

Disinfecting and Sanitizing with Bleach

Guidelines for Mixing Bleach Solutions for Child Care and Similar Environments

Follow these guidelines for mixing bleach and water solutions for sanitizing and disinfecting in child care and early learning settings:

- Prepare a fresh bleach solution each day in a well-ventilated area that is separate from children.
- Label bottles of bleach solution with contents, ratio, and date mixed.
- Use only plain unscented bleach. The label on the bleach bottle must provide the strength as a percent of Sodium Hypochlorite, such as 6.25% or 8.25%.
- Contact your local health jurisdiction for further instructions on cleaning and disinfecting if specific disease or organisms are identified as causing illness in your program.
- Always follow the three-step process.
 - **Clean** the surface with soap and water before disinfecting or sanitizing.
 - **Rinse** with clean water and dry with paper towel.
 - **Apply** the sanitizing or disinfecting strength bleach and water solution to the entire area.
- After using the sanitizing or disinfecting bleach solution, leave the surface wet for at least 2 minutes then allow it to air dry or wipe it dry with a clean paper towel.

Mix your solutions using the chart below. Chlorine test strips with a measuring range of 0-2000 ppm or higher can also be used to check the strength of the solution.

Disinfecting Solutions (~1000 ppm)			
For use on diaper change tables, hand washing sinks, bathrooms (including toilet bowls, toilet seats, training rings, soap dispensers, potty chairs), door and cabinet handles, etc.			
Amount of Water	Amount of bleach using bleach with a concentration of:		
	2.75 %	5.25-6.5 %	7.0-8.25 %
1 Gallon	$\frac{3}{4}$ cup	$\frac{1}{3}$ cup	$\frac{1}{4}$ cup
1 Quart	3 Tablespoons	4 teaspoons	1 Tablespoon

Sanitizing Solutions (~100 ppm)			
For use on eating utensils, food use contact surfaces, mixed use tables, high chair trays, crib frames and mattresses, toys, pacifiers, floors, sleep mats, etc.			
Amount of Water	Amount of bleach using bleach with a concentration of:		
	2.75 %	5.25-6.5 %	7.0-8.25 %
1 Gallon	1 Tablespoon	2 teaspoons	1 teaspoon
1 Quart	1 teaspoon	$\frac{1}{2}$ teaspoon	$\frac{1}{4}$ teaspoon

Consider Safer Products

There are products on the market that are safer than bleach. When possible, choose safer fragrance-free disinfectants and sanitizers. Hydrogen peroxide or alcohol-based products are safer for human health and don't cause asthma.

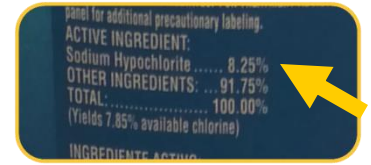


DOH Publication 970-216 May 2024

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How to Read the Bleach Chart

Bleach comes in several different concentrations. Because of this, the Washington State Department of Health has developed a chart to assist child care providers in mixing bleach water sanitizing and disinfecting solutions at the right concentrations. It is critical to look at the bleach bottle label to determine which concentration you have. You will need to find the percent sodium hypochlorite, which should look something similar to picture to the right.



Once you find out what percent bleach you have, you will need to look at the chart to determine the recipe for mixing it.

Chemical Safety

The following guidelines should be used when preparing and using bleach as a sanitizer and/or disinfectant:

- Wear gloves and eye protection when mixing chemicals.
- Prepare solution in an area with an eye wash that meets Washington State Department of Labor and Industry standards ([LNI DOSH 13.00](#)).
- Use cool water when mixing bleach. Add bleach to the water, not the other way around.
- Use a funnel when pouring bleach into the spray bottle to avoid spills.
- Make dilutions of sanitizer and disinfectant in a well-ventilated area. Never mix solutions in the classroom or where children are present.
- Never store incompatible chemicals in the same space. For example, bleach and ammonia products should never be mixed or stored together.
- Adjust spray bottles to a heavy spray setting, rather than a fine mist.
- Avoid applying disinfectant strength bleach and water solution when children are in the immediate area.
- Ensure your child care space has good ventilation. Check for proper ventilation if chemical odors are present.

Other Resources

- [Cleaning, Sanitizing, and Disinfecting for Child Cares: A Guide for Early Care and Education Providers](#) (DOH)
- [Safely Cleaning and Disinfecting Public Spaces](#) (DOH)
- [Classroom Cleaning Tips for Teachers](#) (DOH)
- [Design for the Environment Certification](#) (EPA)
- [Cleaning for Asthma-Safe Schools](#) (California Department of Public Health)
- [Safer Cleaning, Sanitizing, and Disinfecting Strategies to Prevent Infection Transmission](#) (University of Washington)

This chart was originally created in 2015 by the Washington State Disinfection Workgroup led by the Washington State Department of Health. Workgroup members consisted of staff from the Department of Early Learning, Snohomish Health District, Local Hazardous Waste Management Program in King County, Washington State Department of Ecology, the Coalition for Safety and Health in Early Learning, and the Washington State Department of Health.