



GUIDELINES FOR THE USE OF SANITIZERS AND DISINFECTANTS IN CHILD CARE FACILITIES

These general guidelines for applying the *Rules and Regulations Governing the Health and Sanitation of Child Care Facilities in the State of Colorado* are provided by the Colorado Department of Public Health and Environment, Consumer Protection Division. Additional information about the rules and regulations may be obtained by calling 303-692-3620, or visiting the division's web page – www.cdphe.state.co.us/cp/

HOW DO SANITIZERS DIFFER FROM DISINFECTANTS?

- All chemical sanitizing and disinfecting agents used in child care facilities **shall** be registered with the U. S. Environmental Protection Agency (EPA). The EPA registration number will be listed on the product's label, along with the manufacturer's claims (i.e., "kills germs such as E. coli.," etc.)
- The EPA classifies these products based on the number and stringency of tests they are required to pass. *Sanitizers* reduce the number of bacteria in one test by 99.99%. There are two types of sanitizers – those approved for use on food contact surfaces and toys and those not approved for use on food contact surfaces and toys. *Disinfectants* must be shown to be effective against 99.99% of bacteria in multiple tests. Disinfectants are further classified into three categories, depending on effectiveness: limited efficacy, general efficacy and hospital-grade disinfectants. Products registered as hospital-grade disinfectants will usually have label information indicating effectiveness against *Salmonella choleraesuis*, *Staphylococcus aureus* and *Pseudomonas aeruginosa*. The EPA requires that hospital-grade disinfectants are proven effective against these three organisms.
- In general, sanitizers are used on hard surfaces that require a reduction of microorganisms to levels considered safe. Sanitizers are most appropriate for use on surfaces that have not been contaminated with bodily secretions or excretions. Disinfectants should be used on hard surfaces to destroy infectious bacteria and fungi. *Hospital-grade disinfectants shall* be used on surfaces known to be or commonly contaminated with bodily secretions and excretions.

BLEACH – THE MOST COMMONLY USED SANITIZER/DISINFECTANT

The most commonly used and approved chemical sanitizing and disinfecting agent is **sodium hypochlorite** (chlorine bleach). Bleach can be used to sanitize or disinfect, depending on the dilution or concentration prepared. Determining whether a sanitizer or disinfectant should be used depends upon the type of contamination on the surface and the desired and/or required result. Common household bleach (i.e., Clorox) usually contains 6.00% sodium hypochlorite. If the label on the household bleach specifies a percentage of sodium hypochlorite other than 6.00%, the following recipe will not be accurate and the solution must be made according to labeled instructions. Chlorine test strips should also be used to verify the concentration of the sanitizer or disinfectant solution.

APPLICATION	6.00 % Sodium hypochlorite			
	Bleach Per Gallon of Water	Bleach Per Quart of Water	Concentration	Recommended Labeling
Disinfecting Strength - Diapering areas, surfaces contaminated with bodily secretions/excretions	3 ½ Tablespoons	2 ½ teaspoons	500-1000 ppm	Disinfectant – Diaper Changing Station
Sanitizing Strength - Food contact surfaces, areas not contaminated with bodily secretions/excretions	2 ½ teaspoons	¼ Tablespoon	50-200 ppm	Sanitizer – For Food Contact Surfaces and Toys

HOW DOES ONE KNOW IF A PRODUCT IS APPROVED?

There are a number of other chemical agents approved for sanitizing and disinfecting in child care facilities. One example is quaternary ammonia based products. To evaluate the use of a particular product, follow these guidelines:

For **diapering areas or other surfaces contaminated with bodily secretions or excretions (blood, vomit, feces, urine, sputum and mucus)**, the product is approved if:

- It is registered with the EPA as a hospital-grade disinfectant and provides the equivalent bactericidal and viricidal effect of ¼ cup of bleach per gallon of water and;
- It is used according to the manufacturer's instructions, including concentration and contact time.

For **food contact surfaces**, the product is approved if:

- It is registered with the EPA and;
- It is labeled for use on food contact surfaces without requiring a subsequent rinse step and;
- It is used according to the label instructions, including concentration and contact time and;
- The product is approved as an indirect food additive under Sanitizers, 21 CFR 178.1010. (See appendix G of the *Colorado Retail Food Establishment Rules and Regulations*.)

For other **surfaces not contaminated with bodily secretions or excretions (blood, vomit, feces, urine, sputum and mucus)**, the product is approved if:

- It is registered with the EPA and;
- It is used according to the label instructions, including concentration and contact time.

Toys that are mouthed but not contaminated with bodily excretions shall be sanitized in a manner similar to that used for food contact surfaces. Toys that are mouthed that **have** been contaminated with bodily excretions, should be disinfected, then rinsed and sanitized.

USE AND STORAGE OF SANITIZERS AND DISINFECTANTS

Working containers of solutions shall be labeled as sanitizing or disinfecting solutions and with their intended use. See the table above for suggested labeling. Enclosed working containers of sanitizers and disinfectants such as spray bottles, shall be prepared or tested daily to ensure the required concentrations are maintained. Bleach solutions that become contaminated with organic material or that are stored in open containers must be tested or prepared several times a day. Bulk and working containers of sanitizers and disinfectants shall be kept out of the reach of children.

Surfaces should be cleaned prior to applying any sanitizer or disinfectant. Specifically, surfaces shall be washed, then rinsed of soap and debris and then sanitized or disinfected by submerging or spraying with the appropriate solution and allowed to air dry. All chemical agents must remain wet on the surface for the contact time specified on the product's label.

SANITIZING AND DISINFECTING SOFT SURFACES AND LINENS

Soft furnishing and play equipment in rooms with toddlers and infants shall be equipped with removable covers that can be laundered. Soiled removable covers, clothing, linens and cloth toys shall be washed and sanitized, when soiled or disinfected, when contaminated with body excretions. To sanitize or disinfect, wash materials with hot water measured at a temperature of at least 140°F or with an approved laundry sanitizer or disinfectant. If hot water or a sanitizing or disinfecting agent is not used, linens and toys shall be dried completely in a clothes dryer on the highest heat setting possible.

ADDITIONAL INFORMATION AND GUIDANCE

All sanitizers and disinfectants must be used in a manner consistent with their labeling. If, after reading a label, you question its use, please do not hesitate to contact your local health department or the Consumer Protection Division at 303-692-3620. Guidance is also available from the National Pesticide Information Center at 1-800-858-7378.