

## CLEANING & SANITIZING

Cleaning and sanitizing reduces the number of microorganisms to safe levels. Cleaning is the physical removal of oil, grease, dirt, using soap, water, and friction. A surface can look clean, but unsafe levels of microorganisms can remain. Food-contact surfaces also need to be sanitized after cleaning. Both steps are needed and both must be done properly. The order to properly clean and sanitize food-contact surfaces is: **wash, rinse, sanitize**.

Equipment cleaning and sanitizing should be done often enough to prevent the accumulation of food residue and other debris. For equipment used continuously at room temperature, cleaning and sanitizing should be done at minimum **every 4 hours**.



### Cleaning Steps:

- Mix warm water and detergent
- Use friction to remove food debris
- After cleaning, rinse utensils with clean hot water at least 45°C (113°F)

### Sanitizing Steps:

- 2 ways to sanitize:
  - ✓ **1)** very hot water at least 77°C (171°F), or
  - ✓ **2)** approved chemicals mixed with water at least 45°C (113°F)
- Utensils and food-contact surfaces must be in contact with hot water or chemicals for at least 2 minutes
- Use a thermometer or chemical test strips to ensure your sanitizer or sanitizing solution is working
- Follow manufacturer's directions when using chemicals to sanitize
  - Not mixing enough chemicals won't kill microorganisms, mixing too much could leave chemical residue behind which could cause chemical contamination

### ★ REMINDER ★

The purpose of sanitizing is to reduce harmful micro-organisms to safe levels.

## Types of Chemical Sanitizers:

### Chlorine-Based Products

- ✓ Commonly made from household bleach (5%)
- ✓ Required strength for sanitizing utensils in sink: 100ppm (parts per million)
- ✓ **To make 100ppm concentration, mix 2mL (about half a teaspoon) of household bleach with 1L of clean water**

### Quaternary Ammonium-Based Products

- ✓ Sometimes called 'quats'
- ✓ Required strength for sanitizing utensils in sink: 200ppm
- ✓ To make 200ppm concentration follow manufacturer's label directions
- ✓ You may need to rinse food-contact surfaces after sanitizing with quats

### Iodine-Based Products

- ✓ Required strength for sanitizing utensils in a sink: 25ppm
- ✓ To make 25ppm concentration follow manufacturer's label directions

## **GENERAL DISHWASHING PRACTICES**

There are three methods of dishwashing depending on the type of dishes a food premises uses:

- A. 3-compartment sink manual dishwashing (where customers provided multi-use utensils)
- B. 2-compartment sink manual dishwashing (where customers provided single-use utensils)
- C. Mechanical dishwashing (dishwasher)

### **A. Cleaning and Sanitizing Utensils Using a 3-Compartment Sink**

- 1) Scrape and pre-soak dishes
- 2) **FIRST SINK (WASH):** wash using detergent and clean water at least 45°C (113°F)
  - Make sure detergent solution capable of removing soil
  - Detergent, acid, or abrasive cleaner can be used
  - Use friction
- 3) **SECOND SINK (RINSE):** Thoroughly rinse using clean water at least 45°C (113°F)



- 4) **THIRD SINK (SANITIZE):** Sanitize using either:
- Hot water at least 77°C (171°F) or a chemical solution in water at least 45°C (113°F)
    - Note: if using iodine, the sanitizing solution must be between 24°C (75°F) to 45°C (113°F)
  - **At least 2 minutes contact time with sanitizer required**
  - Test strips required for determining if proper sanitizer concentration is maintained. Check at least every 2 hours. Make a fresh sanitizing solution when required
- 5) Air dry on non-porous, sloped drainage racks
- Towel drying is not recommended
  - Make sure cloths and towels for washing are in good repair, clean, and used for no other reason
  - Dishware should be dry and cool before storage
  - Wash hands before handling clean dishware
  - Damaged dishes should be thrown away

## **B. Cleaning and Sanitizing Utensils Using a 2-Compartment Sink**

You can use a 2-compartment sink if:

- ✓ Single-use utensils are provided to customers instead of multi-use utensils and are discarded after each use
- ✓ You do very little food preparation and use few utensils
- ✓ You have pots and pans too large for a mechanical dishwasher
- ✓ Clean and sanitize using same steps as a 3-compartment sink, except after washing utensils in first sink, rinse off suds with tap water over-top the first sink



## **C. Mechanical Dishwashing**

Two kinds:

- 1) Low-Temperature Machines
- 2) High-Temperature Machines



1. Low temperature machines use chemical sanitizers in the rinse cycle to sanitize. Chemical sanitizers must be maintained at regulated concentrations (i.e. 100ppm for chlorine, 200ppm, for quats, and 25ppm for iodine)
2. High temperature machines use hot water in the rinse cycle to sanitize. The water in this cycle must reach **82°C (180°F) or higher for at least 10 seconds**

The wash water cycle of both high temperature machines and low temperature machines must reach **between 60°C (140°F) and 71°C (160°F)**.



### Proper Use of a Dishwasher:

- ✓ Test strips for measuring the sanitizer in the rinse cycle must be on hand and used frequently
- ✓ Check temperature dials frequently to make sure proper temperatures are being reached
- ✓ Don't overload a dishwasher
- ✓ Cutlery should be mixed to prevent 'nesting'
- ✓ Clean and maintain washing equipment regularly
- ✓ Invert cups, bowls, glasses prior to running through dishwasher
- ✓ Follow manufacturer's directions for proper dishwasher operation
- ✓ Dishwashers can accumulate chemical residues, dirt, food debris and pathogens. To prevent contamination to utensils and ensure effective operation of the dishwasher, frequent cleaning and maintenance is required. Follow manufacturer's instructions



### After Washing Dishes:

- ✓ Wash hands before putting away clean dishes
- ✓ Store clean dishes on surfaces that are cleaned and sanitized
- ✓ Keep them away from dust, garbage or splashes and at least 15 cm (six inches) off the floor
- ✓ Cover cutlery (forks, knives and spoons) and keep glasses upside down
- ✓ Upside down glassware should be stored on material that prevents air from being trapped inside glass
- ✓ Don't put clean dishes away until they are dry and cool
- ✓ Remember, to wash your hands before handling clean dishes
- ✓ Damaged dishes (cracked, chipped or warped) can't be used because they're a physical hazard. They should be thrown away

## 'CLEAN-IN-PLACE' (CIP) EQUIPMENT

Some equipment cannot be cleaned and sanitized in a sink because of its large size (ex. cutting boards, tables) or because of its electrical components (ex. deli slicers). These items need to be 'Cleaned-in-Place' (CIP).

- ✓ CIP equipment must be sanitized at **twice the concentration** used for sanitizing other utensils in a sink
- ✓ **To prepare a 200ppm concentration of chlorine sanitizer, mix 4mL of household bleach with 1L of clean water.** To prepare a 400ppm concentration of quaternary ammonium sanitizer and 50ppm concentration of iodine sanitizer refer to manufacturer's label directions



- ✓ Keep a sanitizing solution on hand in a bucket or labeled spray bottle, mixed to the proper strengths (i.e. 200ppm for chlorine, 400ppm for quaternary ammonium, or 50ppm for iodine)
- ✓ Keep wiping cloths in bucket of sanitizing solution between uses to keep bacteria from growing on the cloth
- ✓ Cleaning/sanitizing solutions must contact all interior surfaces of CIP equipment
- ✓ Equipment must be capable of completely draining the cleaning/sanitizing solution
- ✓ Inspection of access points required to ensure proper cleaning achieved
- ✓ Check concentration of CIP sanitizer frequently. It is recommended to check at least every 2 hours. Make a fresh solution if concentration is too weak



## CLEARING AND CLEANING TABLES

### Between customers:

- ✓ Discard used food
- ✓ Discard any single-use utensils and wash all dishware even if it doesn't appear used
- ✓ Tables should be cleaned using a damp cloth or paper towel with a sanitizing solution of sufficient strength (i.e. 200ppm for chlorine, 400ppm for quaternary ammonium, or 50ppm for iodine) and wiped with
- ✓ Change table linens

## SANITATION PLAN

All food premises operators in BC are required to have a sanitation plan. A sanitation plan is a set of written procedures to help ensure the safe and sanitary operation of the facility.



### **3-Components of a Sanitation Plan**

#### **1. A list of cleaning and sanitizing agents**

- ✓ List the cleaning and sanitizing agent(s) that will be used, how they will be mixed and what they will be used to clean and sanitize
- ✓ Cleaning and sanitizing agents need to be used according to manufacturer's instructions
- ✓ Discuss methods of monitoring sanitizer concentrations with your supplier or health inspector

#### **2. A list of pesticides**

- ✓ If you will be using any pesticides provide a list of the products, how they will be used and where they will be stored. If a professional pest control company will be used indicate this in your plan

#### **3. A cleaning schedule**

- ✓ A cleaning schedule is a written plan that describes the daily, weekly and monthly cleaning and sanitizing requirements of the establishment, equipment and utensils
- ✓ The cleaning schedule should include the following details:
  - What will be cleaned?
  - Who is responsible for cleaning it?
  - When it should be cleaned and how often?
  - How the cleaning should be done?
- ✓ There is no standard format for writing a cleaning schedule. Choose a format that works best for you and your staff
- ✓ For equipment or areas of the establishment that require specific cleaning and sanitizing instructions you may choose to include an individualized cleaning schedule



### **Additional Considerations:**

#### **• Record keeping**

Keep written records of when the establishment, equipment and utensils have been cleaned and sanitized. These records will help to ensure that the cleaning schedule is being followed and that your premises is maintained in the best possible condition. Examples of sanitizing records to keep: dishwasher temperatures and sanitizing concentrations

#### **• Implementing your sanitation plan**

Educate your food handlers and any new employees about the sanitation plan. Ensure the sanitation plan is readily available in the establishment.