

## FAQ

11 February 2025

### **Use of antimicrobial products in private households? Only in exceptional cases**

→ Changes compared to the version dated 22 May 2014: The text has been updated throughout.

In addition to disinfectants - commonly used for surface and hand disinfection - cleaning agents and detergents containing biocidal ingredients are also available for private households. Cleaning agents with proven antimicrobial activity fall into the category of disinfectants and are therefore subject to European legislation on biocidal products.

Antimicrobial products are often advertised as eliminating harmful microorganisms. However, their health benefits have not been proven, while they may pose health risks.

According to the German Federal Institute for Risk Assessment (BfR), the use of disinfectants in private households, including cleaning agents with antimicrobial properties, should be limited to exceptional cases. Such exceptions include medically justified situations where disinfectants are used following medical advice. For infection prevention in private households, it is usually sufficient to follow basic hygiene practices using cleaning agents and detergents without antimicrobial properties.

#### **What are antimicrobial products?**

Cleaning agents and detergents advertised as having antimicrobial properties are commercially available for use in private households.

Products with antimicrobial properties reduce the ability of microorganisms to multiply and/or to lower their infectivity. In addition to disinfectants, this category also includes antibiotics and preservatives.

### **What are disinfectants?**

Disinfectants reduce the number of microorganisms that can have harmful effects on humans, animals, or materials. They are used to prevent the transmission of pathogens.

Household cleaners or detergents with proven antimicrobial activity also qualify as disinfectants and are subject to European legislation on biocidal products.

### **How do disinfectants work?**

The effectiveness of a disinfectant depends on its active ingredients, their concentration, and the application conditions, such as exposure time and temperature. Many disinfectants are only effective against specific microorganisms. If disinfectants or cleaning agents with antimicrobial properties are used in private households, they should be applied according to the instructions of medical professionals (e. g. a doctor) or the manufacturer.

### **Are disinfectants necessary to prevent infectious diseases in private households?**

Microorganisms are present everywhere in the environment and do not necessarily cause disease. In fact, many microorganisms provide protective functions or support human health. For example, microorganisms on human skin contribute to the skin's natural barrier function, making it harder for pathogens to colonise. In the intestine, microorganisms support digestion, among other functions.

To minimize health risks in the household, it is generally sufficient to follow basic household hygiene practices. This includes personal hygiene, regular household cleaning, and the hygienic preparation and storage of food. Usually, the use of disinfectants is not necessary.

### **Are there situations where disinfectants are useful in private households?**

In exceptional cases, using disinfectants in private households may be reasonable and necessary, for example, to prevent the transmission of pathogens and to protect particularly vulnerable household members. In such cases, selected disinfectants should be used after consulting a doctor. Another exception is the use of disinfectants in private swimming pools to prevent the growth of harmful microorganisms.

### **What health risks are associated with disinfectants in the household?**

Accidents involving cleaning agents and disinfectants can cause health problems. During the COVID-19 pandemic, for example, the increased use of antimicrobial products in private households led to a significant rise in emergency poison calls. Many of the cases involved children under six years who had been exposed to disinfectants (<https://doi.org/10.3238/arztebl.m2021.0185>).

The severity of poisoning depends on the type of disinfectant, its chemical composition, and the length of exposure. Depending on the ingredients, chemical burns can occur particularly affecting the eyes and skin. If ingested, these products can cause chemical burns in the gastrointestinal tract. In addition, some products may have sensitising properties, meaning they can trigger allergies.

Consumers should always ensure that disinfectants are used properly and stored safely. Instructions on product packaging and information leaflets must be followed carefully.

### **Do disinfectants contribute to the development of resistance in pathogens?**

The use of disinfectants in private households may contribute to the development of resistance in (pathogenic) microorganisms. In such cases, the disinfectants can become ineffective. This possibility must be assessed on a case-by-case basis.

Microorganisms can develop resistance to biocidal substances when regularly exposed to low, non-lethal concentrations. This resistance gives them a survival advantage over non-resistant microorganisms. Bacteria and yeasts can also transfer genetic information (and thus resistance) to other microorganisms.

In addition, some active substances in disinfectants may promote the development of antibiotic-resistant microorganisms, even if the microorganisms are not directly resistant to the active substance of the disinfectant itself.

### **Do disinfectants require approval before being marketed?**

Disinfectants are legally classified as biocidal products. This means that their active biocidal substances must be assessed and approved at the European level under the Biocidal Products Regulation (EU) No. 528/2012. Each biocidal product must then receive national approval. During the approval process, the product - including its active substances and additives - is subject to a risk assessment based on its intended use.

In Germany, the Federal Office for Chemicals, part of the Federal Institute for Occupational Safety and Health (BAuA), is responsible for approving disinfectants. The BfR evaluates the risks for consumers, the general public, pets and livestock.

Transitional regulations apply to disinfectants containing active substances used as biocides before May 14, 2000. Until December 31, 2030, these disinfectants may be marketed without approval until their active substances have been finally assessed and approved. This currently applies to most chemical disinfectants.

### **What does the BfR recommend regarding disinfectants in private households?**

There is no general hygienic benefit to using disinfectants in private households. This applies in particular to household cleaners and detergents with a proven antimicrobial activity. On the contrary, these products can pose health risks, such as poisoning or allergic reactions, and may contribute to the development of resistant microorganisms.

Therefore, disinfectants should only be used in private households in exceptional cases. Exceptions are, in particular, medically justified situations in which the products are used following medical advice.

**Further information on the BfR website on hygiene in private households**

Correct cooling: Frequently asked questions on refrigerating foods in private households

[https://www.bfr.bund.de/en/correct\\_cooling\\_frequently\\_asked\\_questions\\_on\\_refrigerating\\_foods\\_in\\_private\\_households-310021.html](https://www.bfr.bund.de/en/correct_cooling_frequently_asked_questions_on_refrigerating_foods_in_private_households-310021.html)

Topic page kitchen hygiene

[https://www.bfr.bund.de/en/kitchen\\_hygiene-194171.html](https://www.bfr.bund.de/en/kitchen_hygiene-194171.html)

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Publisher:

**German Federal Institute for Risk Assessment**

Max-Dohrn-Straße 8-10

10589 Berlin, Germany

T +49 30 18412-0

F +49 30 18412-99099

[bfr@bfr.bund.de](mailto:bfr@bfr.bund.de)

[bfr.bund.de/en](https://bfr.bund.de/en)

Institution under public law

Represented by the president Professor Dr Dr Dr h. c. Andreas Hensel

Supervisory Authority: Federal Ministry of Food and Agriculture

VAT ID No. DE 165 893 448

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