

## The Role of Cleaning in Food Safety

### Why clean kitchens and food preparation areas?

Keeping kitchens clean is an important step in preventing food poisoning. There are many reasons for cleaning but the most important reason is to ensure that all surfaces and equipment that come into contact with food are not contaminated with food poisoning bacteria.

Other reasons include:

- Preventing pests such as rats, flies and cockroaches being attracted to the kitchen.
- Creating a pleasant working environment.
- Reducing the risk of cross contamination from both bacteria and allergens such as nuts and seeds.
- Reducing the risk of slipping and tripping accidents from spillages and food waste/debris.

### What is Cleaning and Disinfection?

To help ensure the safety of your food, it is essential that surfaces and equipment are:

- visually clean (cleaning)
- free from excessive levels of harmful bacteria (disinfection)

**Cleaning** is the removal of food residues, dirt, grease and other undesirable debris. This requires physical energy (elbow grease!), heat and/or chemicals (detergents). Cleaning only removes dirt from the surface but does not kill all bacteria.

**Disinfection** is the reduction in levels of bacteria to a safe level. This is usually done by the use of chemicals such as disinfectants and sanitisers, intended for food use; or by heat (hot water around 82°C or steam).

## How do we clean?

Keeping kitchens clean can be hard work but there are many products available to make life easier. It is important that we follow the manufacturer's directions on things such as contact times and dilution rates and that we choose the right chemical for the job.

**Detergents** – these are chemicals that are used to remove grease, dirt and food, such as washing-up liquid.



**Disinfectants** – these are chemicals that reduce bacterial numbers to safe levels. It is important to check that surfaces are clean of grease, dirt and food before you use a disinfectant. There are two main categories of disinfectant:

Chlorine based disinfectants (Hypochlorites) - These are effective, cheap and widely available. They are the most common disinfectants. Sodium hypochlorite is used most frequently and this is commonly known as bleach. Pure bleach must be diluted following the manufacturer's instructions if it is to be used for cleaning kitchen work surfaces.

Quaternary Ammonium Compounds (Quats) – QUATs have a very strong affinity for surfaces, which makes them powerful surfactants. Quaternary salt compounds can be formulated with a variety of ingredients to provide a safe and effective neutral pH, disinfectant-cleaner. They are widely available and have the advantage of being odourless and non-corrosive.

**Sanitisers** - these are two-in-one products that act as both a detergent and a disinfectant. They may be chlorine based or contain quaternary ammonium compounds. Some of these also come in convenient "wipe" formats.

## Dilution rate

Many cleaning chemicals are concentrated, so you need to add water to dilute them before they can be used. The dilution rate tells you how much water to use with the chemical. It's important to follow the manufacturer's instructions and get the dilution rate right. Otherwise the chemical won't work effectively. Remember, using more disinfectant and less water than recommended on the label won't make the disinfectant more effective – it could even have the opposite effect.

## Contact time

Many disinfectants and sanitisers require a certain amount of contact time before they will work and it is important that you follow the manufacturer's instructions on this.

## What should we disinfect?

All food and hand contact surfaces should be disinfected / sanitised. This includes work surfaces, chopping boards, knives, slicers (food contact surfaces) and door handles, fridge handles, light switches taps etc (hand contact surfaces).



## What about cleaning cloths?

Dirty cleaning cloths can act as a bacterial superhighway – transporting bacteria around a kitchen. A recent survey carried out by the Global Hygiene Council found E.coli in high numbers on many domestic dishcloths; similar findings were found in commercial kitchens on BBC1 programmes Watchdog and Rogue Restaurants. The trouble is that whilst the owner of the cloth means to clean – precisely the opposite is happening. Therefore cloths should be disinfected at least daily, and or stored in a regularly changed bleach or disinfectant solution.

Paper towels and sanitiser are the safest option, but there is a financial and environmental cost associated with this. Disposable wipes are an alternative however it would again be costly if these were used for all cleaning. It is also important that these cloths are thrown away after use, as otherwise they could become as contaminated as cloths.

It is best to use paper towels or wipes on areas where ready to eat food is to be prepared, to ensure that cross contamination risks are reduced. Similarly, a disposable method would be useful when cleaning up after handling raw meat or poultry so that there is no risk of pathogens getting onto cloths that are then re-used in the kitchen.



There is an increasing market for the use of micro-fibre cloths, which are more expensive and claim to pick up bacteria from surfaces. Because they are expensive, people are reluctant to dispose of them; they may be safe if boiled regularly but if not cleaned, could represent a hazard in the home.

### **Choose carefully!**

Both chlorine based and quaternary ammonium compounds can be effective sanitisers for kitchens. There are many different brands on the market of each type of product and you should choose wisely to avoid cluttering your cleaning cupboards with lots of cleaning chemicals that do the same thing!

A word of caution – don't ever be tempted to make your own mix of sanitiser. At best it probably won't work, and at worst it could cause an explosion or release of toxic gases!

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