

NANO SILVER

QSI-Nano® silver nanopowder is manufactured by a patented vapor condensation process. Average particle sizes from 20 to 40 nanometers can be produced.

QSI-Nano® Silver Typical Analysis

| | |
|-----------------------------|---------------------------|
| Chemical Formula | Ag |
| Crystal Phase | FCC |
| Particle Size Range | 20 – 40 nm |
| Oxide Thickness Range | N/A |
| Specific Surface Area (BET) | 15 – 25 m ² /g |
| Color | Dark Gray-Black |
| Bulk Density | .25 g/cm ³ |
| Ag Density | 10.49 g/cm ³ |
| T _{melt} of Ag | 962° C |

Custom Formulation and Production

Depending on a customer's specific application and needs, QSI offers nano silver as a dry, unfunctionalized powder, or dispersed in a selected carrier fluid.

Pricing Information

Call for a quote. Prices are subject to change without notice. Delivery time and shipping charges will be quoted at time of order.

Quotes, Orders and Information

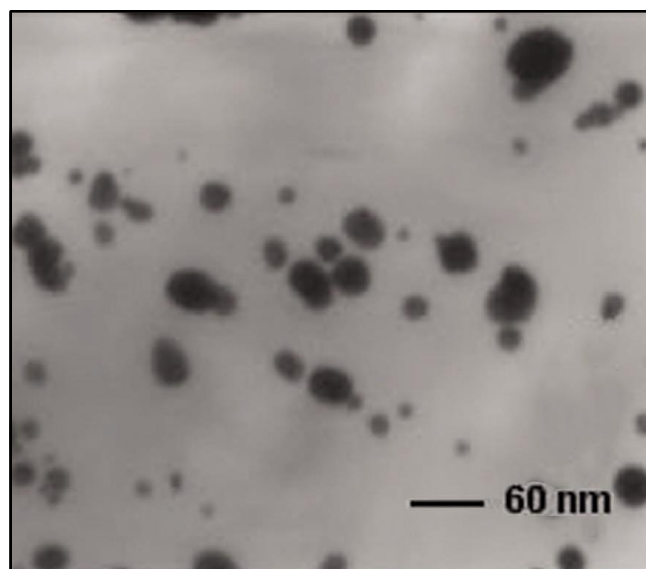
Call 714-545-NANO (6266) to speak with a product specialist or visit us online at www.qsinano.com.

QuantumSphere, Inc.

2905 Tech Center Drive
 Santa Ana, CA 92705
 714-545-NANO (6266)
 Fax: 714-545-6265
www.qsinano.com



QSI-Nano® silver powder



QSI-Nano® silver is available in sizes ranging from 20 to 40 nanometers.

QSI-Nano® Silver Applications

| ADVANCED APPLICATIONS | QSI-Nano® ADVANTAGES |
|---|--|
| Filtration <ul style="list-style-type: none"> • Gas Separation • Biological Protection Systems | Filters solutions or gases to remove bacteria, viruses, bio-hazards and pollutants. |
| Electrodes <ul style="list-style-type: none"> • Alkaline Fuel Cells • Integrated Circuits • Water Electrolysis • Capacitors | Huge surface area and greater surface energy combine to produce orders of magnitude increase in reactive performance. |
| Coatings and Sealants <ul style="list-style-type: none"> • Thin Films • Paints • Polymers • Inks | <ul style="list-style-type: none"> • Highly Conductive • Anti-Corrosive • Printed Circuits • Increased Thermal Conductivity • Antimicrobial • Abrasion Resistance • Radio Frequency Shielding |
| Biomedical <ul style="list-style-type: none"> • Sensors • Drug Delivery • Anti-bacterial • Anti-fungal • Air and Water Purification | <ul style="list-style-type: none"> • Bio-hazard detection • Antimicrobial • Anti-Inflammatory |

Disclosure: QuantumSphere, Inc. makes no guarantee of results and assumes no liability for injuries, damages or penalties resulting from the use of our products, as the conditions of handling and use are beyond our control. In purchasing or receiving these products, the customer acknowledges that there are hazards associated with their use. The Customer represents and warrants to us that from customer's own independent review and study it is fully aware and knowledgeable about (a) the health and safety hazards associated with the handling of the products purchased; (b) industrial hygiene controls necessary to protect its workers from such health and safety hazards; (c) the need to adequately warn of health and safety hazards associated with these products; and (d) government regulations regarding the use and exposure to such products. These products are exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

Avoid contact with skin and eyes. Avoid breathing dust. Use only with adequate ventilation. Always use Neoprene or Nitrile protective gloves and safety glasses. NIOSH certified respirators are recommended and will be useful for protecting workers from nanoparticle inhalation when opening/emptying containers or processing this material. Do not eat or drink in work area. Wash in soap and water after exposure to any dust. Refer to MSDS prior to handling this material.

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