

# CORIAN® SOLID SURFACE ANTIMICROBIALS - FREQUENTLY ASKED QUESTIONS

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## **What are antimicrobials?**

Antimicrobials are substances that are designed to be toxic to certain organisms including bacteria, viruses, and fungi. They are commonly used in various materials to prevent mildew growth or the formation of odours from microbial activity (such as in some fabrics, paints, or upholstery). However, they are also used to kill or deactivate microbes (germs) in order to prevent disease spread.

## **Disinfecting sprays and wipes, hand sanitisers, and antibacterial hand soaps are used to kill germs. Do these products contain antimicrobials?**

Yes. Any product that promises to disinfect, sterilise, or kill germs, contains an antimicrobial substance.

## **How do i know that these types of products are effective?**

The Biocidal Products Regulation (BPR, Regulation (EU) 528/2012) classifies antimicrobials as pesticides and therefore requires efficacy testing and registration of all materials that contain antimicrobials whenever a human health benefit claim is made.<sup>1</sup>

## **Can disinfecting sprays be used on Corian® Solid Surface and are they effective in killing germs?**

Yes.<sup>2</sup> When used per manufacturer instructions, most common disinfecting solutions are safe to use and highly effective.<sup>3</sup>

## **Is Corian® Solid Surface antimicrobial?**

No. Corian® Solid Surface doesn't contain antimicrobial substances. Rather, Corian® Solid Surface is a hard, non-porous material which doesn't promote the growth of microbes and allows for easy and effective cleaning and disinfection, using a variety of commercially available cleaning products.

## Can a surface with embedded antimicrobials be effective to fight germs?

There are numerous products on the market that have embedded antimicrobials and make germ killing claims, including: fabrics, carpeting, worktops, counters, plumbing fixtures, and door handles.

While intuitively these products seem like they would be effective, there is a lack of evidence that they actually improve human health and there are several concerns that have not been adequately addressed.

Here is a summary of key points:

1. There is virtually no evidence indicating that materials with embedded antimicrobial agents are effective in improving human health.<sup>4</sup>
2. There is growing concern over the creation of resistant microbes from using products with embedded antimicrobials.<sup>5</sup>
3. Further, there is concern over antimicrobials leaching out of or otherwise being displaced from materials,<sup>6</sup> contaminating the surrounding environment, and potentially causing unintended health effects.
4. There is concern that using products with embedded antimicrobials in the built environment will drive complacency amongst workers who are in charge of properly cleaning and disinfecting surfaces.<sup>7</sup>
5. Kaiser-Permanente, a leading healthcare provider in the United States, has banned the use of 15 specific antimicrobials in construction materials for their hospitals/health care facilities,<sup>8</sup> to address concerns about mounting exposure to chemicals toxic to humans and the environment as well as the threat of drug-resistant bacteria.
6. Many products with embedded antimicrobials are only effective against bacteria and not viruses.
7. Products with antimicrobials that make human health claims need to be authorised in accordance with the Biocidal Products Directive (Directive 98/8/EC) or the Biocidal Products Regulation (Regulation (EU) No 528/2012) by each EU Member State or at the European Union level.
8. Routine and proper cleaning and disinfection of surfaces is among the strongest measures against microbial spread and Health Care Acquired Infections (HAIs).<sup>9, 10, 11</sup>

## Can a photocatalytic material kill microbes?

A photocatalytic material has the potential to eliminate microbes.

What is important to understand is that this functionality can only work if there is enough direct UV-light. However, in an interior environment, there is very little to no UV light.

In addition, these processes are always tested under perfect laboratory conditions and over a long period of time like 24h.

ISO Standards only provide testing methods, without evidence of proven photocatalytic activity nor the minimum levels or threshold to achieve it.

Therefore a claim that a material is ISO certified according to photocatalytic standards is not valid.

## References

- <sup>1</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0528>
- <sup>2</sup> [www.corian.uk/IMG/pdf/k-22257\\_emea\\_healthcare\\_disinfectants.pdf](http://www.corian.uk/IMG/pdf/k-22257_emea_healthcare_disinfectants.pdf)
- <sup>3</sup> *Guidelines for Environmental Infection Control in Health-Care Facilities. 2003*, CDC, (updated July 2019). <https://www.cdc.gov/infectioncontrol/guidelines/environmental/index.html>
- <sup>4</sup> *Current views on health care design and construction: Practical implications for safer, cleaner environments.* Bartley, Judene M. et al. *Am J Infect Control* 2010;38:S1-12.
- <sup>5</sup> *Healthy Environments: Understanding Antimicrobial Ingredients in Building Materials.* Perkins+Will; March 2017. [http://assets.ctfassets.net/t0qcl9kymnlul/3JYr0nH8G4iU8QkEAQ8qoq/48c9b83efd49ccc28f667900\\_7679fc4/Antimicrobial\\_WhitePaper\\_PerkinsWill.pdf](http://assets.ctfassets.net/t0qcl9kymnlul/3JYr0nH8G4iU8QkEAQ8qoq/48c9b83efd49ccc28f667900_7679fc4/Antimicrobial_WhitePaper_PerkinsWill.pdf)
- <sup>6</sup> *Nanoparticle Released from Consumer Products: Flooring Nanocoatings and Interior Nanopaints.* Li Piin Sung, Tinh Nguyen, Andrew K. Persily; NIST, July 21, 2014. [https://www.nist.gov/publications/nanoparticle-released-consumer-products-flooring-nanocoatings-and-interior-nanopaints?pub\\_id=914979](https://www.nist.gov/publications/nanoparticle-released-consumer-products-flooring-nanocoatings-and-interior-nanopaints?pub_id=914979)
- <sup>7</sup> *Antimicrobials in Hospital Furnishings: Do They Help Reduce Healthcare-Associated Infections?* Schettler, Ted; Health Care Without Harm. Accessed March 30, 2016. [https://nobarm-uscanada.org/sites/default/files/documents-files/3854/Antimicrobials%20Report%202016\\_1.pdf](https://nobarm-uscanada.org/sites/default/files/documents-files/3854/Antimicrobials%20Report%202016_1.pdf)
- <sup>8</sup> *Banning use of antimicrobial agents for infection control.* Kaiser Permanente; December 11, 2015. <https://about.kaiserpermanente.org/total-health/health-topics/kaiser-permanente-rejects-antimicrobials-for-infection-control>
- <sup>9</sup> *Guideline for disinfection and sterilization in healthcare facilities.* Rutala W, Weber; D HICPAC. 2008. Accessed Aug 18, 2015. [http://www.cdc.gov/hicpac/pdf/guidelines/Disinfection\\_Nov\\_2008.pdf](http://www.cdc.gov/hicpac/pdf/guidelines/Disinfection_Nov_2008.pdf)
- <sup>10</sup> *2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.* Jane D. Siegel, MD; Emily Rhinehart, RN MPH CIC; Marguerite Jackson, PhD; Linda Chiarello, RN MS; the Healthcare Infection Control Practices Advisory Committee. Last update: July 2019. <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>
- <sup>11</sup> *CDC: Guidance for Cleaning and Disinfecting.* May 2020. <https://www.cdc.gov/coronavirus/2019-ncov/community/cleaning-disinfecting-decision-tool.html>

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