

EQUIPMENT GUIDE

5-2019

2013 FOOD CODE

CLEANING & SANITIZING FREQUENCY

Equipment Food-contact Surfaces & Utensils

Each time there is a change from working with raw foods to working with ready-to-eat (RTE) foods.
 Between uses with raw fruits & vegetables and with time/temperature control for safety foods (TCS).
 Before using or storing food temperature measuring devices (TMDs).
 Any time when contamination may have occurred.

Before each use with different type of raw animal food, *except in contact with a succession of different raw animal foods each requiring a higher cooking temperature as specified under 3-401.11 than the previous food, such as raw fish followed by cutting/preparation of raw poultry.* 4-602.11

Preparation Room Temperature	Cleaning Frequency
41°F or less	24 hours
> 41°F to 45°F	20 hours
> 45°F to 50°F	16 hours
> 50°F to 55°F	10 hours

Chart Code Reference 4-602.11

***Refrigerated room temperatures and cleaning frequency to be documented**

Time/Temperature Control for Safety Foods, Food Contact Surfaces

At least every 4 hours. *Exceptions:*

*Clean when emptied for in-storage containers of PHF maintained at Chapter 3 temperatures/date markings.

*At least every 24 hours for containers in serving situations such as salad bars.

*In-use utensils intermittently stored in a container of hot water at ~135°F to be cleaned every 24 hours or more frequently to preclude accumulation of soil residues. 4-602.11

Not Time/Temperature Control for Safety Foods, Food Contact Surfaces

At any time when contamination may have occurred.

At least every 24 hours for iced tea dispensers and consumer self-service utensils.

Before restocking consumer self-service equipment & utensils such as condiment dispensers.

In enclosed components of equipment such as ice bins, ice makers, beverage nozzles & syrup dispensing lines/tubes, cooking oil storage tanks & distribution lines, coffee bean grinders, and water vending equipment, as specified by the manufacturer or as necessary to preclude accumulation of soil or mold. 4-602.11(E)

SANITIZATION: CONCENTRATION, pH, TEMPERATURE, HARDNESS & CONTACT TIME

Minimum Concentrations ppm or mg/L	pH ~ 10.0 & Minimum Temperature	pH ~ 8.0 & Minimum Temperature	Contact Time
Chlorine 25	120°F (49°C)	120°F (49°C)	~ 10 seconds
Chlorine 50	100°F (38°C)	75°F (24°C)	~ 7 seconds
Chlorine 100	55°F (13°C)	55°F (13°C)	~ 10 seconds
Iodine ~ 12.5 to 25	pH ~ 5.0 or per label; ~ 75°F (24°C)		~ 30 seconds
Quaternary Ammonium, per label	water hardness ~ 500 ppm or mg/L or per label; ~ 75°F (24°C)		
Hot Water Sanitize, 3 comp. sink heat integrating device	~ 171°F (77°C) immersed in rack or basket		

Chart Code Reference 4-501.114

NOTE: All chemical sanitizers shall be listed in 21 CFR 178.1010 Sanitizing Solutions and used in accordance with the EPA-approved manufacturer's label use instructions. 4-501.114



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WAREWASHING: MECHANICAL & MANUAL		Minimum Wash	Minimum Sanitizing
SPRAY TYPE WAREWASHERS: Single Tank, Hot Water Sanitize	Stationary rack, single temperature	165°F (74°C)	165°F (74°C) Manifold 160° F (71°C) Utensil surface
	Stationary rack, dual temperature	150°F (66°C)	180°F (82°C) Manifold
	Conveyor, dual temperature	160°F (71 °C)	160°F (71 °C) Utensil surface
Multi-tank, Hot Water Sanitize	Conveyor, multi temperature	150°F (66°C)	
CHEMICAL SANITIZER MACHINE	Any warewashing machine	120°F (49°C)	sanitization levels as stated in the above table or per labeled manufacturer's instructions on the container.
3 COMPARTMENT SINK	Cleaning agent labeling may permit lower washing temperatures	110°F (43°C)	

Chart Code Reference 4-501.110

MECHANICAL WAREWASHING:

1. As appropriate, washing, rinsing & sanitizing temperatures; fresh water sanitizing rinse pressure; conveyor speed or cycle time shall be in accordance with dish machine "data plate" and manufacturer's instructions. 4-204.113
2. Fresh hot water sanitization: the sanitizing rinse in a warewashing machine, as measured in the water line immediately downstream or upstream from the fresh hot water sanitizing rinse control valve, shall be within the range specified on the machine manufacturer's data plate and may not be less than 35 kilopascals (5 pounds per square inch) or more than 200 kilopascals(30 pounds per square inch). 4-501.113
3. Hot water entering the manifold for sanitizing may not be more than 194°F (90°C) {*except for hand-held spraying devices for in-place cleaning & sanitizing*}. 4-501.112
4. Chemical sanitization: units shall be equipped with an audible or visual "low level" sanitizer indicator to add more sanitizer.
4-204.117



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FOOD-CONTACT SURFACE LIMITATIONS:

GALVANIZED METAL: May not be used in contact with acidic food. 4-101.15

CAST IRON: *May be used as a cooking surface or serving utensils only as part of an uninterrupted process from cooking through service.* 4-101.12

COPPER & COPPER ALLOYS (BRASS): May not be used for foods with a pH below 6.0 such as vinegar, fruit juice, wine, etc., {except for the prefermentation & fermentation steps of a beer brewing operation} or for a water supply line between a soda carbonator & backflow preventer. 4-101.14

WOOD: Wood & wood wicker may not be used as a food-contact surface. 4-101.17

Except:

1. *Hard maple or equivalently hard, close-grained wood may be used for cutting boards & blocks, bakers' tables, and utensils such as rolling pins, doughnut dowels, salad bowls & chopsticks;*
2. *Wooden paddles for pressure scraping kettles in confectionery operations with products reaching at least 230°F (110°C).*
3. *Whole uncut raw fruit & vegetables and unshelled nuts may be kept in the original wooden shipping container.*
4. *Whole, uncut, raw foods requiring the removal of rinds, peels, husks, or shells may be kept in untreated wood containers or treated wood as specified in 21 CFR 178.3800 Preservatives for Wood.*

NONSTICK COATINGS: Cooking surfaces that have a perfluorocarbon resin coating shall be used with nonscoring or nonscratching cleaning aids. 4-101.18

SPONGES: May not be used in contact with cleaned & sanitized or in-use food contact surfaces. 4-101.16

LEAD LIMITATIONS:

Ceramic, China & Crystal	Hot Beverage or Coffee Mugs	Maximum Lead: 0.5 ppm or mg/L
	Large Hollowware, bowls ~1.16 qts or 1.1 L	1.0 ppm or mg/L
	Small Hollowware, bowls <1.16 qts or 1.1 L	2.0 ppm or mg/L
	Flat Utensils, plates & saucers etc.	3.0 ppm or mg/L
Pewter Alloys used as a food contact surface		.05%
Solder & Flux used as a food contact surface		.2%

Chart Code Reference 4-101.13



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FOOD TEMPERATURE MEASURING DEVICES (TMDs):

1. Designed to be easily readable and durable.
2. Food TMD's shall be provided & readily accessible for ensuring attainment & maintenance of food temperatures as specified under Chapter 3.
3. Food TMD's may not have sensors or stems constructed of glass, except stems encased in a shatterproof coating such as candy thermometers may be used. 4-201.12
4. Mechanically refrigerated or hot food storage units: equipped with at least one integral or permanently affixed, easily viewed TMD with sensors shall be located in the warmest part of the refrigeration unit and in the coolest part of a hot storage unit. Except where a TMD is not practical for measuring ambient air surrounding the food, such as heat lamps, cold plates, steam tables, salad bars and insulated food transport containers. 4-204.112
5. Warewashing machine TMD's to indicate water temperature in each wash and rinse tank; and entering the hot water sanitizing final rinse manifold or in the chemical sanitizing solution tank. 4-204.115

TMD Accuracy	Food	Ambient Air & Water
Fahrenheit/Celsius only	± 1°C	± 1.5°C
Fahrenheit only	± 2°F	± 3°F

Food or warewashing TMDs shall have a numerical scale, printed record or digital readout; increments are to be no greater than 2°F (1°C) in the intended range of use.

Chart Code Reference 4-203.11 and 4-203.12

