

Guidelines for Using Bleach

Sodium hypochlorite is the chemical compound commonly known as bleach. Bleach is utilized as a component of the cleaning and disinfection protocol for many animal hospitals, shelters, and spay-neuter clinics. It is well-known for its ability to kill many bacteria, viruses and fungal hyphae (and at proper dilution, fungal spores). It is especially helpful for its ability to kill non-enveloped viruses, such as Canine Parvovirus, Feline Panleukopenia and Feline Calicivirus. The following guidelines should be followed when using bleach as a disinfectant to ensure its effectiveness:

- 1. Bleach must be applied to a surface that has previously been cleaned with an appropriate detergent.** Bleach is solely a disinfectant and can be inactivated by microscopic organic debris. Care must be taken to completely rinse all detergent residues and thoroughly dry the surface prior to applying bleach so as not to further dilute the bleach solution.
- 2. A 1:32 solution of regular household bleach (8.25% sodium hypochlorite) is appropriate for daily use.** Bleach solutions at concentrations less than this may not be effective. Bleach solutions at concentrations greater than this will cause facility corrosion and respiratory tract irritation in both people and animals.
- 3. Bleach solutions should be stored in opaque containers and must be made fresh at a minimum of every 24 hours.** Bleach rapidly degrades in the presence of light and when mixed with water.
- 4. Bleach solutions require a full 10 minutes of contact time to ensure complete disinfection.** If bleach solution evaporates in less than 10 minutes, a greater volume of solution should be applied.
- 5. After disinfection with bleach solutions, surfaces should be rinsed and dried.** Bleach can be irritating to skin and mucous membranes, so any residue should be removed prior to returning animals to the environment.

To make a 1:32 solution, add...

- 1/3 cup of bleach per gallon of water
- 17 ml of bleach (1 TBSP + ½ TSP) per 32 ounce spray bottle

If using bleach for periodic deep cleaning and/or for the purpose of killing fungal spores (e.g. ringworm), bleach should be diluted with water at a concentration of 1:10. *Note that studies have shown that disinfectants other than bleach may also be effective for this purpose.*

This is equivalent to:

- 1 cup of bleach per gallon of water, or
- ¼ cup of bleach per 32 ounces of water.

Animals must be removed from the area and people should wear appropriate personal protective equipment when using 1:10 bleach solutions!