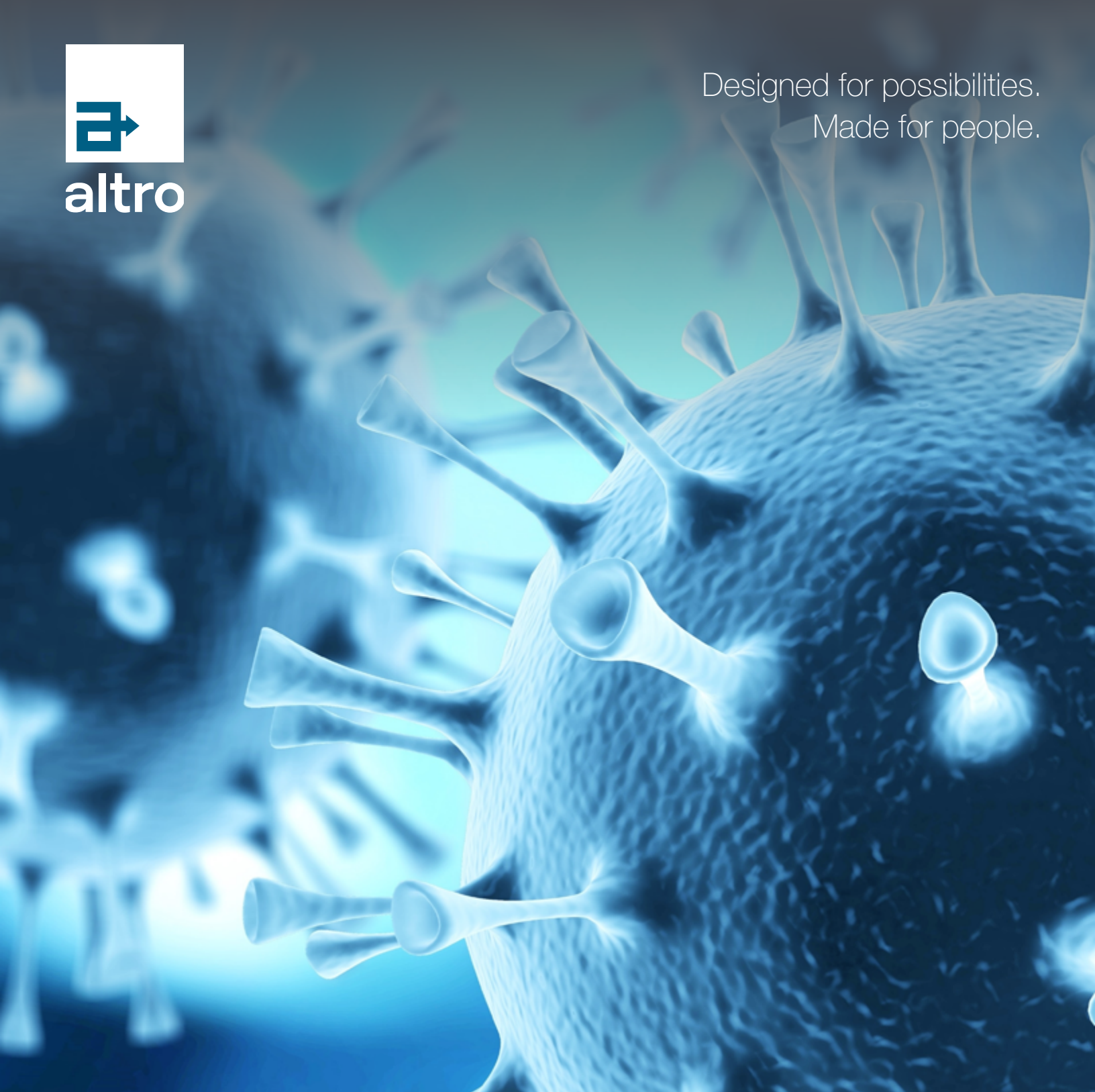


altro

Designed for possibilities.
Made for people.



Separating fact from fiction: biocides

Your guide to separating manufacturer myth from scientific facts

Separating fact from fiction: biocide claims

“There is no evidence that the addition of antimicrobials to building products lowers the rate of infection, or that they lead to a healthier population. Despite this fact, there is an increase in advertising and marketing of antimicrobial and disinfectant products.”

“Antimicrobials are not intended to be added to building products for infection control.”

“Products with added “antimicrobial” can cause harm. Some antimicrobial substances can cause direct, physical harm to human health.”

Healthy Building Network, May 2020



“Interior finishes/fixtures and fittings

“Although a range of antimicrobial-infused products (such as surface coatings, paints and curtains) are available, there is, at the moment, no definitive data to support their efficacy in reducing HAIs.”

Department of Health



That’s quite sobering, isn’t it?

There are indeed a lot of claims made around biocides, bacteria and viruses. Are you confused and don’t know what to believe or who to trust?

Some manufacturers are deliberately using terminology to confuse, as they try to substantiate claims – don’t fall for it!

Let’s start by getting some things clear. What does it all mean? Know your definitions!

Antimicrobial - an agent that kills microorganisms or stops their growth

Microorganism - a microscopic organism, especially bacteria or viruses

Biocide - a chemical that destroys or inhibits the growth or activity of living organisms

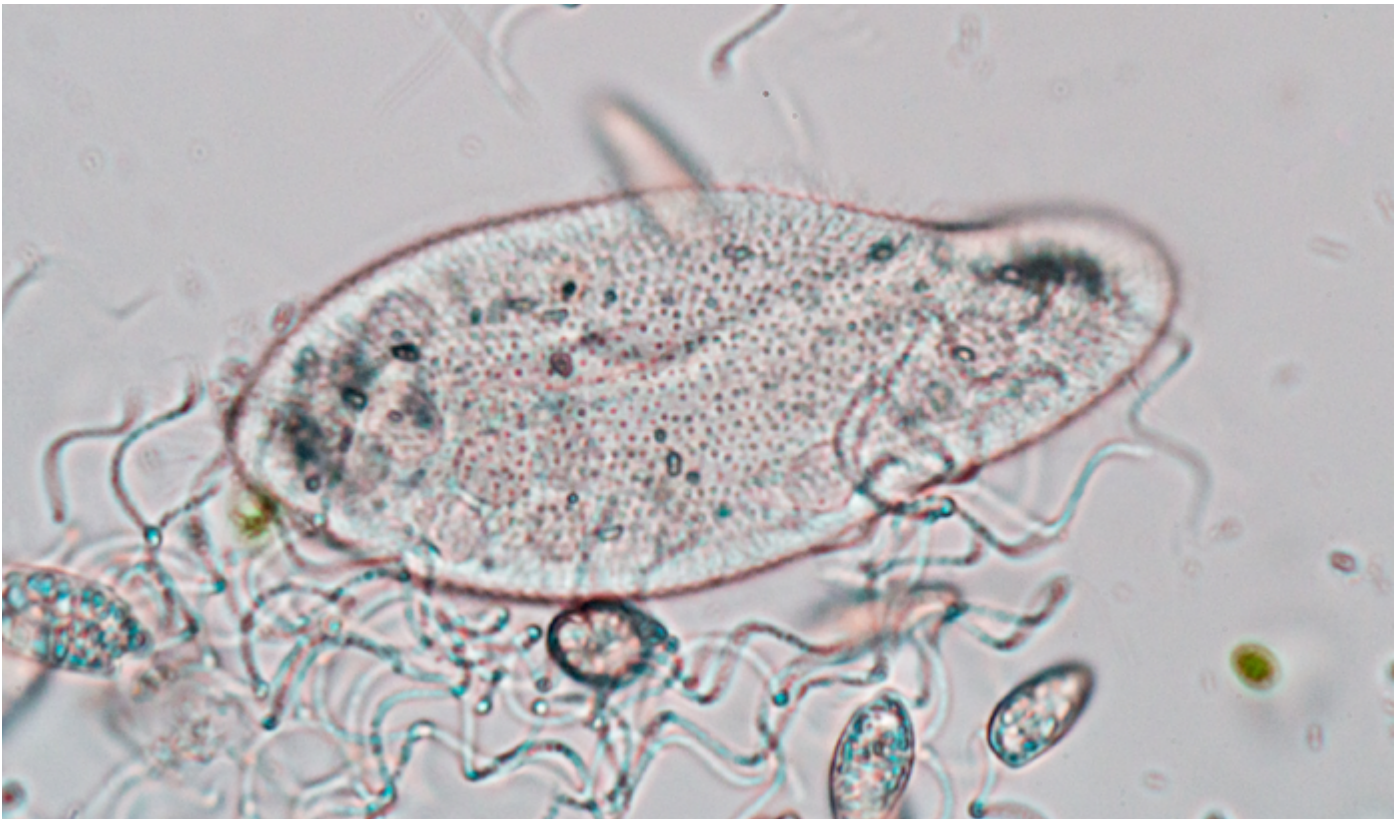
Bacteriostat - a substance which kills bacteria

Antibiotic - antimicrobial substance active against bacteria

Antibacteria - tending to prevent the growth or spread of bacteria

Antiviral - compounds specifically made to inhibit the growth and spread of viruses





Know your bacteria from your viruses. They are not the same.

- Antimicrobial does not automatically mean antiviral.
- While the term “antimicrobial” includes viruses, products claiming to have antimicrobial properties are not always antiviral. That means they won’t automatically protect you against viruses.
- “Antimicrobial” is being used as a marketing buzzword by some manufacturers. Most antimicrobial additives to hygienic wall cladding are bacteriostats, which means they kill bacteria, not viruses.
- There are currently no antimicrobial technologies in floors and walls that are proven to kill COVID-19.

Misleading manufacturer myths - challenge them!

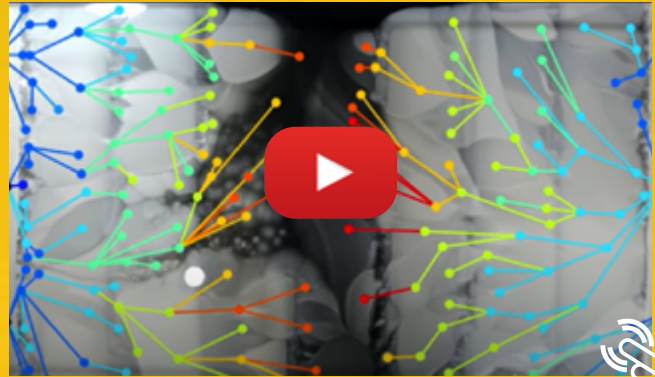
- If a manufacturer claims that their products include additives that can disable viruses, specifically COVID-19, ask for proof: request certified test results. These claims are often intentionally misleading and deceiving.
- Some companies even use results for feline coronavirus, which only affects cats, to imply protection against COVID-19.
- Some companies talk about the performance of the chemicals or additives in their products which kill bacteria and share results from the supplier who makes those additives. Seems reasonable? No it’s not. These have often only been tested before they are added to the PVC product mix. The suppliers even admit that there is no evidence at the moment that the chemicals or additives perform in the same way when added to products or surfaces. What you need to see is the performance of that additive in the product you are buying – don’t settle for anything less, you could be putting people at risk if you do!

It's the 0.1% of all known germs you should worry about...

- We all remember the claims about 99.9% of known germs being killed by strong cleaning products. Scientists now say that it is the remaining 0.1% of bacteria that is the long-term risk factor
- Bacteria are good at evolving to overcome biocides and the World Health Organisation has identified antimicrobial resistance as a major risk to human life as antibiotics fail to be effective

The rise of the “superbug” – it’s a mutant success story

- Superbugs form where biocides do not entirely destroy the more ‘competitive’ bacteria (often those associated with serious health problems).
- If you don’t stringently follow hygiene processes, they can remain in contact with the biocide over an extended period of time.
- This close contact between the bacteria and the chemical, designed to kill it, creates an ideal environment in which the bacteria can mutate and develop antibiotic resistance, producing more dangerous, antibiotic-resistant bacteria.
- Not convinced? Scientists at Harvard Medical School demonstrate this very vividly in a two-minute video where they show how fast bacteria evolve to become resistant to even the strongest antibiotics.



The Evolution of Bacteria on a “Mega-Plate” Petri Dish
Kishony Lab - Harvard Medical School

- “Ultimately, in a dramatic demonstration of acquired drug resistance, bacteria spread to the highest drug concentration. In the span of 10 days, bacteria produced mutant strains capable of surviving a dose of the antibiotic trimethoprim 1,000 times higher than the one that killed their progenitors.”

Specifying bacteriostats? Superbugs will love you for it!

- You could be helping to accelerate the evolution and mutation of particular strains of bacteria if you increase the use of antibacterial products such as antibiotics and bacteriostats.
- These in turn could accelerate the development of superbugs.

Some people believe that silver will protect them. Scientists don't!

- The regulators in this area are Biocidal Products Committee (BPC) of the European Chemical Agency (ECHA). They have been looking at the biocidal claims of silver compounds in a range of products.
- In October 2018 they decided not to approve the use of silver compounds in disinfectant products as it was not proven that biocides had any antibacterial effect where surfaces are dry.
- Flooring and wall coverings are typically employed in environments that are predominantly dry, particularly in healthcare sites. So there is every reason to believe that the ECHA BPC will reach a similar non-approval decision regarding the use of biocides in floor and wall coverings.

How harmful is silver really? Have a read...

- "In humans, exposure to silver can harm liver cells, skin and lungs." - The Conversation



[Click to read article](#)



We're not just harming ourselves with antimicrobials, we're damaging the environment too!

Perkins and Will, international designers and the Healthy Building Network report that



[Click to read Perkins and Will article](#)

- Antimicrobial additives have been shown to leach out of materials during use, entering drains and water treatment facilities.
- As wastewater treatment sludge is sometimes spread as crop fertilizer, contamination of the surrounding environment becomes a risk, with unknown ecological implications.
- Certain antimicrobials, such as nano silver, are considered toxic to humans and entire aquatic ecosystems.
- Current antimicrobials are also considered worst-in-class for pollution, bioaccumulation in the food chain, and for harm to those who work with the products in factories.





Why is it dangerous to rely on biocides?

- Relying on the infection control capabilities of products containing biocides can lead to complacency, in the mistaken belief that the biocide will replace the need for effective cleaning, with the result that cleaning regimes are relaxed in areas where hygiene is critical.
- At the outset of COVID-19 the WHO advice was for people to wash their hands to prevent the spread of infection. This is not a new message.

The WHO have been promoting good hand hygiene as the most effective way to limit the spread of diseases such as MRSA and E Coli.

- The U.S. Centers for Disease Control and Prevention (CDC) say human health is best ensured through proper cleaning practices, such as wiping down surfaces with soap and water before treating them with a disinfectant.

So are biocides really needed in vinyl floors and walls?

- Vinyl is naturally hygienic – no additives are required.
- Vinyl is inert and does not encourage the growth of bacteria in the way some natural materials do.
- Vinyl is used as a standard for the medical industry because of its inherent hygienic properties; 25% of all medical products containing plastic are made with vinyl.
- Used in floors and walls, vinyl is highly durable, non-porous, non-shedding and has very high impact resistance; preventing the cracks and chipping that can trap bacteria.

Listening to the scientists – why we removed biocides from our products

- Seven years ago, for health and performance reasons, we removed biocides from our floors, walls and doors. As a responsible manufacturer, we based this decision on science and the health trends we were seeing around the world.
- We strongly believe that the long-term overuse of these chemicals contributes to long-lasting health and environmental problems.
- We maintain that the hygienic design of our materials, the ingredients from which they are made, and the system they provide is sufficient in combating viruses and other microorganisms when combined with proper cleaning and disinfecting.
- Antimicrobial technology should be used sparingly. Best practice has been to limit the use of these additives to high risk surfaces like countertops and furniture.

When was the last time you ran your hand over your floor or wall?

- Recently? We thought not. We believe it's unnecessary to include biocides in low risk surfaces like these and their overuse can lead to an increase in the spread of resistant pathogens as well as the overall risk of infection.
- As the market leaders and inventors of hygienic wall cladding, over 35 years ago in the UK, Altro have the knowledge and expertise to guide our customers through from specification to installation and beyond. It is crucial that with every project where you are considering using a hygienic finish, you know the full facts from a trusted and experienced manufacturer.

How can I trust Altro products' hygiene credentials?

- Proven hygienic system. Guaranteed.
- Our floors and walls are P22 NHS Approved; this means their hygienic credentials meet the strictest requirements for infection control and critical care.
- Altro products are steam cleanable with high chemical resistance for disinfecting floors and walls (tested with up to 1,312 chemicals for proven performance).
- Good hygiene means a system designed for compatibility: floors, walls and doors. When used together, they provide a robust, hard-wearing surface that resists stains, odours and chemicals. We have commissioned multiple tests of our products to prove that they do not promote bacterial growth and accumulation in addition to resisting mould and fungal pathogens. These tests are available upon request.
- Our tests showed that there is no 'short cut' of adding any chemicals to our products that replaces the recommended cleaning guidelines.



Our sanitizing and disinfecting statement

Due to the recent COVID-19 virus pandemic and the need to effectively combat its spread, the following information is being provided for guidance of cleaning Altro floor and wall products.

There are many disinfectants that are effective with eliminating the COVID-19 (Coronavirus). However, it is important to note that in order for disinfectants to be fully effective on surfaces, a thorough cleaning is essential (from CDC Guidelines). The processes of cleaning and disinfecting are different and equally important.

Disinfection is the process of eliminating or reducing harmful microorganisms from inanimate objects and surfaces. To effectively sanitize or disinfect an area, you must remove dirt and debris from the surface first. Sanitizers and disinfectants cannot effectively penetrate through dirt and debris to work properly. For guidance on cleaning Altro flooring, see our cleaning and maintenance guide on our website.

Please note

- Sanitizer will reduce and lower the number of bacteria on a surface.
- Disinfectant will kill specified fungi, bacteria, and viruses (these disinfectant chemicals must be EPA registered for the specified target).
- Disinfectant chemical selection will be part of the facilities Infection Control and Environmental Services plan and will not, nor can they be, specified by a flooring manufacturer.
- There are many disinfectants that are proven to kill COVID-19. Here are a couple common agents with which we have experience and know that if used properly have been shown not to cause damage to our floors and walls.

Recommended products

Professional Lysol Disinfectant Spray (EPA Registration Number: 777-99) is easy to use and can be sprayed on hard-to-wipe surfaces. For mopping and cleaning water.

Virex II 256 by Diversey Inc. is approved by the CDC and has been used on our floors in the past without damage.

All disinfectant products if not used per instructions and recommendations may in fact damage a floor and impact both individual and environmental health.

For a full list of approved disinfectants for use against COVID-19, visit the CDC website.



Detergent or disinfectant?

Cleaning with detergent and water is usually adequate for surfaces such as floors, and thorough cleaning renders most items free of infection risk. Disinfectants should only be used on environmental surfaces where potential risks are identified (e.g., decontamination of potentially infectious spills, isolation rooms or ambulances). When patient is discharged or when isolation is discontinued, areas should be cleaned thoroughly and the surfaces wiped over with the appropriate disinfectant.

For more CDC approved information please visit the CDC website.



Please note that Altro is not the expert in disinfecting or chemicals needed or used for these processes, and we cannot assume responsibility for any damage that may be caused to any Altro floor or wall product by the use of disinfecting chemicals or disinfecting cleaning procedures. All assurances of a product's effectiveness and suitability must come from the product/disinfectant manufacturer.



Cleaning

Proper cleaning is essential to keeping a facility hygienic no matter which interior finishes are selected. We highly recommend that a cleaning and sanitizing program is created specific to your facility that utilizes the resources and products as recommend by individual manufacturers.

Our cleaning, sanitizing and microbial guidelines are available at altro.com/cleaning

Samples

Altro recommends that color selection is never made through printed or digital materials. Please order a physical sample for color and pattern approval before placing your order with us.

Order samples 24 hours a day at altro.com/samples or find us on Material Bank.



Follow us



📞 **USA** 800 377 5597

📞 **CANADA** 800 565 4658

✉️ support@altrofloors.com

🌐 www.altro.com

Content was correct at time of print. Altro reserves the right to change any detail. Please consult www.altro.com or your local Sales Representative for the latest product information.