



Nano Silver based
Anti-Microbial
sanitizer

Stock No: NS6130-10-1505



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Nano Silver based Anti-Microbial Sanitizer

Silver and gold Nanoparticles are rapidly emerging as effective solutions to a variety of issues related to COVID-19, from theranostics (therapy plus diagnostics) to disinfection to imaging. The relevance of nanoparticles is owing to their size (less than 100 nm), which is comparable to that of COVID-19 virus, and a plethora of functionalities such as targeting and drug delivery that can be tailored. Silver based nanomaterials exhibit strong bactericidal effect on many species of bacteria while exhibiting low toxicity towards animal cells. AgNPs are fast acting and effective at quite low concentrations. These characteristics make silver nanoparticles (AgNPs) an attractive candidate as a prospective disinfectant that can be used to prevent COVID-19 infections. Silver nanoparticles have been found to be an effective antiviral which act

against many deadly viruses like HIV, Hepatitis B, Herpes simplex virus, Influenza virus, and so on. Research by scientists Ag NP-based materials will be able to prevent the contact infection of health care workers (HCWs), besides preventing patient infection. Thus colloidal silver on which the technology of the sanitizers can help arrest COVID-19 spread by blocking the RNA replication and infectivity by blocking the surface glycoproteins. Silver nanoparticle based organic sanitizer perfectly ensures clean hands and forms a protective antibacterial layer on the skin. Silver nanoparticles eliminate all known microbes, building immunity against airborne germs, bacteria and infections viruses. Castor oil deeply nourishes and moistens delicate skin. Your hands are purified, hydrated and protected

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Quick FACTS

Product	: Hand Sanitizer
Stock No	: NS6130-10-1505
Type	: Nano Silver Sanitizer
Color	: Transparent
Form	: Thick Transparent



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Special Properties of Sanitizers

- ✓ Strong antimicrobial activity against various microorganisms
- ✓ Large surface area
- ✓ Anti-fungal
- ✓ Anti-inflammatory
- ✓ Anti-viral properties
- ✓ Anti-microbial properties
- ✓ Cost-effective solution



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Citing Of Nanosilver For Use As Antibacterial Agent

Silver is a soft and shiny transition metal which is known to have the highest reflectivity of all metals. Among its many useful properties, silver is recognized to have antimicrobial activity. Silver is known to be biologically active when it is dispersed into its monoatomic ionic state (Ag^+), when it is soluble in aqueous environments. This is the same form which appears in ionic silver compounds such as silver nitrate and silver sulfadiazine, which have been frequently used to treat wounds. Another form of Silver is its native Nanocrystalline form (AgO). The metallic (AgO) and ionic forms can also appear loosely associated with other elements such as oxygen or other metals and can form covalent bonds or coordination complex. Silver nanoparticles to other household objects with frequent handling such as keyboards, bath safety aids, and bathroom safety handle. Special stand-alone products such as containers for meat or water/wine/milk storage are useful applications where bacterial contamination may present a health issue.

References for Silver Nanodispersion

- ✓ Institute of Construction Technologies, National Research Council, I-35127 Padova, Italy; NePCM Based on Silver Dispersions as Stable Solution for Thermal Storage:
- ✓ Department of Physics, Faculty of Science, Universiti Putra Malaysia (UPM), 43400 Serdang, Malaysia Silver Nanoparticles Dispersed in Various Aqueous Media Using Laser Ablation. M. Tajdidzadeh, B. Z. Azmi, W. Mahmood M. Yunus, Z. Abidin Talib, A. R. Sadrolhosseini, K. Karimzadeh, S. A. Gene, and M. Dorraj
- ✓ Department of Chemical Engineering and Laboratory for Laser Energetics, 206 Gavett Hall, University of Rochester, Rochester, New York Narrowly Dispersed Silver Nanoparticles Using a Single-Source Precursor. Xue Zhang Lin, Xiaowei Teng, and Hong Yang
- ✓ Mendelev University of Chemical Technology, Miusskaya pl. 9, Moscow, 125047 Russia Silver metal nanodispersions using Tollens reagent. K. I. Kienskaya, K. Yu. Sigal, E. V. Il'yushenko, A. A. Kuzovkova, O. V. Yarovaya & V. V. Nazarov Colloid
- ✓ National Institute of Standards and Technology (NIST), Gaithersburg, Maryland, USA Dispersion stabilization of silver nanoparticles in synthetic lung fluid studied under in situ conditions, ROBERT I. MACCUSPIE, ANDREW J. ALLEN, & VINCENT A. HACKLEY Materials Science and Engineering Laboratory
- ✓ Vietnam Academy of Science & Technology. Silver nanoparticles their characterization and biomedical application, Rupali S Patil, Mangesh R Kokate, Chitra L Jambhale, Sambhaji M Pawar, Sung H Han and Sanjay S Kolekar, Published 14 March 2012 • 2012

Additional Powder Characteristics

Stock No.	Bacterial Filtration Efficiency
NS6130-10-1505	99.9%

Technical Specification

Molecular Formula	Molecular Weight	Density	Melting Point	Boiling Point
Ag	107.87 g/mol	0.04-5g/cm3	>1600	2230 °C

Product Specification

- ✓ Silver : 20ppm
- ✓ Shelf Life : Long-lasting (6-12 months*)
- ✓ Type : Nano-enabled long-lasting anti-bacterial coating
- ✓ Specialty : Ability to kill 99.9998% of bacteria, viruses and fungi
- ✓ Color : Transparent
- ✓ IPA : 70%
- ✓ Function : Protection against COVID 19

Handling Recommendations

- ✓ Store in the original container in a dry location.
- ✓ Tumble contents prior to use to prevent segregation.
- ✓ Open containers should be stored in a drying oven to prevent moisture pickup.

Safety Recommendations

Download MSDS/SDS NS6130-10-1505

SDS are available from the Nanoshel

Website at

<https://www.nanoshel.com/product/nano-silver-based-anti-microbial-sanitizer>

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