**Question:**
What is an antimicrobial treatment?

**Answer:**
An antimicrobial treatment renders a fabric, plastic, wood, cement or other substance 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. Some bacteria cause spoilage and odours, 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. 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:**
Microscopic creatures, related to spiders, which thrive in bedding 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 mites are a normal part of our world. However, their waste products have been recognized as a significant cause of allergies and asthma. Treating items such as mattresses, pillows and carpets with Ultra-Fresh creates an inhospitable environment, allowing people to sleep better and breathe easier. [Click here for more information on dust mites.](#)

**Question:**
Does Ultra-Fresh protect against viruses?

**Answer:**
No. Viruses are made up of protein and are not living organisms. Ultra-Fresh is designed to control microorganisms such as bacteria and fungi.

**Question:**
Why would you want an antimicrobial treatment?

**Answer:**
To keep your clothes, socks, home furnishings, carpets, sports clothing and gear, awnings, backyard deck, kitchen sponges, towels and many other important personal possessions free from odour, degradation and rot.

**Question:**
How can I tell if the Ultra-Fresh treatment is there?

**Answer:**
Look for the Ultra-Fresh logo on the product’s package. Ultra-Fresh is invisible on treated articles. This is important so as not to change the desired appearance of the article. Demonstrating antimicrobial properties requires laboratory tests. Products that bear the Ultra-Fresh brand name 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 name are retested on a regular basis to guarantee their antimicrobial performance.

**Question:**
How can I tell if the Ultra-Fresh is working?

**Answer:**
You can tell the Ultra-Fresh treated article is working by comparing it to an untreated article that
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has undergone the same conditions. An Ultra-Fresh treated sock, for example, will resist developing odours for several consecutive days of use without washing in between. Try comparing that to a regular sock!

**Question:**
Does the Ultra-Fresh treatment have an odour?

**Answer:**
No.

**Question:**
Does the Ultra-Fresh treatment come off onto my skin?

**Answer:**
No. The Ultra-Fresh treatment is bound to the fabric and will not come off onto your skin.

**Question:**
Is Ultra-Fresh safe for my health?

**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.

**Question:**
Is Ultra-Fresh safe for the environment?

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**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 in low levels has led to antibiotic resistance in some cases

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

For more information on this subject, please contact the TRA Regulatory Department at info@ultra-fresh.com

**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.

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 is applied to the article so that it will last for the useful life of that article.

Question: Can I buy a spray version of Ultra-Fresh to apply on to items in my home?

Answer: No. Ultra-Fresh products are formulated to be applied in industrial plants in the manufacturing processes of consumer goods. The Ultra-Fresh treatment is already built into the goods when they are marketed to consumers. Ultra-Fresh products are not available for direct sale to consumers for household use.

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 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.