

# NSW FOOD AUTHORITY FOOD SAFETY SUPERVISOR LEARNER GUIDE

## CLEANING AND SANITISING

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## Overview

The purpose of this Learner Guide is to refresh your knowledge and to maintain your skills in safe workplace cleaning and sanitising practices. While something may look clean, it may not necessarily be clean to level required for food safety, or safe to use.

Good workplace hygiene demands effective, frequent and regular cleaning and sanitising of premises and equipment. This is necessary to remove food residues and dirt which may contain food poisoning and spoilage causing microorganisms. Dirty premises and equipment also act as a source of contamination.

Dirty food businesses also increase the risks associated with pests such as flies, moths and mice which are another source of health risks in food.

Both Food Safety Supervisors (FSS) and food handlers have a responsibility to ensure that food storage and preparation areas, equipment and surfaces are regularly and effectively cleaned and maintained.



## Introduction

Most people in the food industry think that cleaning and sanitising is simply common-sense. They try to do the right thing and do not set out to risk the safety of customers by cutting corners or by not keeping premises and equipment clean.

While you work in the food industry, you must consider a few important issues to manage effective workplace hygiene and cleanliness. Safe food storage and preparation is not just about the food that you and your colleagues handle and sell. It is based on rigorous and regular cleaning and sanitation practices.

## Key factors in cleaning and sanitising

Cleaning and sanitising is considered the most important food safety process. As a worker in the food industry, it is important that you are aware of your responsibility to maintain hygienic work premises.

It is essential that you:

1. Understand the difference between cleaning and sanitising, and that you always put this knowledge into practice.
2. Understand the importance of purchasing and using appropriate cleaning and sanitising products in kitchens, even if you are not directly responsible for ordering these products.
3. Understand the importance of following manufacturer's instructions for the use of cleaning and sanitising products and that you do not mix chemicals and cleaning products.
4. Are aware of the dangers associated with cutting corners on cleaning and sanitising procedures (i.e. do not dilute products below concentrations recommended by the manufacturer; allow enough contact time of products with food preparation surfaces to ensure appropriate effect).
5. Understand how cutting corners may increase the potential for food poisoning micro-organisms to grow in the food premises and increase the risk of food poisoning
6. Know how to clean and sanitise effectively in a retail food service environment
7. Use simple visual checks to examine the effectiveness of cleaning and sanitation practices (e.g. equipment should be visually clean and shiny following washing and sanitising. Food display cabinets should not have food scraps or dirt stuck on shelves or in corners)



Link to image:

[http://www.google.com.au/imgres?imgurl=http://www.elitekitchenexhaust.com/media/photoLG\\_02.jpg&imgrefurl=http://www.elitekitchenexhaust.com/gallery.html&h=368&w=593&tbid=PhklonAwZBYOnM:&zoom=1&docid=Lcx37JCIBXPO2M&ei=K9iRVYPsLcHZmAXkzIDACw&tbn=isch&ved=0C CQQMygJMAk](http://www.google.com.au/imgres?imgurl=http://www.elitekitchenexhaust.com/media/photoLG_02.jpg&imgrefurl=http://www.elitekitchenexhaust.com/gallery.html&h=368&w=593&tbid=PhklonAwZBYOnM:&zoom=1&docid=Lcx37JCIBXPO2M&ei=K9iRVYPsLcHZmAXkzIDACw&tbn=isch&ved=0C CQQMygJMAk)

## Good personal hygiene

Effective cleaning and sanitising starts with good personal hygiene.

Wiping down a bench with a cloth that has been in contact with your unwashed hands after blowing your nose, sneezing or coughing will only increase the risk of contaminating the surface. Always wash your hands before beginning a cleaning and sanitising task and use a clean cloth to wipe down benches. The effectiveness of chemicals and sanitisers will be reduced significantly if you do not practice good hand washing techniques.



Link to image: <http://www.food.gov.uk/sites/default/files/multimedia/pdfs/publication/sfbb-workingwithfd-0513.pdf>

### Learning Activity: 1

Remind yourself about the importance of effective hand washing by viewing the YouTube link below:

Food safety coaching (Part 1): *Hand washing*

<https://www.youtube.com/watch?v=cCpr11OuYKI>

After watching the video on hand washing – list 3 important points to remember when washing your hands.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### What is cleaning and sanitising

Cleaning and sanitising are critical processes for ensuring the safety of the consumer and your employees.

Cleaning and sanitising are separate parts of a two-step process as identified in the following pages:

#### Part 1

Cleaning is the process of removing all food residues, dirt, grease and other visual matter and odours from all fixtures, fittings and equipment.

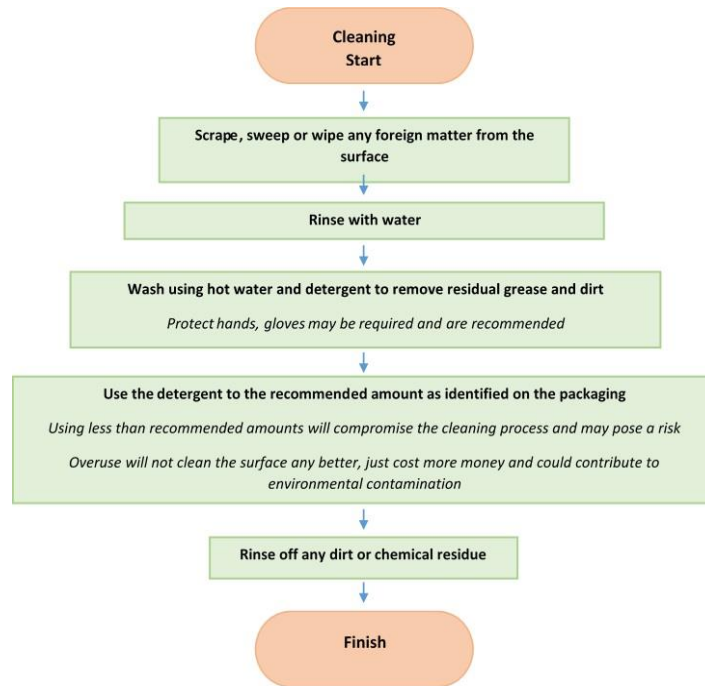


Credit: eWater Systems, accessed 2015

There are six steps for effective cleaning and sanitising. The first three focus on cleaning:

1. Pre-clean: scrape or wipe food scraps and other matter off surfaces and rinse with water.
2. Wash: use hot water and detergent to remove grease and food residue. (Soak if needed.)
3. Rinse: rinse off detergent and any loosened residue.

Remember to 'Clean as you go' and to always follow the steps in the Flowchart below for effective cleaning.



### Learning Activity: 2

Take some time to follow the link and view the YouTube clip on effective cleaning:

*Food safety coaching (Part 6): Cleaning effectively*

<https://www.youtube.com/watch?v=bRh1N1My4GY>

After watching the video, list 3 critical steps in the cleaning and sanitising process

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### Part 2

Sanitising is the process of reducing the number of bacteria and other organisms to a safe level. The process can be either through applying heat and/or chemicals. Sanitising is required for all food contact surfaces and eating utensils.

Steps 4 to 6 for effective cleaning and sanitising deal with minimising the number of bacteria:

4. Sanitise: use a sanitiser to destroy remaining microorganisms (as per manufacturer's instructions)
  - a. Allow the appropriate contact time for the sanitiser to work (as per manufacturers' instructions)
5. Final rinse: wash off the sanitiser if necessary (as per manufacturers' instructions).
6. Allow utensils, crockery and benches to air dry or use single use towels.



The two types of sanitisers are:

1. Heat – using hot water (usually a dishwasher). The higher the temperature the shorter the contact time required.
2. Chemicals – to be effective, you need to have the correct concentration, temperature and contact time.

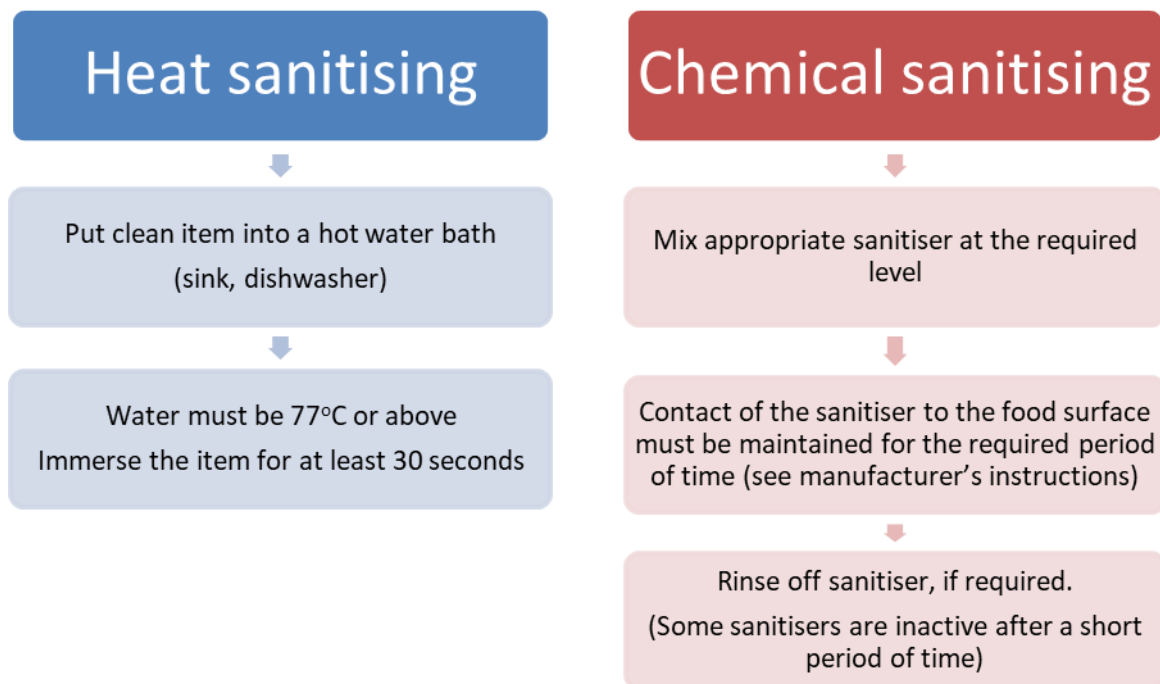
It is important to understand that if preparation benches, surfaces and equipment are only physically cleaned (wiped down), bacteria will live and multiply. Wiping a surface evenly distributes the bacteria over it.

Sanitising is only effective on clean surfaces. Sanitising works best on surfaces free from dirt, grease and food particles.

The sanitising process will not kill all bacteria, but it will reduce the number to an acceptably low safe level.



The chart below provides details about how to use heat (hot water) and chemicals to sanitise equipment and surfaces.



Cleaning and sanitising is only effective if used and applied appropriately. Dry the surface after sanitising, water left on a surface provides ideal conditions for bacterial growth.

### Using sanitisers effectively

Sanitisers appropriate for use in food preparation areas must be purchased and used according to manufacturer's instructions to ensure that:

- The risk of chemical contamination is removed
- The chemical is suitable for contact with food, meaning it will not leave chemical residue after use e.g. methylated spirits is NOT to be used for this reason
- The sanitiser is effective when used at the recommended concentration e.g. vinegar is ineffective as it is a weak acid that will NOT reduce the number of bacteria to a safe level
- Bleach is effective but MUST be used at the correct water temperature for the level of chlorine and concentration. Bleach must be prepared daily to ensure the solution remains effective.



**Table 1: Using bleach as a sanitiser**

How much water?	How much bleach?					
	Household (4% chlorine)		Strong domestic (6% chlorine)		Commercial (10% chlorine)	
Concentration required (ppm)	50 ppm	100 ppm	50 ppm	100 ppm	50 ppm	100 ppm
Water temp	Warm	Cold	Warm	Cold	Warm	Cold
1 litre	1.25 ml	2.5 ml	0.85 ml	1.7 ml	0.5 ml	1 ml
10 litres	12.5 ml	25 ml	8.5 ml	17 ml	5 ml	10 ml
50 litres	62.5 ml	125 ml	42.5 ml	85 ml	25 ml	50 ml

Source: Cleaning and sanitising in food businesses, NSW Food Authority

[https://www.foodauthority.nsw.gov.au/sites/default/files/Documents/industry/cleaning\\_sanitising\\_food\\_businesses.pdf](https://www.foodauthority.nsw.gov.au/sites/default/files/Documents/industry/cleaning_sanitising_food_businesses.pdf)

[https://www.cityofsydney.nsw.gov.au/data/assets/pdf\\_file/0011/108398/ISCRFG-CleaningSanitising.pdf](https://www.cityofsydney.nsw.gov.au/data/assets/pdf_file/0011/108398/ISCRFG-CleaningSanitising.pdf)

#### ALWAYS USE SANITISER ACCORDING TO MANUFACTURER'S INSTRUCTIONS

Examples of effective cleaning and sanitising practices include:

1. Using a dishwasher on the hottest washing settings

NOTE: all the recommended steps must still be followed:

- Remove waste
  - Clean cycle using appropriate dishwasher chemical
  - Operating using the hottest rinse cycle available (washing using the economy cycle on a domestic dishwasher is not adequate)
  - Leave to dry.
  - A visual check should be done of equipment and utensils when removed from the dishwasher to ensure they are clean.
  - Dishwasher should be regularly maintained and serviced according to manufacturer's instructions
2. Food preparation surfaces and equipment (benches, mixers, utensils)
    - Wipe down
    - Wash with hot soapy water
    - Rinse to remove cleaning chemical and any extra food waste
    - Wipe down with sanitiser e.g. Commercial bleach (10% chlorine) – 1 ml in 1 L cold water for 7 seconds.

## Dishwashers and cleaning and sanitising

Food businesses will often use dishwashers to clean plates, cutlery and glassware.

The Food Standards Code does not provide guidelines or regulations around the use of dishwashers, so you should ensure the cleaning and sanitising process is sufficiently robust to meet the guidelines elsewhere in this module.

Dishwashers typically use heat to sanitise the items they clean. Domestic dishwashers generally use lower rinse temperatures than commercial dishwashers but use a longer heat cycle to compensate for these lower temperatures. Commercial dishwashers will have a specific sanitising setting. This setting is designed to spray water over 80°C until the temperature of the items being cleaned achieve a sanitising temperature (the exact temperature might be 71°C for United States standards or 80°C for European standards).

Some dishwashers may also have a chemical sanitiser step in their wash cycle. It is important to follow the manufacturer's instructions on what an appropriate sanitiser is and follow the sanitiser instructions when adding to the dishwasher.

The hottest and longest dishwasher program is recommended (e.g. 'hygienic wash' or equivalent heavy-duty, high-intensity settings). This is because lighter or shorter settings may not reach a hot enough temperature for long enough to sufficiently reduce microorganism levels.

If your business uses a dishwasher, you should find out what the sanitising process is within the dishwasher's program, so you know whether to add your own sanitiser steps.

If your dishwasher does not reach a high enough temperature for long enough, you should ensure there is still a sanitising step such as a very high temperature (over 77°C for at least 30 seconds) water bath or applying a chemical sanitiser and rinse.

Domestic dishwashers are not typically suitable for most commercial retail/hospitality food businesses.

## Maintaining effective cleaning and sanitising

To maintain effective cleaning and sanitising of premises, it is important to have a written schedule that defines all surfaces, equipment and utensils and how they are to be cleaned.

The cleaning schedule should include:

- Written instructions
- Equipment and area/s to be cleaned
- Frequency of cleaning
- Person/s responsible
- Cleaning and sanitising agents (concentration, temperature and contact time)
- Precautions against the contamination of food and ingredients.

In a successful cleaning program, staff must be trained adequately and receive refresher training on a regular basis.

Inner Sydney Councils Regional Food Group – Cleaning and sanitising fact sheet

[http://www.cityofsydney.nsw.gov.au/data/assets/pdf\\_file/0011/108398/ISCRFG-CleaningSanitising.pdf](http://www.cityofsydney.nsw.gov.au/data/assets/pdf_file/0011/108398/ISCRFG-CleaningSanitising.pdf) - provides guidance on developing a cleaning schedule.

### Learning Activity 3

Using your workplace as the example, fill the frequency section of the Cleaning schedule below. The first one has been completed as an example.

Discuss your answers with other students or colleagues.

Area to be cleaned	Frequency	Process	Product	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Floors & storerooms	End of shift or after spillage	Broom, clean floor. Mop with detergent. Rinse clean water.	Detergent							
Food contact surfaces- benches etc.		Rinse with warm water. Apply chemical sanitiser (to manufacturer's concentration). Rinse with warm water to remove residues	Warm water  Sanitiser							
Utensils used to serve and/or prepare foods		Rinse off excess food. Detergent with warm water. Sanitise.	Detergent  Sanitiser							
Bain maire		Wipe over. Detergent with warm water. Sanitise food contact surfaces	Detergent  Sanitiser							
Stove top/stove sides/deep fryers		Warm water & detergent	Detergent							
Cool room outside/ internally		Warm water & detergent	Detergent							
Garbage bins within food preparation area		Empty bin, replace the liner	Bin liner							

Walls, fans, exhaust heads, cupboards, light fittings, shelving		Sponge down with detergent. Rinse with clean water	Detergent							
Areas beneath & behind stove/grill/ deep fryers & equipment		Broom, clean floor. Mop with detergent	Detergent							

Following cleaning and sanitising, you and your staff should use a checklist approach to ensure the effectiveness of the process.

Checks should include:

- Visual checks to ensure items are free of any foreign material
- That there are no visual signs of chemical/cleaning residue i.e. not cloudy or dull residue. The surface should be shiny
- The surface should be dry.

### Compromising the cleaning and sanitation process

Not following procedures, and / or taking shortcuts will compromise the cleaning and sanitising process in the following ways:

- Residual food will encourage the growth of bacteria
- Increase the food safety risk to your customers because bacteria or allergens aren't removed

These incidences are a VERY high risk to your customers as they cannot be traced through product knowledge and labelling.

## References

Safe Food Australia, FSANZ

<https://www.foodstandards.gov.au/publications/Pages/safefoodaustralia3rd16.aspx>

Cleaning and sanitising in food businesses, NSW Food Authority

[https://www.foodauthority.nsw.gov.au/sites/default/files/ Documents/industry/cleaning\\_sanitising\\_food\\_businesses.pdf](https://www.foodauthority.nsw.gov.au/sites/default/files/ Documents/industry/cleaning_sanitising_food_businesses.pdf)

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