



Bleach concentrations for sanitizing, disinfection and use in outbreak settings

Background

The concentration of sodium hypochlorite (the active ingredient in bleach) has increased from 5.25-6.00% to 8.25%. While some stores may still carry the lower concentration of bleach, many companies plan to discontinue manufacturing the less concentrated bleach. Due to this concentration change, the dilutions of bleach have changed in order to achieve the same parts per million (ppm) that are effective at killing pathogens. It is important that the appropriate concentrations of bleach are used, because higher concentrations can be corrosive and irritating to the respiratory tract, skin and eyes; lower concentrations are not effective at killing pathogens.

Bleach is used at varying dilutions for sanitizing, routine disinfection, and norovirus disinfection. Refer to the appropriate regulations or guidance documents for additional information about the concentration needed for the task at hand. In general, sanitizing solutions should be used on food contact surfaces in restaurants and homes, toys, and other commonly handled items, such as doorknobs. Disinfecting solutions should be used in restrooms, on diaper changing tables in child care facilities, and to disinfect areas contaminated by bodily fluids. Around a case of norovirus, during outbreaks of norovirus, and during outbreaks of unknown viral gastroenteritis, the norovirus dilution should be used for disinfection.

For bleach to be effective, it must be applied at the appropriate dilution to a clean surface. The surface must stay wet for the entire contact time.

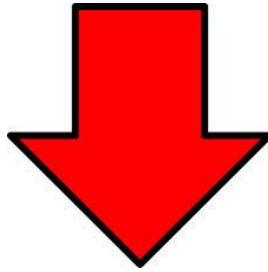
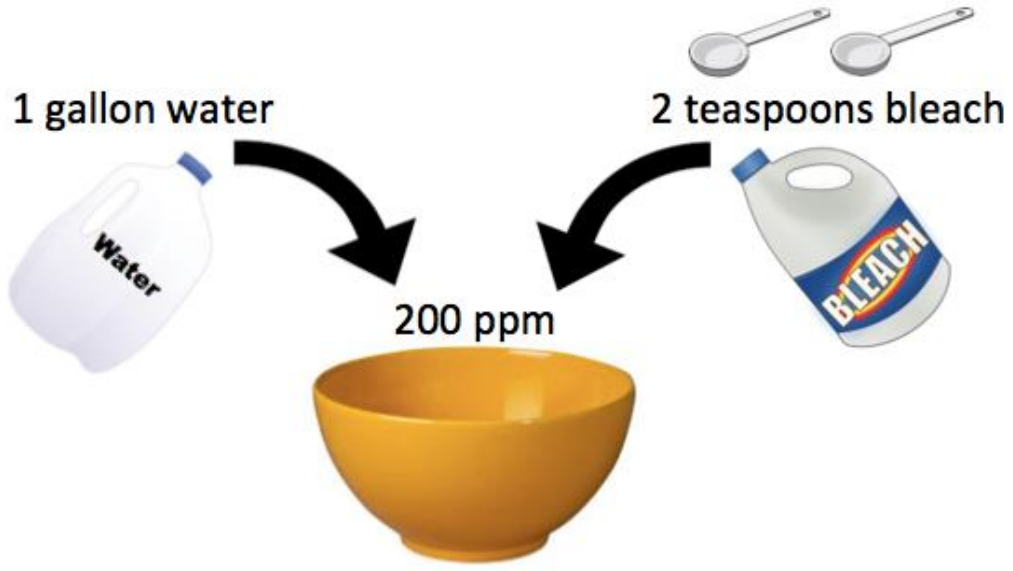
Proper Bleach Use

Purpose	Final ppm	Dilution	Contact time*	Follow up procedure
Routine Sanitizing (examples: food contact surfaces in child care facilities and restaurants)	50-200	½ teaspoon-2 teaspoons bleach: 1 gallon water**	2 minutes	Air dry or dry with paper towel.
Routine Disinfecting (examples: diaper changing areas in child care facilities and restaurant restrooms)	2400	½ cup bleach: 1 gallon water**	5 minutes	Air dry or dry with paper towel. Food contact surfaces and toys must be rinsed and sanitized.
Norovirus Disinfecting (examples: Norovirus outbreak or gastrointestinal outbreak of unknown etiology)	5000	1 cup bleach: 1 gallon water**	1 minute	Air dry or dry with paper towel. Food contact surfaces must be rinsed and sanitized.

***for the contact time, surface area must remain wet for entire time in order to be effective**

****1 gallon equals 16 cups**

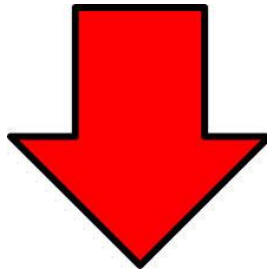
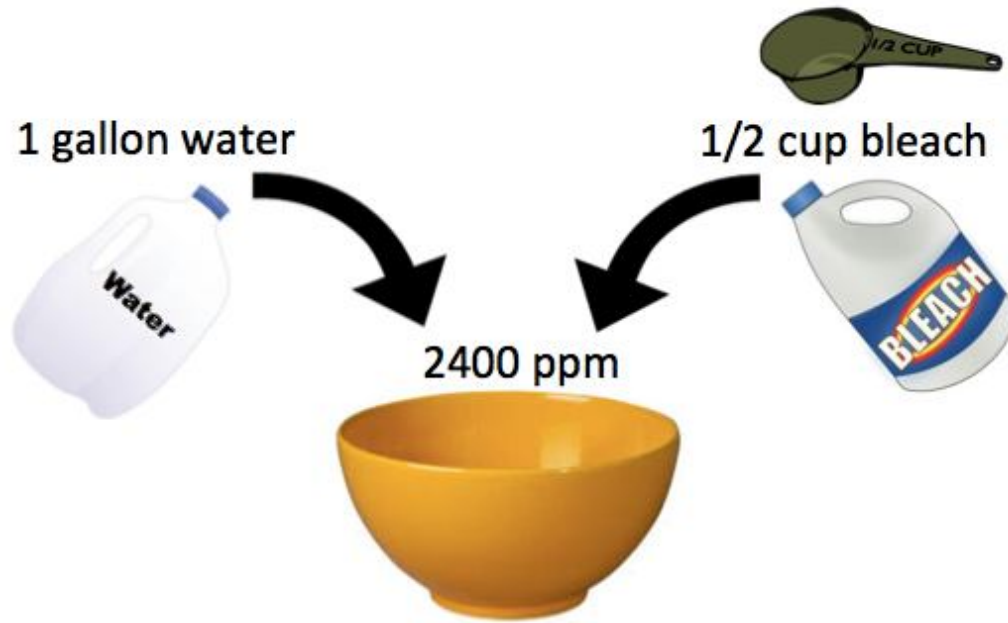
ROUTINE SANITIZING



2 minutes contact time



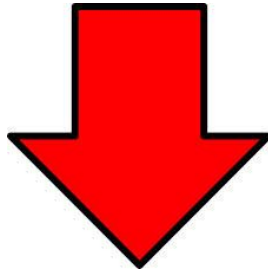
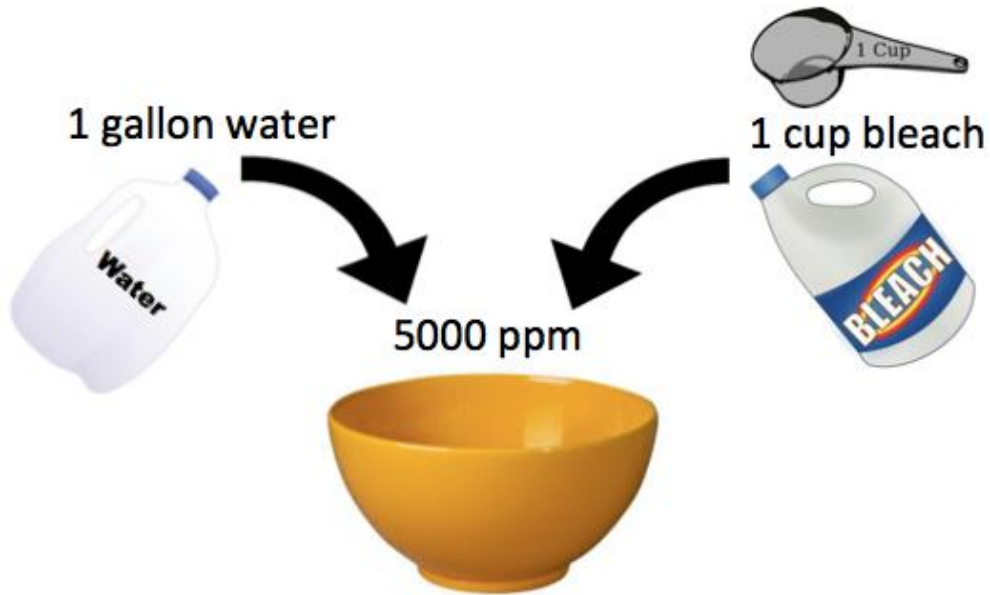
ROUTINE DISINFECTING



5 minutes contact time



NOROVIRUS DISINFECTING



1 minute contact time



References

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