

Frequently Asked Questions

Microbiology

Question:

What is an antimicrobial treatment?

Answer:

An antimicrobial treatment is applied to a fabric, plastic, wood, cement or other substance to make it resistant to the growth of the bacteria and fungi that cause stains, odours and rot.

Question:

What is the difference between the terms antimicrobial, antibacterial and antifungal?

Answer:

Antimicrobial is a general term that refers to an agent or treatment which has either antibacterial or antifungal properties or both. **Antibacterial** specifically refers to an agent or treatment which prevents the growth of bacteria. **Antifungal** specifically refers to an agent or treatment which prevents the growth of fungi.

Question:

What are bacteria?

Answer:

Bacteria are simple unicellular organisms which occur in all parts of the environment. Bacteria grow very quickly under warm, moist conditions. Some bacteria cause spoilage and odors, others cause infections and health issues. Ultra-Fresh is designed to inhibit the bacteria that cause spoilage, odours and stains.

Question:

What are fungi?

Answer:

Fungi are single or multi-cellular organisms that obtain their nutrients from the breakdown of organic material, such as wood or even fabric. Fungi can cause product degradation (rotting), as well as create stains and odours. Yeasts, molds, mildew and mushrooms are all different types of fungi.

Question:

What are dust mites?

Answer:

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Dust mites are microscopic creatures, related to spiders, which thrive in the home environment, in items such as bedding, furniture, blinds, curtains and carpets. They commonly feed on flakes of shed human skin. [Click here for more information on dust mites.](#)

Question:

Why do we want to eliminate dust mites?

Answer:

Dust mite excretions have been recognized as a significant cause of allergies and asthma. The object of Ultra-Fresh is to create an inhospitable environment for the mite in mattresses, furniture and other treated products. Reducing the number of mites can be part of a program of asthma and allergy control. [Click here for more information on dust mites.](#)

Question:

Does Ultra-Fresh protect against viruses?

Answer:

Usually not. Viruses are not living organisms but are strings of protein which can attack living cells.

Question:

Why would you want an antimicrobial treatment?

Answer:

- To protect products that are exposed to severe environments which can encourage the growth of bacteria and fungi. For example; exterior textiles used for tents and awnings.
- To treat consumer goods such as clothing to control bacteria that can cause perspiration odors and staining. For example; socks, underwear and active wear.
- As a marketing benefit which allows our customers to differentiate their products from others on the market.
- Against dust mites as part of a program of allergy and asthma control.

Treating textiles and polymers

Question:

How do you know if Ultra-Fresh is present on the finished article?

Answer:

Look for the Ultra-Fresh brand on the packaging. Ultra-Fresh is invisible on treated articles. This is important so as not to change the desired appearance of the article. Demonstrating

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antimicrobial properties requires laboratory tests. Products that bear the Ultra-Fresh brand have been tested using internationally recognized methods and have been proven to have the antimicrobial performance that is specified on the label. Products that bear the Ultra-Fresh brand are retested on a regular basis to guarantee their antimicrobial performance.

Question:

Does Ultra-Fresh have an odour?

Answer:

No. However some new textiles do have odours that are caused by the combination of treatments that are applied to them. These odors usually disappear after 1 or 2 washes.

Question:

What types of products can I treat with Ultra-Fresh?

Answer:

Ultra-Fresh is a whole line of antimicrobial treatments that have been formulated to be applied to a wide range of products, mostly in the areas of textile and polymers. [Click here to see some examples of the types of product that our customers treat.](#)

Question:

How can I buy Ultra-Fresh?

Answer:

Ultra-Fresh is sold to industrial users either directly by Thomson Research Associates or from our [worldwide network of distributors.](#)

Question:

What does Ultra-Fresh cost?

Answer:

The cost of using Ultra-Fresh will vary depending on the type of application and the Ultra-Fresh product used. In addition, the cost would be affected by specific customer requirements for performance and durability. It is not possible to give a general cost of the Ultra-Fresh treatment. After discussing the customer's requirements and recommending which Ultra-Fresh product to use, TRA or your local distributor would then be able to determine the cost of the treatment.

Question:

How can I apply the Ultra-Fresh treatment?

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Answer:

Ultra-Fresh is applied using normal manufacturing processes. For textiles this could be exhaust, pad (foulard), spraying, coating or foaming. In polymers it could be coating, extrusion, injection molding etc.

Question:

Do I have to buy special equipment to apply Ultra-Fresh?

Answer:

Ultra-Fresh is applied on standard equipment. Special equipment is usually not necessary.

Question:

Will Ultra-Fresh affect the characteristics of my product (ie. colour fastness, crocking, yellowing, reaction time, cure time, stability etc.)

Answer:

Ultra-Fresh has been formulated to have little or no effect on the other properties of a treated product. However we do recommend that laboratory or plant trials be run before a manufacturer goes into full production.

Question:

Can Ultra-Fresh be used along with other treatments (ie. fire-retardants, dyes, softeners, wicking agents etc.)

Answer:

Most Ultra-Fresh treatments are non-ionic and are compatible with softeners and other auxiliaries. However, as there is a lot of variation in the types of auxiliaries that are available around the world, we do recommend running compatibility tests before going into full production.

Question:

How long does the Ultra-Fresh treatment last?

Answer:

TRA works closely with manufacturers to insure that the correct treatment, correct procedures and correct level of Ultra-Fresh are applied to the article so that it will last for the useful life of that article.

Safety

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Question:

Are there any health concerns when using or selling Ultra-Fresh?

Answer:

Ultra-Fresh products are formulated to be very safe for workers who handle the concentrate products and for consumers who use the finished articles.

All Ultra-Fresh products are registered with the U.S. EPA. A registration is only granted by the EPA after large amounts of chemical and toxicological information and environmental fate data have been submitted and reviewed. The EPA requires this information as it has a mandate to protect the U.S. public and the environment.

TRA provides manufacturers with Material Safety Data Sheets (MSDS) on our products which contain detailed amount of health and safety information to assist our customers in establishing the correct procedures for the use of Ultra-Fresh. Always consult the MSDS before using any chemical.

MSDS are available from TRA or your local distributor.

Question:

Are there any environmental concerns when using or selling Ultra-Fresh?

Answer:

All Ultra-Fresh products are registered with the U.S. EPA. A registration is only granted by the EPA after large amounts of chemical and toxicological information and environmental fate data have been submitted and reviewed. The EPA requires this information as it has a mandate to protect the U.S. public and the environment.

The Material Safety Data Sheet gives all of the information required for the correct handling and disposal of any Ultra-Fresh product. MSDS are available from TRA or your local distributor.

Question:

What about antibiotic resistance?

Answer:

Antibiotics and antibacterials are similar in that they both work by inhibiting the growth of bacteria. However, they differ in their modes of action and in their intended uses.

Antibiotics are used in closed systems (the body), and are designed to be used in high levels for a short term duration (ie. during the period where a body is infected with bacteria). Incorrect use of antibiotics where they have been used for long periods at low levels has led to antibiotic resistance in some cases.

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Antibacterials, on the other hand, are designed to be used at low levels for a long period of time and they are used in an open system (the everyday environment). Being in an open environment, the bacteria are not forced to be in contact with the antimicrobial and therefore are not forced to adapt (develop resistance) or die. In addition, antimicrobials have more than one mode of action, thus confusing the bacteria by not always defending in the same manner.

Ultra-Fresh treatments have been in continuous use since 1955 without leading to antibiotic resistance. Indeed, several labs around the world have tried to locate bacteria that are resistant to antimicrobials by looking in areas with high antimicrobial levels. They have not been successful. Similarly, several labs have also tried to engineer antimicrobial resistant bacteria. This has also not been successful.

General Questions

Question:

Does soap or detergent affect the Ultra-Fresh treatment?

Answer:

Fabrics are protected against microbiological growth even after multiple home launderings. Ultra-Fresh protection will last for the useful life of the garment. However, each washing will abrade the fibres in the fabric, slowly lowering the quality of the garment. As the Ultra-Fresh is bound to the fibres, its effectiveness will also decrease as the fibres are damaged.

Question:

Does bleach affect the Ultra-Fresh treatment?

Answer:

Chlorine bleach has a damaging effect on most fibres and reduces the lifetime of most fabrics. For this reason, it is usually not recommended. For this same reason, the durability of the Ultra-Fresh treatment after chlorine bleach washing will also be reduced. The Ultra-Fresh treatment will still be effective after multiple washings, but the number of washes through which the treatments last may be reduced.

Question:

Does dry cleaning affect the Ultra-Fresh treatment?

Answer:

Testing in the TRA laboratories has shown that dry cleaning has no effect on the Ultra-Fresh treatment.

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Marketing

Question:

Can I use the Ultra-Fresh brand name on my treated products?

Answer:

The Ultra-Fresh brand is available for use free of charge to any user of an Ultra Fresh treatment that has signed an Ultra-Fresh Trademark License Agreement.

Question:

Do I have to use the Ultra-Fresh brand name on my treated products?

Answer:

It is not compulsory for users of Ultra-Fresh to use the Ultra-Fresh brand. However, especially for consumer goods, it is recommended. The use of an international brand is a powerful part of a marketing campaign.

Please note that, while the use of Ultra-Fresh products as an aid in the protection of human health is permitted in many countries around the world, the current Ultra-Fresh registrations in some countries only permit antimicrobial product treatment claims which are related to the protection of the treated article and not to human health.

Ultra-Fresh products are sold globally, but not all the information in this document may apply in all countries. Local legal requirements may limit which Ultra-Fresh products are available, how they may be used and what claims may be made for our products and for treated articles. If you have questions about requirements in your country or in the countries where your treated articles may be sold please contact Thomson Research Associates for assistance. Ultra-Fresh products should be distributed, sold and used only in accordance with government regulations and the specifications on their labels.