

There are a number of frequently asked questions relating to detergents and disinfectants commonly used in the Catering and Hospitality industry. This document is intended to provide guidance and answers to the users of this type of product.

## Can I Perform a Single Stage Clean and Disinfection on Food Contact Surfaces?

It is important to distinguish between:-

- 1) General housekeeping cleans performed during the day.
- 2) The main end of day clean down.

Throughout the day there will be a need to clean items and surfaces where it may be sufficient to carry out a single stage clean with an appropriate product. For example; cleaning surfaces with a disinfectant wipe, or using a clean cloth to wipe surfaces sprayed with disinfectant could be regarded as sufficient if the soiling on the surface is light.

For the end of day clean down, or between the preparation of raw and cooked produce, best practice guidelines from the industry and the Food Standards Agency (FSA), is that cleaning and disinfection should be a two stage process.

Detergent Disinfectants / Sanitisers are available and are frequently used. These combine the properties of detergents and disinfectants. Such products can be used to clean surfaces, but should be used a second time to disinfect the surface. To ensure that minute particles of soiling are fully removed, it is recommended that a rinse stage in clean water is conducted between these two operations.

For effective disinfection, it is important consider FSA guidelines and instructions from the disinfectant manufacturer. However, if there is doubt over efficacy in critical areas, a simple swab validation process may be required to demonstrate that a cleaning/disinfection route is robust and adequate.

## Does a Detergent need to pass EN 1276 and/or EN 13697?

A recent FSA guideline recommended that Disinfectants should pass the European recognised efficacy testing methods of EN 1276 and / or EN 13697. These tests are not applicable to Detergents and there is no requirement or recommendation for Detergents to pass any test. However, users should assure themselves that a detergent is safe for use on food contact surfaces and meets the requirements of the European Detergents Directive 648/2004. All Booker detergents (for example **Clean Pro Plus General Purpose Cleaner** and **Clean Pro Plus Heavy Duty Cleaner Degreaser**) meet these requirements.

## Does a Disinfectant need to be labelled with details of the standard it was tested against?

A recent FSA guideline indicates the information on the relevant test standard for the product should be available to the end user either from the product label or from the product supplier. It is not a legal requirement for the products to be labelled with the details. All products in the Clean Pro and Clean Pro Plus brands carry the relevant details on the front labels of each relevant product.

## Does a Disinfectant need to pass EN 1276 and / or EN 13697?

A recent FSA guideline recommended that disinfectants should pass the European recognised efficacy testing methods of EN 1276 and / or EN 13697. The meaning and relevance of these tests is often misunderstood:-

### EN 1276

This test is used to demonstrate the efficacy of a disinfectant against bacteria, such as E.coli. However, Listeria and Salmonella are not included in this test as standard. Users of disinfectants should request data to confirm that these organisms have been screened. Clean Pro Plus products are screened for Listeria and Salmonella efficacy.

### EN 1650

This test is not mentioned by the FSA, it is used to assess the efficacy of a disinfectant against Yeast and Moulds.

The EN 1276 and 1650 tests alone are not sufficient to demonstrate efficacy for use on food contact surfaces, they are merely designed to show that a product has the ability to kill organisms in a test tube. These are known as Phase Two, Step One tests.

### EN 13697

**This is the critical test for disinfectants used on surfaces.** This standard is designed to demonstrate that a disinfectant has the ability to kill Bacteria, Yeasts and Moulds that are attached to a non-porous surface; it therefore is representative of food preparation areas. It is known as a Phase Two Step Two test.

Note:- For applications where Phase Two Step One tests (EN 1276 or EN 1650) are used to support use recommendations without a Phase Two Step Two test (EN 13697), the justification for omitting the Phase Two Step Two test should be given (*ref. EN 13697 2001, Annex E*).

Note: - Listeria and Salmonella are not included in this test as standard. Users of disinfectants should request data to confirm that these organisms have been screened. Clean Pro Plus products are screened for Listeria and Salmonella efficacy.

All of the above tests are conducted against a defined protocol that allows for the use of clean or dirty conditions. Unless otherwise stated by the disinfectant manufacturer, users should assume the test is performed under clean conditions. This means a two stage clean where residual food soiling is removed in the cleaning stage is essential. In the example of an Anti-Bacterial Washing Up Liquid, the appropriate conditions are Dirty, unless this is specified in the product manufacturer's information, the detergent should not be claimed as anti-bacterial.

All of the EN tests described above must be conducted at or below a product's recommended use concentration. It is insufficient to simply say that a product passes EN 1276 and EN 13697 without being able to provide evidence that the test has been performed at (or below) the recommended use concentration. In the case of an Anti-Bacterial Washing Up Liquid, it is not permissible to test the neat product and claim EN 1276 for use strength solutions.

In addition to the above tests, users should satisfy themselves that a disinfectant product complies with the current status of the European Biocidal Products Directive/Regulation (98/8/EEC/(EU) No 528/2012 ). If a supplier cannot provide a statement of compliance the products may not be legal and should not be used. All disinfectants supplied under the Clean Pro Plus branding comply with the current status of this legislation.

### What is the correct contact time of disinfectant with a surface?

All of the tests described above have a standard contact time of five minutes for bacteria and fifteen minutes for yeasts and moulds. Unless the manufacturer's information states otherwise, it must be assumed that this is the minimum contact time. In reality it must be remembered that the EN tests are performed under laboratory conditions, in real life it is sensible to extend these contact times.

Although the EN tests specify a contact time, it is permissible to test at reduced times. If a disinfectant claims to be effective in say, two minutes, then the manufacturer must supply the test data to support this.

**Clean Pro Plus Ready to Use Fast Acting Detergent Disinfectant** has been demonstrated to pass EN 13697 in clean conditions with a contact time of 60 seconds. This product can be used for clean as you go, end of day disinfecting or when switching between raw and cooked produce. **Clean Pro Plus Detergent Disinfectant** is non-toxic and has been demonstrated to be non-tainting when used as instructed. We would recommend food contact surfaces should be wiped with a clean damp cloth before food preparation.

### What is the correct temperature to use a Disinfectant at?

Unless otherwise stated in the manufacturer's data, the EN test protocols define a temperature of 20°C. This is regarded as a sensible test temperature to represent normal ambient conditions. If disinfectant solutions are made up with warm water the test results are still valid, provided that the disinfectant is stable at the elevated temperature. **Clean Pro Plus Detergent Disinfectant** will still work in warm water. Products from other manufacturers may not. For example if the disinfectant solution becomes cloudy in hot water it may have lost its activity.

### Can I get a disinfectant that works immediately?

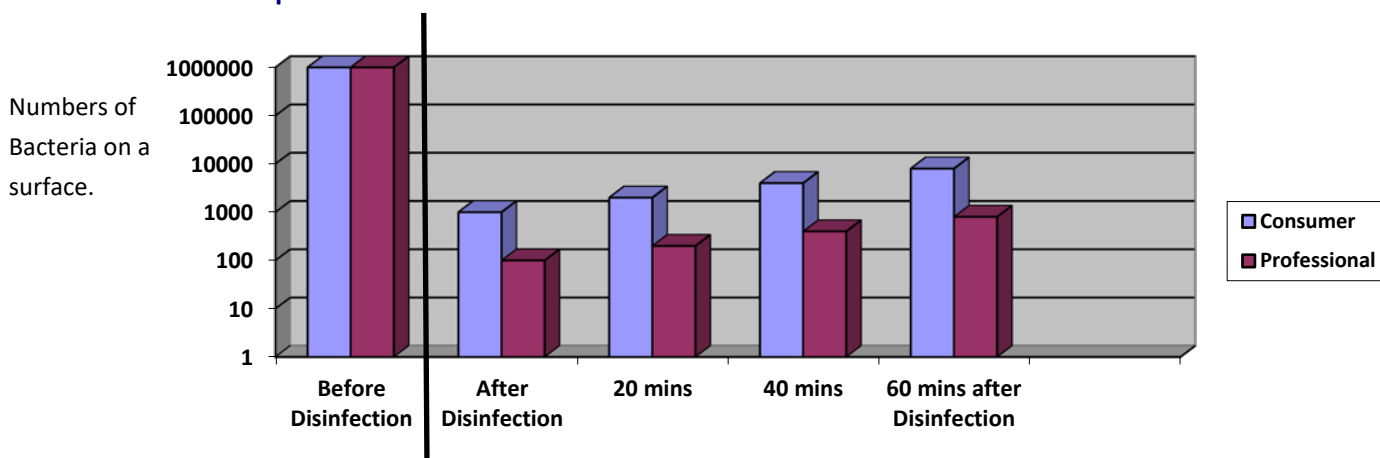
Fast acting biocides tend to be oxidisers such as Peracetic Acid. Products of this type are routinely used in large Food Processing Plants. However, they are dangerous to handle requiring significant Personal Protective Equipment (PPE) and also expensive auto dosing control. This type of product is not suitable for use in the Catering and Hospitality environment.

High strength alcohol wipes may also work fast, but these must be used with great care, they are highly flammable, also when used in confined spaces there is a risk of intoxication and nausea. There is also a problem that staff and customers from the Islamic faith will not use this type of product, or consume food that has come from a surface treated with alcohol.

**What is the benefit of a Professional product over a Domestic Consumer product available on the high street?**

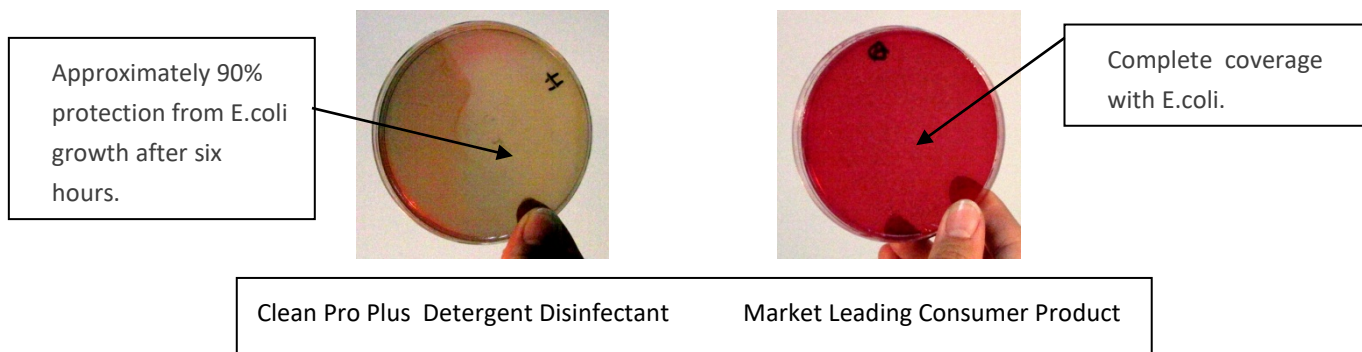
Products designed for Professional use may look similar to products available on the high street. However, the Professional product will generally be stronger. Consumer products may have been tested to the EN standards described above, but this should not be assumed. For example; a consumer product that claims to kill 99.9% of germs would not meet the 99.99% kill requirement of EN 13697. It is important to remember bacteria populations can double approximately every 20 minutes, this means that one hour after disinfecting with a Professional 99.99% kill disinfectant, the number of organisms on a surface will still be less than that found immediately after disinfecting with a lesser consumer product. This is shown graphically in Figure One.

**Figure One**  
**Comparison of Bacterial Protection from a Domestic Consumer and Professional Product**



An alternative way of comparing the efficacy of professional and consumer products, is to apply the disinfectants at recommended use strength to agar plates inoculated with bacteria, then, incubate the plates and observe the number of bacteria colonies formed on the surface. In Figure Two we compare **Clean Pro Plus Detergent Disinfectant** with a market leading consumer product. Both were applied at recommended use strength. A red stain was used to visualise the bacteria colonies (E.coli) after six hours. Clearly the market leading product has allowed bacteria to multiply and cover the entire plate, this suggests poor initial kill. Whereas; **Clean Pro Plus Detergent Disinfectant** gave a very complete initial kill and shows little recovery growth.

**Figure Two**  
**Comparison of Clean Pro Plus Detergent Disinfectant with a Consumer Disinfectant**



Clean Pro Plus Detergent Disinfectant test data against BS EN 1276 and / or BS EN 13697 is available on request, please contact [cleanproplus@booker.co.uk](mailto:cleanproplus@booker.co.uk)

## How often should I change the Detergent or Disinfectant Solution?

The answer here is simple.

- Does the solution look dirty? If yes change it!
- Is the washing up water cold? If yes change it!
- If the solution left over from yesterday is in a sealed trigger spray and is not hazy, it can be used. If it is an open container or hazy, change it!
- Large organisations may have specific internal procedures for refreshing solutions that have been validated. These must be followed.

Information on Clean Pro products is available from your local Catering Development Manager or from the Technical Manager for cleaning products – Tel: 01933 371000 or e-mail: [cleanproplus@booker.co.uk](mailto:cleanproplus@booker.co.uk)