

# TECHNICAL DATA SHEET

## AQUEOUS SILVER DISPERSION

**Bio PAint Ag** is an aqueous silver dispersion with low toxicity and low sensitization potential, developed specifically for protection against bacteria and fungi. **BioPAint** technology is compatible for use as an additive in paints, providing an effective action against microorganisms and using a low concentration of silver. Ideal additive for use in a wide range of water-based processes. Its efficacy has been tested, based on ISO 22196:2011, against microorganisms such as: *Enterococcus faecalis*, *Staphylococcus aureus*, *Escherichia coli*, *Salmonella typhimurium* and *Candida albicans*. It has been proven to reduce the growth of these microorganisms by up to 99.99 %.

### IDENTIFIERS

- EC Nº: 231-131-3
- Nº CAS: 7440-22-4
- UN 3082
- Nº REACH: A registration number is not valid for this substance as the substance or its applications are exempted from registration. The annual tonnage does not require registration or your registration is expected at a later date.
- WGK Germany: 3

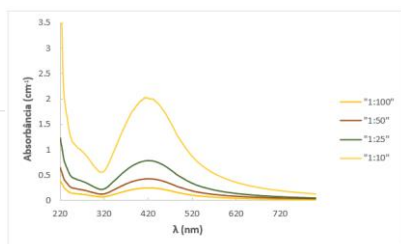
Store the product away from light and heat. **Storage temperature ranges:** 2-8°C (recommended temperature); 9-25 °C (acceptable temperature). **Do not freeze.**

### PRESENTATION

Plastic Flasks containing 1L.

- **Molecular weight:** 107.87 g/mol
- **Color:** light yellow to brown
- **Physical Estate:** liquid/ **morphology:** spherical
- **Hydrodynamic Diameter of particles (DLS)** – (based on ISO 13320): <2 µm
- **Zeta Potential:** -17.5±1.3 mV
- **Total silver mass concentration:** 0.2 - 2 mg/ml
- **Density at 20 °C:** 0.9953±0.01 g/ml
- **pH:** 8±0.2
- **Solvent:** water
- **Recommended dilution:** 0.25-0.5 % (v/v) (effective against microorganisms, based on tests performed and in accordance with ISO 22196:2011)
- **Recommended retest period:** 6 months

### OPTICAL PROPERTIES



### INSTRUMENTATION

- **Spectral properties:**  
PG INSTRUMENTS - T80 UV- VIS Spectrometer
- **Hydrodynamic diameter/Zeta potencial:**  
Malvern Zetasizer nano zs

BRinova guarantees that, on the date of launch or the date of subsequent new tests, this product follows the information contained in this document.



R. Fernanda Seno, 6, Évora, 7005-485, Portugal  
Website: [www.brinova.eu](http://www.brinova.eu)  
Email: [contato@brinova.eu](mailto:contato@brinova.eu)

A product

BRinova