



PURE Bioscience, Inc.- Technical Bulletin

PURE Control®  
Food Processing Antimicrobial



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## 1. Product overview

PURE Control® Concentrate is a silver dihydrogen citrate (SDC) antimicrobial that can reduce pathogen populations without negative organoleptic effects. The electrolytically generated antimicrobial provides an environmentally responsible solution to food safety challenges. PURE Control has been developed as an antimicrobial processing aid for direct application on produce to reduce pathogen populations. PURE Control maximizes microbial control and is highly effective against *Salmonella*, *Listeria*, *E. coli* and many other pathogens.

## 2. Benefits

PURE Control is an approved antimicrobial agent without any labeling requirements or neutralization step required. The solution is stable in concentrated and use dilution form without any off-gassing. PURE Control is also odorless and non-toxic, improving worker safety. PURE Control has no effect on nutritional composition and is not impacted by temperature.

## 3. Properties/Action of the Substance

Silver Dihydrogen Citrate (SDC):  $\text{AgC}_6\text{H}_7\text{O}_7$

Other ingredients: Citric Acid (77-92-9), Sodium Lauryl Sulfate (151-21-3), water

GHS Classification – Eye Damage/Irritation Category 2B

Signal Word: Warning

Hazard Statement: Causes eye irritation

Appearance: Clear, colorless to slightly grey.

Density: 1.09

Odor: None

Solubility: Water Soluble

pH at use dilution: <4.0

Silver ions are highly attracted to sulfur-containing thiol groups found in metabolic and structural proteins bound to the membrane surface. SDC targets these critical proteins and destroys their structure. This disruption of the organisms' membrane function and integrity lyses the membrane and the organism dies. In addition, SDC binds to the DNA and intracellular proteins causing irreversible damage to the DNA and protein structure, halting metabolic and reproductive functions.



## 4. Applications/Directions for Use

PURE Control is not to be used with any other silver containing antimicrobial during food processing. It is to be used in conjunction with PURE Control Activator or as approved by PURE.

**Produce:** For use as a spray or dip on fruits or vegetables intended for processing. Not intended for use on any citrus fruit nor for use on grapes intended for winemaking.

The User(s) is responsible for compliance with applicable Federal, State and local laws regarding proper use and disposal of the waste generated.

Dilute PURE Control with PURE Control Activator as recommended by your PURE Bioscience representative. Not to be used above 30 PPM silver on produce (+/- analytical variance).

## 5. Compatibility

PURE Control dilutions are non-corrosive to processing equipment; compatible with SS304 and SS316. May be slightly incompatible with aluminum and copper metals after prolonged exposure. Product IS compatible with most metals including stainless steels.

## 6. Storage

Store in a cool, dry place when not in use. Keep concentrate from freezing. Keep concentrate out of direct sunlight.

Exposure to sunlight can cause the PURE Control Concentrate and PURE Control dilution to turn slightly grey. This is not expected to reduce the activity of the solution. It is expected that users will perform QA monitoring during production.

## 7. Authorization/Approved Legal Uses

Produce Food Contact Notification: FCN 1600

You can find access to documentation regarding PURE products at [www.purebio.com](http://www.purebio.com).