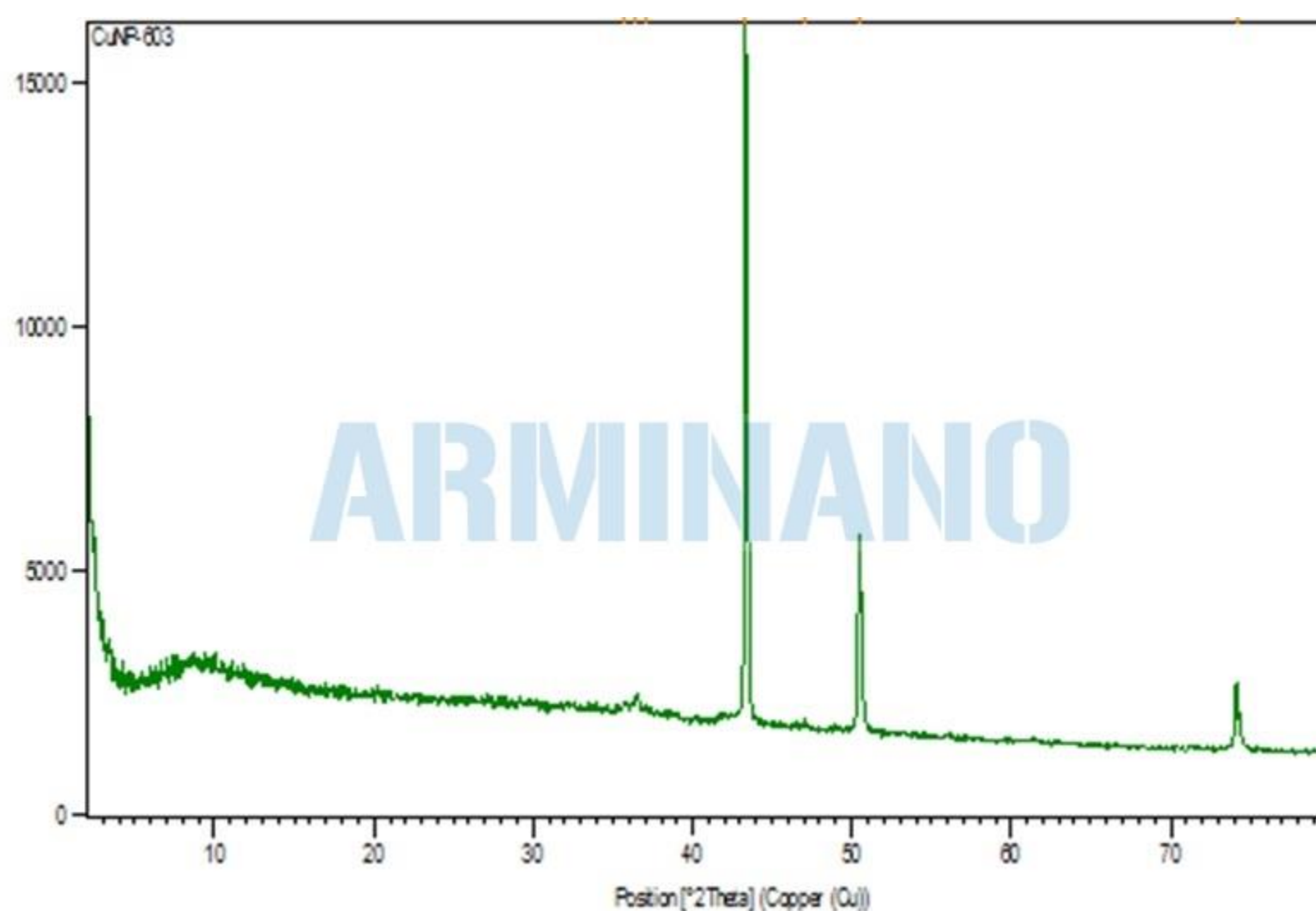




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SEM images of CMP109



XRD pattern of CMP109

### Storage:

Keep it in cool dry place.  
Avoid direct sunlight.  
Do not freeze.  
To avoid oxidation, do not expose to air for so long .  
To disperse nanoparticles sonication could be used.

### Shelf life:

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

