



# Cleaning and Sanitising in a Food Business



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## INTRODUCTION

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The aim of this document is to provide retail food businesses with information on cleaning and sanitising in a food premises.

The key aspects about how to effectively sanitise are discussed, including:

- The correct methods of sanitising;
- Diluting a chemical sanitiser;
- Applying a chemical sanitiser to equipment, utensils and surfaces.

All food businesses are required to comply with the requirements of Food Standards Code 3.2.2 and 3.2.3. It is encouraged that the Code be read in conjunction with this resource.



## LEGISLATION

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The food laws in NSW are the *Food Act 2003*, Food Regulation 2015 and Food Standards Code.

To protect consumers from the risk of foodborne illness, businesses need to comply with Standards 3.2.2 and 3.2.3 of the Food Standards Code.

Authorised officers assess safe food handling practices of a business against these standards by using the Food Premises Assessment Report, which was produced by the NSW Food Authority.

## FOOD STANDARDS CODE 3.2.2

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### 19 Cleanliness

(1) A food business must maintain food premises to a standard of cleanliness where there is no accumulation of:

- (a) Garbage, except in garbage containers;
- (b) Recycled matter, except in containers;
- (c) Food waste;
- (d) Dirt;
- (e) Grease; or
- (f) Other visible matter.

(2) A food business must maintain all fixtures, fittings and equipment, having regard to its use, and those parts of vehicles that are used to transport food, and other items provided by the business to purchasers to transport food, to a standard of cleanliness where there is no accumulation of:

- (a) Food waste;
- (b) Dirt;
- (c) Grease; or
- (d) Other visible matter.

### 20 Cleaning and sanitising of specific equipment

(1) A food business must ensure the following equipment is in a clean and sanitary condition in the circumstances set out below:

- (a) Eating and drinking utensils – immediately before each use; and
- (b) The food contact surfaces of equipment – whenever food that will come into contact with the surface is likely to be contaminated.

(2) In subclause (1), a 'clean and sanitary condition' means, in relation to a surface or utensil, the condition of a surface or utensil where it:

- (a) Is clean; and
- (b) Has had applied to it heat or chemicals, heat and chemicals, or other processes, so that the number of microorganisms on the surface or utensil has been reduced to a level that –
  - (i) Does not compromise the safety of the food with which it may come into contact; and
  - (ii) Does not permit the transmission of infectious disease.



## CLEANING AND SANITISING DEFINED

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In the food industry, cleaning and sanitising is a two-step process. A surface needs to be thoroughly cleaned before it can be effectively sanitised.

### **Cleaning is defined as:**

*the use of warm to hot water, detergent and physical action to remove food debris and dissolve grease and dirt to ensure the surfaces are clean to touch and free of visible matter and odours.*

### **Sanitising is defined as:**

*the process of applying heat (usually very hot water) or chemicals or a combination of both heat and chemicals, to an already clean surface to reduce the number of bacteria and other organisms to a safe level.*

## WHY DO I NEED TO CLEAN?

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Cleaning is an important part of operating a food business. Bacteria that cause illness are commonly found on raw foods. The bacteria on these foods can be transferred to surfaces and equipment that comes into contact with them.

During the cleaning stage, detergents ensure food particles are broken down and removed from surfaces that are used for food preparation.

Cleaning requires the use of warm to hot water, detergent and physical action to remove food debris and dissolve grease and dirt to ensure the surfaces are clean to touch and free of visible matter and odours.

Effective cleaning is 90 percent of the overall sanitation effort as cleaning removes most of the bacteria present.

A clean food premises will also reduce the availability of food sources for pests.

## WHY DO I NEED TO SANITISE?

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Sanitising is the final step in reducing bacteria in a food premises.

All food contact surfaces and food processing equipment must be sanitised to kill the remaining bacteria on surfaces.

During sanitising, a chemical sanitiser is usually required at the correct concentration to kill bacteria. Effective sanitising can only be achieved after thorough cleaning.

Proper cleaning and sanitising will help protect you and your customers against the spread of bacteria and can stop your customers from getting sick.

## WHAT IS A CHEMICAL SANITISER?

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- To be effective in a food premises, a sanitiser should kill 99.99 percent to 99.999 percent of bacteria.
- There are many different types of sanitiser. The most common chemical sanitisers are chlorine-based products, such as hypochlorite (also known as bleach), and quaternary ammonium products.
- Other chemicals may be effective if correctly prepared and used. If bleach is used as a chemical sanitiser only plain unscented bleach should be used.

## WHAT DOES “DILUTION RATE” MEAN?

Diluting a sanitiser to the correct concentration is critical in preventing the spread of harmful bacteria that cause foodborne illness.

Diluting sanitiser is the process of mixing the chemical with water. Most chemical sanitiser require this to be performed before applying the chemical. Clear and detailed instructions on how to correctly make up and use chemical sanitisers must be either on the label of the sanitiser or provided by the supplier in a product information sheet.

There are many different types of sanitiser and each will vary greatly in how they should be used. Always make up and use chemical sanitisers by strictly following the manufacturer’s instructions.

The active chemical in sanitisers loses strength over time. It is recommended to prepare a fresh batch of sanitiser used in spray bottles every 24 hours, or as specified in the manufacturer’s instructions.

Ensure that sanitising spray bottles are labelled correctly. Best practice is to label spray bottles with the name of the product and when it was made up.

## DILUTING BLEACH AS A SANITISER

To calculate the amount of bleach required for containers, simply multiply the appropriate bleach amount by the number of litres in any given container.

### Examples:

How much 4% chlorine bleach do I need to add to a 500ml bottle of cold water?

**Answer:** 500ml = 0.5L. Therefore 2.5ml x 0.5 = 1.25ml

How much 4% chlorine bleach do I need to add to a 7 litre bucket of cold water?

**Answer:** 2.5ml x 7 = 17.5ml

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

# DILUTING SANITISER IN A SINK

Calculate the working volume of the sink by either:

1. Filling a container of known quantity (e.g. a 10 litre bucket) with water, fill and pour it into a sink the desired number of times and mark the sink at the right level

For example, six times to make up 60 litres sink volume

OR

2. Calculating the capacity of a square or rectangular sink by measuring the length, width and depth of the sink (how high you fill the sink up to) in centimetres

- i. Multiply these three measurements to get the volume in cubic centimetres
- ii. Divide your answer by 1000 to determine the number of litres the sink will hold.

For example, a rectangular sink 40 cm wide, 50 cm long and filled to a height of 30 cm:

- $40 \times 50 \times 30 = 60,000 \text{ cm}^3$
- $60,000 \text{ divided by } 1000 = 60 \text{ litres sink volume}$



Example	$40 \times 50 \times 30$ $= 60,000 \text{ cm}^3$	
	$60,000 / 1000$ $= 60 \text{ litres}$	



## CORRECT METHODS OF SANITISING

Food processing equipment and surfaces such as kitchen benches, knives, chopping boards, pots, and meat slicers, as well as eating and drinking utensils all need to be sanitised.

The method of cleaning and sanitising can be done mechanically using dishwashers and/or manually using wash up sinks and spray bottles.

In this section, the different methods of cleaning and sanitising are explained. All retail food businesses should apply at least one of the following methods to ensure an effective cleaning and sanitising program is in place.

## CLEANING AND SANITISING WITH A DISHWASHER

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All commercial dishwashers operate differently.

High temperature dishwashers sanitise using heat (hot water) while low temperature dishwashers are complemented with chemical sanitisers.

Food businesses should use the program that the manufacturer has specified for sanitising.

**To sanitise with a dishwasher:**

1. Make sure you have a suitable dishwasher that can clean and sanitise quickly and effectively. Domestic dishwashers are generally not suitable and are impractical for busy retail or hospitality food businesses due to the very long cycles required to compensate for the lower appliance temperatures.
2. Use the correct type of detergent or sanitiser as outlined in the manufacturer's instructions.
3. Use the hottest rinse cycle possible as per the manufacturer's instructions.
4. Look over equipment and utensils when removing them from the dishwasher to check they are clean.
5. Clean the dishwasher so there is no build-up of food residues, including filters.
6. Regularly maintain and service the dishwasher according to the manufacturer's specifications.



## CLEANING AND SANITISING USING A SINK

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All surfaces required to be sanitised should be completely covered with the sanitising solution using immersion (dipping) in a sink or using a spray.

Special attention should be given to equipment with surfaces that are difficult to get to, such as stab mixers, blenders, meat slicers and can openers.

- Equipment may need to be dismantled, per manufacturer's instructions, to access the parts that need to be sanitised.
- Equipment that cannot be effectively cleaned and sanitised should not be used in a food business.

After sanitising, utensils and food surfaces should be thoroughly dried:

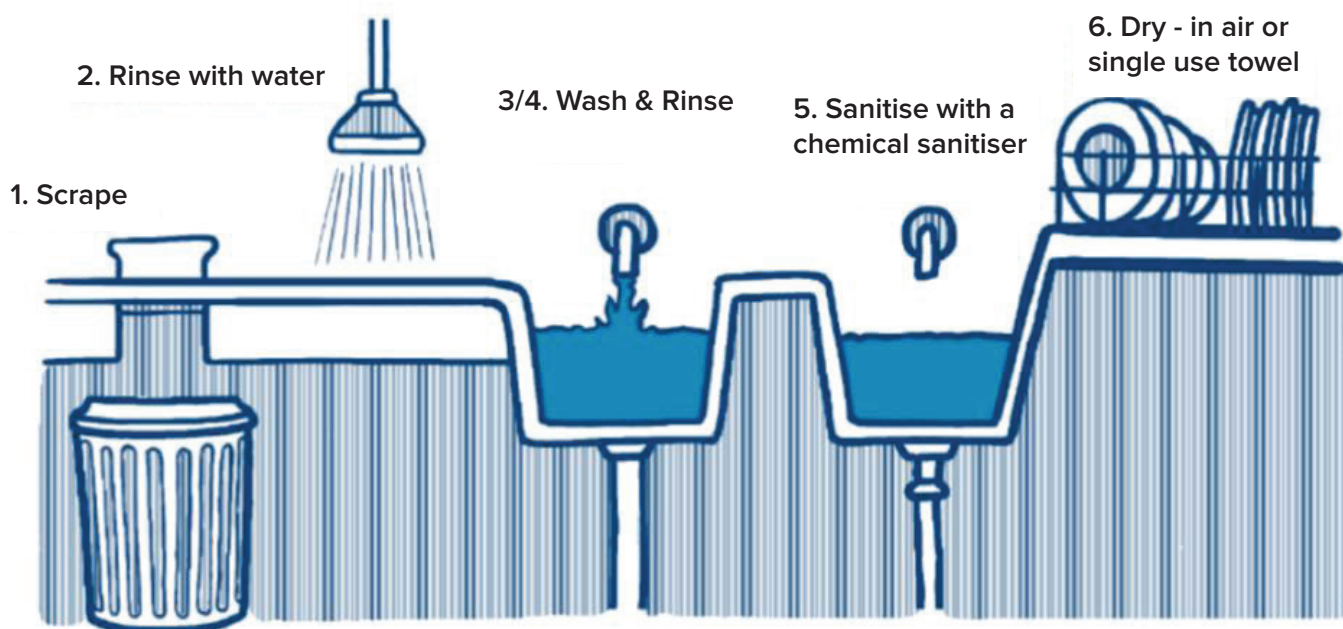
- Wet surfaces pick up dirt or other contaminants more easily than dry surfaces.
- Air drying is preferable otherwise use clean, dry, single-use towels.
- Never use a tablecloth to dry clean utensils and equipment.
- Care should be taken not to re-contaminate sanitised utensils and equipment, e.g. by ensuring they are stored using clean hands and in a clean and sanitary place.

## STEPS FOR CLEANING AND SANITISING USING A SINK

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The six recommended steps for effective cleaning and sanitising using sinks are:

1. Scrape or wipe away food scraps
2. Rinse with water
3. Wash using warm to hot water and detergent to remove grease and dirt. Soak if needed
4. Rinse off any loose dirt or detergent residue (sanitisers will not work well in the presence of food or detergent residues)
5. Sanitise by soaking in either hot water (77°C for 30 seconds) or with a chemical sanitiser:
  - Make up the sanitising solution as per manufacturer's instructions.
  - Soak equipment into the sanitising solution, (make sure you allow the appropriate contact time for the sanitiser to work).
  - Follow manufacturer's instructions.
  - For larger items that won't fit in the sink use spray bottles to apply the sanitising solution to equipment.
  - Wash off the sanitiser if necessary as per manufacturer's instructions.
6. Dry in air or use single use towels.





## APPLYING A CHEMICAL SANITISER TO A FOOD CONTACT SURFACE

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All surfaces in a food premises require sanitising.

- Surfaces that contact food during food preparation, such as fixed benches in the kitchen
- Surfaces that food handlers touch in the kitchen, such as fridge door handles and hand wash basin taps
- Surfaces that customer come into contact with, such as tables, condiments and communal areas toilet

All surfaces must be cleaned first as sanitisers do not work well in the presence of food residues or other detergents.

Certain sanitisers require a surface to be rinsed after applying sanitiser. This will be specified in the manufacturer's instructions. Alternatively, a "no rinse sanitiser" can be sourced from suppliers.



## FURTHER RESOURCES

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### Safe Food Australia – A guide to the Food Safety Standards

[www.foodstandards.gov.au/publications/Pages/safefoodaustralia3rd16.aspx](http://www.foodstandards.gov.au/publications/Pages/safefoodaustralia3rd16.aspx)

Safe Food Australia is a guide to the food safety standards in Chapter 3 of the Food Standards Code. Cleaning and sanitising are covered under Standard 3.2.2 clauses 19-21 and Appendix 6.

### Using chemical sanitisers

[www.foodauthority.nsw.gov.au/sites/default/files/\\_Documents/industry/using-chemical-sanitiser-in-your-food-business.pdf](http://www.foodauthority.nsw.gov.au/sites/default/files/_Documents/industry/using-chemical-sanitiser-in-your-food-business.pdf)

### Cleaning and sanitising in a food business

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



For more information or advice, please contact  
City of Ryde's Environmental Health Team – **9952 8222**  
Email – [cityofryde@ryde.nsw.gov.au](mailto:cityofryde@ryde.nsw.gov.au)  
Visit – [www.ryde.nsw.gov.au/FoodSafety](http://www.ryde.nsw.gov.au/FoodSafety)