

How to clean effectively



**A Cleaning Guide for Food Business Operators,
Owners and Managers of Food Businesses**



Contents

Cleaning and the law	4
Cleaning products	6
Cleaning practices	12
Planned cleaning.....	16
Chemical safety	18
Glossary of terms	21

Introduction

Effective cleaning in your food business plays an essential role not only in ensuring that the products you are supplying are safe to eat, but also in the profitability and reputation of your business.

This booklet has been produced by the Food Safety Team of Harrogate Borough Council.

It provides guidance to food business operators, owners or managers of small and medium sized enterprises to enable them to select and use cleaning materials and equipment effectively. A list of technical terms has been included at the back of the booklet.

It also gives guidance on how to plan cleaning routines so that all areas are cleaned with the correct products at a frequency that will keep food safe and be cost effective for your business.

The centre pages incorporate an outline of a cleaning plan which can be removed and copied if required.

We hope that this guide will help simplify what would appear to be the complex world of cleaning.

Cleaning and the law



Q *Why must I keep my food premises clean?*

A If for no other reason, the law says that you must! Regulation (E.C.) No. 852/2004 states that all parts of a food premises must be kept clean. Adequate cleaning and disinfection procedures are considered critical to control cross-contamination of food by bacteria and to ensure food safety. This can have an impact on your businesses reputation and profitability.

The critical areas to be disinfected are:

- Those which come into contact with food eg, preparation tables and boards.
- Those which are in contact with hands eg, taps, handles.
- Items that can contaminate and allow bacterial multiplication eg, cloths, mops, bins.

Q *Who is responsible for cleaning and disinfection?*

A You as the food business operator or the manager of the business. Whilst it is your staff that may undertake the physical cleaning tasks, it is the responsibility of you to ensure that:

- Premises and their contents are capable of being effectively cleaned.
- Enough staff are employed and enough time is allocated to ensure that cleaning tasks can be carried out.



- That staff are motivated, instructed supervised and controlled to carry out the cleaning tasks properly.
- That appropriate and sufficient materials and equipment are provided.
- Cleanliness standards are monitored on a regular basis.

Q *What are ‘appropriate’ materials and equipment?*

A Materials will include hot and cold water, detergents and disinfectants (including sanitisers).

If you do not use the correct materials, or your cleaning equipment itself is not kept clean then your cleaning will not be effective.

Q *Are there any other benefits to my business other than complying with the law?*

A Yes:

- You will reduce the risk of food poisoning and food spoilage.
- There is less likelihood of pest infestation.
- There is less likelihood of foreign objects from your premises getting into your food.
- You will reduce the risk of accidents to your customers and staff.

Cleaning products



Q *I am familiar with the terms 'cleaning, disinfection and sterilisation', but what exactly is the difference?*

A **Cleaning** is the process of removing dirt, food debris, grease, residues and other objectionable matter.

Disinfection is the process of reducing germs to a safe level eg, bacteria and viruses.

Sterilisation is a process that destroys all living organisms including their spore. This usually applies in medical situations and is not achievable in catering settings.

Q *So what chemicals should I be using to clean and what to disinfect?*

A Cleaning effectively involves the use of detergents. These consist of a chemical or mixture of chemicals made from soap or synthetic substitutes. They act as a wetting agent to break up and lift greasy dirt and hold the dirt in suspension so that it can be rinsed away.

Disinfectants are used to reduce micro-organisms on food and hand contact surfaces, and equipment to a level that will not lead to harmful contamination or spoilage of food. Chemical disinfection must only be carried out after cleaning and rinsing otherwise the disinfectant may not work.

Heat will also kill micro-organisms therefore you can use very hot water as a disinfecting agent as long as it remains in contact with the item to be disinfected for a sufficient length of time, eg 82°C for 30 seconds.



The use of dishwashers to clean utensils and food equipment is good practice as long as:

- they are properly maintained and cleaned regularly;
- they are serviced routinely;
- the full cycle is not interrupted once it has started;
- excess food particles are removed first;
- you avoid overloading;
- you pre-rinse equipment and utensils;
- there is regular removal of lime scale build-up;
- you use the appropriate chemical for the machine.

Q ***I have heard of a product called ‘sanitiser’. Is it a detergent or a disinfectant?***

A It is in fact a combination of both. This is a product that is used to clean with and then to disinfect surfaces and equipment. It is usually only suitable for areas of light soiling only.

Q ***How can I find out what chemicals to use?***

A Specialist suppliers can provide advice and some provide a tailored cleaning system and training.

Alternatively it is important that you identify what type of product you need yourself. Information from the manufacturer/supplier or the label can help you to do this.



Q ***How will I be able to identify suitable cleaning agents?***

A On commercial or domestic products the labelling or data sheets will give information regarding the ingredients contained in the product.

A detergent will have an ingredient with the term 'Anionic' or Non-ionic surfactant'. This is the active ingredient which will give the chemical its cleaning ability.

If the product has the ingredient 'Cationic' or 'Amphoteric surfactant' it will also have disinfection properties and can therefore be used as a sanitiser.

Q ***What is a suitable disinfecting chemical?***

A Again, look at the label/data sheet.

The most common active ingredient used in disinfectants is 'Chlorine compounds' (hypochlorites) which release chlorine. This attacks bacteria, viruses, moulds and fungi. These are used extensively in the food industry.

Any disinfectant or sanitiser used to control cross contamination from bacteria should at least meet the requirements of one of the following published standards at the recommended use, dilution and correct time:

BS EN 1276; or

BS EN 13697



These standards provide assurance that the product is capable of reducing a range of harmful bacteria, including E.coli, to acceptable levels.

Q ***Are cleaning materials and equipment expensive?***

A No. Studies indicate that the most expensive element of a cleaning operation is labour costs. Materials and equipment only account for 18% of costs.

Following the correct dilution rates can also save costs.

Q ***I always use anti-bacterial soap at my hand basin. Do I need this?***

A Thorough hand washing is seen as the key activity to the prevention of cross contamination in the preparation and handling of food. For extra protection it is recommended to use anti-bacterial hand wash that has disinfecting properties conforming to the European standards BS EN 1499.

Hand sanitising gels can provide another level of protection when applied after hand washing (not instead of) and should conform to BS EN 1500.

Q ***How will I know how to make up my disinfectants?***

A When you buy a chemical in a bulk concentrated form, the label should indicate what the dilution rate is for the product to be effective. In some cases the



manufacturer provides a dispenser and/ spray bottle to ensure the correct concentration is made.

Choose a spray bottle of a known capacity and don't forget to label the container so everyone knows what it contains. It may be useful to mark the bottle to show where the chemical should be added to.

Q ***I have heard people talk about 'contact times' for disinfectants to ensure they do their job. What does this mean?***

A A contact time is the length of time which a disinfectant needs to be in contact with a surface for it to be able to kill any bacteria present. Contact times can vary greatly so the manufacturer's instructions must be followed.

Where you want the chemical to reduce bacteria levels it is important to look at concentrations and the contact times needed.

Q ***There seems to be a lot of chemicals to choose from. How many do I really need?***

A It is important that you decide what you want the chemical to do, i.e. clean, disinfect, degrease etc. Many products have a range of uses so try and limit the range to as few as possible to simplify matters. Whatever you choose you should obtain chemicals from a reputable supplier.



Q ***What will help me choose the correct cleaning products to use in my business?***

A Ask yourself or your supplier:

- What do I want the product to do, eg. clean, de-grease, disinfect?
- Where do I want to use it. Eg food preparation surface, floor?
- Is the product ready to use or does it need diluting?
- Is there enough information contained on the label?

Cleaning practices



Q *How should I decide what is to be disinfected?*

A All food and hand contact surfaces within your food premises need to be disinfected. This is because the presence of micro-organisms on these may have an adverse effect on the safety of the food. These include:

- Direct food contact surfaces: eg work surfaces, chopping boards, food equipment
- Hand contact surfaces: eg 'fridge handles, light switches, taps, doors

When the same non-food surfaces such as worktops, sinks etc. are used at different times to prepare raw and ready to eat food they must be cleaned AND disinfected between uses. A two-stage process should be employed:

1. This involves the physical removal, usually with a detergent, of visible dirt, grease, film or solid matter, followed by a thorough rinse to ensure the removal of all residues before moving to stage 2.
2. This involves the use of a disinfectant, used following the manufacturer's instructions for dilution, contact times and rinsing.

If a sanitiser is used the two-stage process above is still followed by using the product both for general cleaning and then to disinfect.



Q ***Do food handlers' hands need to be disinfected?***

A This is only necessary in critical situations where the handling of high risk foods is unavoidable. Proper regular hand washing using hot water and liquid, preferably microbiological, soap along with thorough hand washing is satisfactory.

Paper towel used to dry hands should be then used to turn the taps off.

Q ***What about the cleaning equipment and materials I use in my business?***

A Cleaning equipment itself can be a vehicle of contamination and therefore disinfected frequently.

Cloths, towels etc. that have been used to clean raw food areas must not be used to clean ready to eat areas unless washed between uses at suitably high enough temperatures to ensure bacteria is killed, for example using a hot cycle in a washing machine that typically operates at 90°C.

Floors: Cleaning materials used for floors must be kept separate to materials used for clean areas as a floor surface can never be regarded as clean. Splashing should be avoided and it may be useful to colour code equipment so it is easily identifiable for a particular area.



Q *What about using disposable cloths?*

A The use of disposable single-use cloths/paper roll is always recommended but is particularly beneficial where your operations include the handling of both raw and ready to eat food. These can be colour coded to differentiate between uses in different areas.

Q *Why did my Environmental Health Officer tell me not to leave my mop soaking in a bucket of bleach?*

A When a bleach solution comes into contact with a dirty mop the bleach is inactivated. The best chemical disinfectants working under the best conditions will rarely ever kill 100% of bacteria present. As the disinfectant properties fade the potential for bacteria to grow increases.

Disinfectant solutions should be made up as required and mops thoroughly cleaned, disinfected then left to dry as the removal of moisture also helps prevent the growth of bacteria mop heads should be changed regularly.

Q *I use liquid bleach in my kitchen as a disinfectant, is this okay?*

A Bleach is effective but has some disadvantages. It has a pungent odour, can taint food, is corrosive and is adversely affected by light and heat.

Steeping dirty cloths in bleach is not considered an effective measure to control cross contamination.



Any organic matter such as food, grease etc. left on cloths will reduce the effectiveness of the disinfectant properties of bleach.

Bleach is sold in varying concentrations therefore it is important to follow the manufacturer's instructions regarding dilution rates.

Q ***Do all disinfectants work in the same way?***

A To be effective the disinfectant must come into contact with the cell wall of the bacteria. These chemicals interrupt the function of the cell which allow it to grow.

Bacteria show a range of sensitivity to a particular disinfectant, some being more easily destroyed than others. No one chemical agent is effective against all organisms and the manufacturer will talk about the spectrum of a disinfectant. This is the range of bacteria against which a particular disinfectant will be of value.

If disinfectants or sanitisers are being prepared in advance or transferred into new bottles then it is good practice to put label instructions on the bottle on how to use. Further information can be found through the Health and Safety Executive - www.hse.gov.uk

A list of products that comply with BS EN 1276 and/or 13697 can be accessed at www.disinfectant-info.co.uk. (This is an externally maintained website)

Planned cleaning



Q *What makes an area clean enough for the production of food?*

A An area used for the production of high risk ready to eat food must be:

- Physically clean.
- Chemically clean.
- Microbiologically clean.

Q *What does that actually mean?*

A Physically clean means a surface is free from all dirt, soiling, grease or residue.

Chemically clean means all residues and deposits from cleaning and disinfection chemicals have been removed.

Microbiologically clean means that the number of micro-organisms has been reduced to a level that is acceptable for human health.

Q *What is a cleaning schedule?*

A This is a method to communicate cleaning standards to your staff and ensure that cleaning tasks are carried out. This can be done by good instruction, supervision and checking to ensure that a plan is followed and good standards are maintained.



Q *What information would I need to include on a cleaning schedule?*

A In the centre of this booklet is a blank template which you can use to organise your cleaning tasks. You can record specific information about the equipment or areas to be cleaned, the frequency, materials to be used, concentration of chemicals and methods of use, including contact times.

Q *Is having this schedule enough?*

A No. You also need to make sure that the cleaning has actually been done in accordance with your plan, and to the correct standard.

Q *How can I do that?*

A By using the daily cleaning record template at the centre of this leaflet to identify and record daily cleaning for your staff.

Q *Is keeping these records necessary?*

A Yes. These documents will form part of your Food Safety Management System and will also provide, if necessary, evidence that you are taking all reasonable precautions in respect to keeping your premises clean and the food safe.



Q *Will the staff that does the cleaning in my business need any training?*

A Yes. Your cleaning staff play a key role in maintaining the safety of the food prepared on your premises. It is essential that they are supervised, instructed and/or trained in the effective use of named chemicals, equipment and procedures, whilst also ensuring their own health and safety. Senior staff should lead by example and motivate staff to carry out what are seen to be rather mundane tasks.

Chemical safety



Q *Can any chemicals which I use in my kitchen cause me or my staff any harm?*

A Yes. Some chemicals can be harmful to the user in a number of ways eg. By coming into regular contact with their skin, by being toxic or an irritant. These properties will be indicated on the label of the cleaning product if appropriate.



Q *How will I know which products will need to be used with extra care as they are hazardous?*

A If one of your cleaning products has one of the symbols below on the label then you need more information. This information can be obtained from the hazard data sheets supplied by the manufacturer of the product.



Health Hazard



Flammable



Acute Toxicity



Corrosive



Hazardous to the Environment

Q *I have heard of COSHH but what exactly does it mean?*

A The Control of Substances Hazardous to Health Regulations (2002) (COSHH) require you to carry out an assessment of all products which you use if they are hazardous. You should change them for a user friendly product, or, if this is not possible, provide suitable protective equipment and training for the user.



Q *Can I get any help with these assessments?*

A Yes. From the following website:

www.coshh-essentials.org.uk

This will help you make an assessment of the products which you intend to use and give guidance to you on what, if any, controls you should put in place.

You can also carry out an assessment by using the manufacturer's data sheets to establish if any controls are necessary to ensure safe use.

You can also download a useful guide called Working with substances hazardous to health - a brief guide to COSHH from:

www.hse.gov.uk/pubns/indg136.htm

Q *Are there any safety precautions about the cleaning precautions that I can give my staff?*

A Yes.

- Ensure all cleaning chemicals are properly labelled.
- Never mix chemicals as they may react together and give off a toxic gas.
- Store chemicals in a secure area away from food.
- Follow the instructions on how to handle spillages of cleaning products.
- Always use personal protective equipment if required.

Glossary of terms

Anti-bacterial hand wash	Hand sanitising products such as bactericidal liquid or foam soaps
Bactericide	A substance that destroys bacteria
Biodegradable	Chemicals and materials which can be broken down by bacteria or other biological means
BS EN	British Standard, European Norm. Disinfectants that comply with BS EN 1276 and/or BS EN 13697 published standards or alternative standards that meet the same conditions that have been shown to kill certain pathogenic bacteria if applied as per manufacturer's instructions
Cleaning	The process of removing soil, food residues, dirt, grease fat and other objectionable matter
Contact time	The period of time that a disinfectant needs to be left on a surface to work effectively
Contamination	The presence or introduction of a biological, physical or chemical hazard in a food or in a food environment

Cross contamination	The transfer of hazards either directly or indirectly
COSHH	The control of substances hazardous to health
Detergent	Soap or a mixture of chemicals which assists in the removal of grease and food particles from tools and equipment. It does not have disinfectant properties
Disinfectant	Products capable of reducing the levels of specific pathogenic bacteria when applied to visibly clean surfaces, for the correct time at the correct dilution rate
Disinfection	The reduction of microorganisms to a safe level that will not lead to harmful contamination or spoilage of food
FBO	Food business operator (proprietor)
Hand sanitising gel	Products such as alcohol based gels, bactericidal gels and wipes that sanitise clean hands
Monitoring	A pre-arranged programme of checks of critical and legal to check if control measures are in danger of failing limits

Non-food contact surface	Surfaces that do not normally come into contact with food e.g. walls, but can potentially cause cross contamination due to close proximity of exposed food
Potable water	Wholesome drinking water
Ready to eat foods(RTE)	Foodstuffs or ingredients that are intended to be consumed without further processing e.g. washed and peeled fruit, cooked meats, salads, pies, sandwiches etc
Sanitiser	A single product that combines a disinfectant and a detergent. They must be used twice for effective disinfection: first to clean and then again to disinfect
Sterile	Free from all living organisms
Sterilisation	A process that destroys all living organisms
Sterilising sink	A sink used to sterilise equipment. Must be able to operate to 82°C
Supervision	The process of overseeing the performing of tasks and procedures to ensure that they are carried out effectively

