

**Food Safety Guidance**

**Cleaning and Disinfection**

**Cleaning** is the process of physical removal of food debris, visible dirt and grease from surfaces, equipment and fittings using hot water and detergent. Cleaning on its own will not remove all bacteria.

**Disinfection** is the process of killing bacteria and viruses following general cleaning. This can be achieved using an approved disinfectant (see below) or very hot water (usually above 82oC).

It is very important to identify the areas of your premises which need to be cleaned only, and the other areas for which disinfection is also required. For example all areas must be cleaned but any surface/area which involves food contact, hand contact points and also cleaning equipment must then be disinfected. Your **Cleaning Schedule** must detail the cleaning and disinfection required within your premises. The Cleaning Schedule will form part of your Food Safety Management System (FSMS) e.g. CookSafe (an example Cleaning Schedule is attached).

There are a number of detergents and disinfectants on the market and we cannot recommend any particular chemicals. In terms of a **detergent** you can choose any which effectively removes grease and food residues. In terms of a **disinfectant** it must meet **BS EN 1276 or BS EN 13697**. You should check the product label or contact your chemical supplier to ensure it meets this standard and also to confirm its dilution rate and contact time.

**Dishwashers**

Dishwashers will typically clean the items in the wash cycle and disinfect at the rinse cycle with water at a suitably high temperature. Commercial dishwashers are strongly recommended.

If you are cleaning and disinfecting using a dishwasher you must ensure the following:-

* Items are pre-cleaned by scraping/rinsing remaining food etc.
* The dishwasher must be properly maintained and serviced routinely.
* You must follow the manufacturer’s instructions in relation to correct loading; removal of limescale from water-jets, filters and drains; appropriate use of chemicals; and regular cleaning of the machine.

**Double sink washing**

If you do not have a dishwasher, or the dishwasher is out of order, then the two-stage sink method must be used:-

Within the **first sink** you must use hot water and detergent to clean the items.

Within the **second sink** you must use a disinfectant which complies with BS EN 1276 or BS EN 13697. To ensure this is used correctly you must initially measure how much water you would normally use (you are best to alter this amount to a quantity which allows easy measurement of the disinfectant) and mark the sink in some manner e.g. plumbing tape. You must then use the dilution rates provided by your chemical supplier to work out the amount of disinfectant to be added to the sink of water (see dilution matrix below). You must have facilities to accurately measure this amount e.g. pump dispenser provided with the disinfectant (these usually provide 30ml per pump), small jug or other measuring device.

You must then ensure the items are left in the second sink for the **correct contact time**, again this will be provided by your chemical supplier.

You must follow the manufacturer’s instructions in relation to rinsing, which may be required after cleaning, after disinfection, or both.

**Cleaning in Place**

Many items cannot be washed in a dishwasher or sink and will have to be “cleaned in place”, for example work surfaces, sinks, wash hand basins, taps, door handles.

Again this requires to be carried out in two stages:-

**Stage 1**: Firstly the area/item must be cleaned using soapy water or detergent spray.

**Stage 2**: The area/item must then be disinfected using a disinfectant which meets BS EN 1276 or BS EN 13697.

Many businesses use a disinfectant spray which is bought as ready-to-use and therefore this is sprayed onto the clean surface, left for the correct contact time, then wiped or rinsed depending on the manufacturer’s instructions.

You can however use a disinfectant which you dilute, usually into a spray bottle. You must know the size of the spray bottle (usually 600ml or 750ml) and use the dilution rates to calculate the amount of disinfectant to be added. Some of the amounts will be very small and therefore you must have a suitable measuring device. You could ask your chemical supplier if they can assist with this. Some chemicals have a measuring device built into the bottle of the neat chemical. Similar to the ready to use chemical you must adhere to contact times/rinsing instructions.

**Cloths and other cleaning equipment**

You must ensure that cloths and other cleaning equipment (such as scourers, dish brushes) are not a source of contamination. **Cloths and equipment used for raw areas/equipment must not then be used for ready-to-eat areas/equipment**. Ideally, single-use paper towels/cloths should be used. If this is not possible, the next best option would be J-cloths or similar which are discarded at the end of each service/day. The least favourable option would be the use of washable cloths. For any re-usable cloths those used in the raw area must be different from those used in the ready-to-eat area e.g. colour coded.

Where cloths are to be washed rather than discarded they must be cleaned and then disinfected. The best method is within a 90oC washing machine cycle. If this is not possible the cloths must be cleaned using a detergent and then disinfected using a BS EN 1276 or BS EN 13697 disinfectant. You must check with your chemical supplier that the disinfectant is suitable for cloths, and not just hard surfaces. The dilution rate and contact time must be adhered to. Chlorine-based tablets appear to be most frequently used for this purpose.

**Training**

All staff responsible for any cleaning activities must be suitably trained. The Cleaning Schedule should form the basis of this training. Some of the larger chemical suppliers may even provide their customers with training on the use of their chemicals.

Bear in mind that staff must be advised of dilutions in an easy to understand manner. For example staff will not understand “dilute 1:100”, but they should understand “fill the sink to the marked level (10 litres) and add 100ml of the disinfectant using the small jug”.

Any training whether by the food business operator/manager or the chemical supplier must be **recorded**.

**Disinfectant Dilution Matrix**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Water in litres within sink or container | 0.5 | 0.75 | 1 | 2 | 5 | 10 | 20 | 40 |
| **Dilution Ratio (solution strength)** |  |  |  |  |  |  |  |  |
| **1:20**(5%) | 25ml | 38ml | 50ml | 100ml | 250ml | 500ml | 1 litre | 2 litres |
| **1:40**(2.5%) | 13ml | 19ml | 25ml | 50ml | 125ml | 250ml | 500ml | 1 litre |
| **1:50**(2%) | 10ml | 15ml | 20ml | 40ml | 100ml | 200ml | 400ml | 800ml |
| **1:60**(1.6%) | 8ml | 12ml | 16ml | 33ml | 83ml | 166ml | 332ml | 664ml |
| **1:80**(1.25%) | 6ml | 10ml | 13ml | 25ml | 63ml | 125ml | 250ml | 500ml |
| **1:100**(1%) | 5ml | 8ml | 10ml | 20ml | 50ml | 100ml | 200ml | 400ml |
| **1:150**(0.6%) | 3ml | 5ml | 7ml | 13ml | 33ml | 67ml | 134ml | 268ml |
| **1:200**(0.5%) | 3ml | 4ml | 5ml | 10ml | 25ml | 50ml | 100ml | 200ml |

**Other points to remember**

* Whenever you change the cleaning chemicals you must amend the Cleaning Schedule and re-train staff.
* Neglecting or ineffective cleaning can lead to illness for your customers or legal action against the business. In some cases businesses have been closed down.
* Never mix different chemicals as this can lead to poisonous gases being formed.
* Specific safety laws cover the safe use of many cleaning chemicals. Always read and follow any instructions. Ask your supplier for information to comply with the Control of Substances Hazardous to Health Regulations (COSHH).
* Some equipment will require to be switched off/isolated before cleaning so follow the manufacturer’s instructions in this regard.

**Further help**

Remember it is your responsibility to ensure that the food served to your customers is safe. If you require further information please contact the Food & Safety team at fs@falkirk.gov.uk

**CLEANING SCHEDULE**

**This is an example only – you must create your own schedule referring your own chemicals, dilutions, contact times, frequencies etc. A blank** [**Cleaning Schedule template**](https://www.foodstandards.gov.scot/publications-and-research/publications/cleaning-schedule) **can be found on the Food Standards Scotland website.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Items, areas to be cleaned and examples** | **Frequency of** **Cleaning** | **Method of Cleaning** | **Chemical, Dilution and Contact Time** |
| **Moveable equipment, utensils:*** all chopping boards,
* tongs/ spatulas
* serving spoons
* trays
* containers
 | After each useEnd of the day/After useEnd of the dayEnd of the dayEnd of the day/After use | Method 2 – Twin SinkClean and Disinfect | **Clean with fairy washing up liquid in first sink then disinfect with Cleanline bactericidal detergent in second sink.** **Cleanline Bactericidal detergent (1:120)=** **100ml (4 shots) per 10 litres of water (half sink)****Contact time: 5 minutes** |
| **Non-food contact items/equipment*** work surfaces
* wash hand basin
* taps
* door handles
 | After each useEnd of the dayEnd of the dayEnd of the day | Method 3 – Clean and disinfect in place | **Clean away debris etc until the surface looks clean then spray with ready-to-use Nilco Anti-Bac.****Contact time:-****1 Minute** |
| Refrigerator/chill and Freezer | Fridge every dayFreezer every 3 weeks | Method 3 – Clean and disinfect in place | **Nilco Anti-Bac as above** |
| Microwave oven | End of the day | Method 3 – Clean and disinfect in place | **Nilco Anti-Bac l as above** |
| Dry storage area | Once per week | Method 3 – Clean and disinfect in place | **Nilco Anti-Bac as above** |
| Floors | Every day | Clean only | **Deepio****Half cup per bucket of water** |
| Extraction Fans  | Once per week | Clean only | **Fairy liquid/heavy duty degreaser** |
| Food waste containers and refuse waste bins/area | Once per week | Method 3 – Clean and disinfect in place | **Nilco Anti-Bac as above** |
| Cloths  | Every day | Washing machine | **Wash using non-scented soap powder at 90oC cycle** |
| Work clothes | Every day | Washing machine | **Wash using non-scented soap powder at 40oC cycle** |