

What's the Risk?

Food residues on food-contact surfaces and equipment can provide an ideal environment for the growth of disease-causing bacteria, which can easily contaminate other foods. Soiled wiping cloths can also become a breeding ground for bacteria to be transferred to other surfaces. If food residues are not cleaned within the required frequency, bacteria may multiply to dangerous levels. Routine cleaning and sanitizing of food-contact surfaces and equipment is necessary to prevent the growth of bacteria.

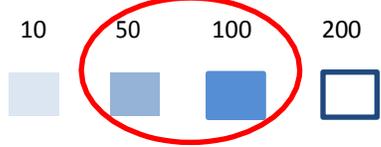
Sanitizer Solutions

| Type: | Concentration: | Temperature Range: | Residual | Note: |
|----------------------------------|--------------------------------|---|----------|---|
| Chlorine (Bleach)* | 50 to 100 ppm | 55°F-75°F | None | <ul style="list-style-type: none"> They are effective against all bacteria Do not use splashless, scented or non-chlorine/color safe bleach MORE IS NOT BETTER! |
| Quaternary Ammonia (QUAT) | Per manufacturer's instruction | Stable at high temperatures up to 100 F | Yes | <ul style="list-style-type: none"> Longer contact time is needed with this sanitizer, since it is slow-acting against some common spoilage bacteria. |
| Iodine | 12.5 to 25 ppm | | | <ul style="list-style-type: none"> Iodine compounds or iodophors are fast-acting and effective against all bacteria. Iodophor solutions may stain porous surfaces and some plastics |

**Follow manufacturer's label instructions; using sanitizers above recommended concentrations does not sanitize better and may corrode equipment. High concentrations can be unsafe and leave an odor or bad taste on surfaces. A suitable testing method must be available and used regularly to ensure correct sanitizer levels throughout the day. Every establishment must have appropriate sanitizer test kits available to monitor the sanitizer's concentration.*

Test Strips

IMPORTANT NOTE → Colors May Vary by Manufacturer

| | | |
|----------------------------------|--|--|
| Chlorine (Bleach)* | Range: 0-200 PPM | Color: White Test Strip  |
| Quaternary Ammonia (QUAT) | Per Manufacture Instructions Usually 0-500 PPM | Color: Peach Test Strip  |
| Iodine | Per Manufacture Instructions | Variable by type |

How to Sanitize

Buckets should be changed every 2-4 hours or more as needed to keep the water clean and the sanitizer effective in use.

Buckets/Containers

- Buckets that are easily identifiable (e.g. red buckets) and not used for any other purposes do not require labels. Buckets that are not easily identifiable must be labeled “sanitizer,” or the name of the chemical.
- Store buckets below and away from foods and food contact surfaces.
- **Keep wiping cloths stored in bucket with sanitizer solution when not being used.** Rags in use should test positive for sanitizer.
- Replace solutions when the concentration gets weak or when the solution becomes cloudy.
- Designate a separate sanitizer bucket strictly for raw animal product(s) where needed.



Spray Bottles

- Properly label spray bottle(s) “sanitizer,” or name of chemical.
- Never spray around open food and only where foods are protected with an impermeable cover.
- Replace solutions when the concentration gets weak or when the solution becomes cloudy.
- Allow for the appropriate contact time before wiping off.
- Use disposable cloths for use with spray bottles. Do not use cloth towels.

Test solutions with test strips regularly to ensure that they are maintaining the proper strength of sanitizer for food contact surfaces.

There are 3 factors that influence the effectiveness of chemical sanitizers.

1. **Concentration** — not using enough sanitizing agent will result in an inadequate reduction of microorganisms. Using too much sanitizing agent can be toxic.
2. **Temperature** — generally chemical sanitizers work best at temperatures between 55°F (13°C) and 120°F (49°C). (See manufacturer’s recommendations for specific temperatures.)
3. **Contact time** — to effectively kill microorganisms, the cleaned item must be in contact with the sanitizer (either heat or approved chemical) for the recommended length of time.



This publication was issued by the Oklahoma State Department of Health (OSDH), an equal opportunity employer and provider. A digital file has been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries. Copies have not been printed but are available for download at www.health.ok.gov. | January 17, 2018

