

Information for food businesses: cleaning and sanitising

Food businesses need to maintain their premises at a high standard of cleanliness and hygiene to produce safe and suitable food. This includes the fixtures, fittings and equipment, as well as those parts of vehicles that are used to transport food.

Processing food with dirty equipment will transfer bacteria or other organisms onto the food. Food utensils and equipment must be cleaned and sanitised before each use and between being used for raw food and ready-to-eat food to prevent cross contamination and to protect customers from foodborne illness.

Where utensils or equipment or surfaces have been used over a period of time to prepare, process or serve the same food, they will also need to be cleaned and sanitised at regular intervals. Application of the 2-hour/4-hour rule is required. For example, knives and cutting boards used to make sandwiches, serving utensils, or a meat slicer used to slice ham should be cleaned and sanitised after each use or at least every 2 hours.

It is important to understand that cleaning and sanitising are different procedures.

Clean means 'clean to the touch', that is, free from any food waste, dirt and grease. Cleaning is the removal of these particles so that the utensil or food contact surface looks clean, feels clean and is free of odours. This is usually achieved using water and detergent. Microorganisms will be removed but the cleaning process is not designed to destroy microorganisms.

Sanitise means to apply heat and/or sanitising chemicals to a surface so that the number of microorganisms on the surface is reduced to a level that does not permit the transmission of infectious disease.

Cleaning and sanitising should usually be done as separate processes. A surface needs to be thoroughly cleaned before it is sanitised, as sanitisers are unlikely to be effective in the presence of food residues and other matter. Equipment with surfaces that are difficult to get at such as stab mixers, blenders, meat slicers and can openers, may need to be dismantled first.

Six steps for effective cleaning and sanitising are:

1. **Pre-clean:** scrape or wipe away food scraps and other matter and rinse with water.
2. **Wash:** use hot water and detergent to take off any grease and dirt. Soak if needed.
3. **Rinse:** rinse off detergent and any loosened residue.
4. **Sanitise:** use a sanitiser to destroy any remaining bacteria.
5. **Final Rinse:** wash off sanitiser if necessary (refer to manufacturer's instructions).
6. **Dry:** allow to drip dry or dry using single use towels.

Methods for sanitising

Most food poisoning bacteria are destroyed if they are exposed to chemical sanitisers, high heat or a combination of both. To sanitise, either:

- **use a commercial dishwasher on the sanitising cycle.** Domestic dishwashers may be unsuitable due to high volumes of dirty eating and drinking utensils generated and long sanitation cycles. Commercial dishwashers generally either use high temperatures (greater than 80°C), or chemical sanitisers. If using heat to sanitise, the surface temperature of items



in the dishwasher should be checked e.g. with an indicator temperature-sensitive tape that changes colour at sanitising temperatures or with a maximum-registering thermometer attached to items with tape or an elastic band. A laser thermometer directed at items as soon as the dishwasher is finished and opened can also be used with a final minimum surface temperature of 71°C. Clean and service the dishwasher regularly (including filters); or

- **soak items in hot water at 77°C.** Contact time is for 30 seconds. Usually, sinks used for sanitising deliver hot water of at least 80°C or have a heating element within the sink. The water temperature may need to be monitored with a thermometer to confirm it remains hot enough for the whole sanitation period. Care should be taken to avoid scalding hands; or
- **use a food-grade sanitiser in accordance with the manufacturer's instructions.** Traditionally used chemical sanitisers include chlorine-based compounds (e.g. hypochlorite or bleach), quaternary ammonium compounds, alcohol, iodophors (iodine), organic acids (e.g. peracetic acid) and hydrogen peroxide. Particular attention is required to ensure the correct dilution rate is used, the required contact time is adhered to and the product is within the expiration date. If dilution is required, a new expiration date may be required for the diluted product to remain effective. For example, once diluted, a sanitiser may only be effective for 24 hours. If information is not available in the instructions, it can be sought from the manufacturer. Date marking containers of diluted sanitiser may safeguard against use past the expiry date; or
- **soak items in water that contains plain unscented bleach.** The concentration of chlorine will vary depending on the water temperature. The table below shows the amount of bleach required and the corresponding water temperature required to make a sanitising solution. Utensils, equipment and surfaces can be left to air dry (no rinsing required). If stronger concentrations than recommended are used, then rinsing is required before air drying. Contact time is generally about 30 seconds. Diluted bleach solutions should be discarded after 24 hours because the active ingredient breaks down and becomes ineffective.

How much water?	How much bleach?		
	Commercial bleach (10% chlorine) Plain unscented household bleach (4% chlorine)		
Minimum water temperature	49°C	38°C	13°C
Concentration required for 10 litres of water	2.5 ml commercial bleach or 6.25 ml household bleach	5 ml commercial bleach or 12.5 ml household bleach	10 ml commercial bleach or 25 ml household bleach

Chemicals that are not effective sanitisers

Vinegar and lemon juice are not effective sanitisers and should not be used. Methylated spirits is unsuitable as it can leave chemical residues. Disinfectants and cleaning agents designed for use on floors and toilets are generally not suitable for use with food contact surfaces because they may contain fragrances, colours or other chemicals that may not be food-grade.

For further information

The Queensland Department of Health has a variety of fact sheets with detailed information on food safety. These can be accessed at www.health.qld.gov.au.

Contact your local government if you have any further questions. Contact details can be found at <https://www.qld.gov.au/about/how-government-works/local-government-directory> or the White Pages.