

Vikan's position regarding the use of silver as a surface antimicrobial

Vikan has investigated the use of silver as a surface antimicrobial technology and decided not to incorporate this additive in our products.

The main reason for this is that incorporating an antimicrobial in a cleaning or food handling tool is only one step in the decontamination process. The antimicrobial silver will only work effectively when the tool is clean (free from visible organic soiling) and it is given enough time, at an appropriate humidity and temperature, to work.

Instead Vikan is focused on providing our customers with hygienically designed tools;

and information on the selection, use and maintenance of those tools, to minimise cross-contamination and maximise food safety. Vikan always follows the trends and technologies that support these goals.

Vikan also cares about the environment and is concerned about the impact industrial scale use of silver will have on our ecosystem.



Pros and cons of using silver as an antimicrobial

- ✓ Used under the right conditions it works.
- ✓ Silver is currently used by NASA to help ensure safe water supplies in space.
- ✓ Laboratory based testing¹ can demonstrate that silver is an *effective surface antimicrobial. **When microbes are exposed to the silver for 24 hours, at 35°C and >95% humidity (allows for optimal results).*
- ✓ When used in addition to effective cleaning and maintenance, silver can provide an additional challenge to microbes on surfaces.
- ✓ Silver is being used in more and more products including wound dressings, clothing/textiles, paint, and glass.
- ✓ Silver is being used in the food industry including conveyer belts, flooring, cleaning and food handling equipment, food packaging, and carrier bags.
- ✗ Silver will only be fully effective as a surface antimicrobial on a cleaning or food handling tool when the tool is clean and it is given enough time, at an appropriate humidity and temperature, to work.
- ✗ Conditions in a food factory rarely reflect the conditions used for laboratory tests. Surfaces are often visibly dirty; environmental temperatures and humidity can be much lower; and cleaning tools and utensils are often in constant use.
- ✗ Food debris can act as a barrier between the microbes and the silver and protect them from the antimicrobial effect.
- ✗ There may be a misperception that using antimicrobial cleaning equipment and utensils makes them 'self-cleaning', leading to reduced cleaning and maintenance practices.
- ✗ Antimicrobial silver has no effect on foreign bodies, pests, microbial toxins or allergens.
- ✗ Increased industrial use of silver could affect our ecosystem. Antimicrobial silver does not distinguish between good and bad microbes.

References:

1. International Standard Organisation (ISO). ISO 22196:2011: Measurement of antibacterial activity on plastics and other non-porous surfaces.

Summary

The effect of antimicrobial silver on microbes on a dirty surface is minimal.

Silver's antimicrobial action on a clean surface is good, if given sufficient time, moisture and temperature to work.

Antimicrobial silver has no effect on the removal of the food debris, foreign bodies, pests, microbial toxins or allergens.

Antimicrobial silver affects good and bad microbes and may effect our ecosystem.

The stages of brush decontamination

This infographic has been developed to show how the different stages of cleaning, disinfection and use of antimicrobial silver affect the level of contamination on a cleaning brush.

