

Managing Germs in the Kennel Environment

Choosing Your Disinfectant

Germ: A microorganism that can cause disease (e.g., bacteria, virus, fungus, or other small organism)

What does it mean to clean, disinfect, sanitize, or sterilize?

Cleaning: Physical removal of dirt and debris using water and a detergent such as soap

Sanitizing: Cleaning/disinfecting to lower the number of germs to a safe level

Disinfecting: Chemical cleaning that kills 99.9% of germs

Sterilizing: Removing all germs from a surface

Which disinfectant should I use?

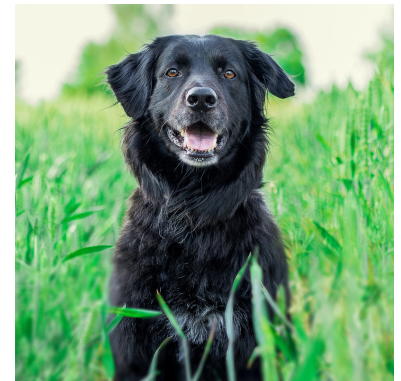
There are many disinfectants to choose from. Consider what germs you are hoping to remove when choosing a disinfectant. The disinfectant that you choose must be safe for dogs and humans.

Some viruses, bacteria, and parasites are not killed by disinfectants. Examples of resistant parasites include roundworms and coccidia.

Can I only choose one disinfectant?

Use one disinfectant per application! Using multiple disinfectants together can be dangerous. For example, do not mix the use of bleach and ammonia. Follow instructions for time between applications of different disinfectants.

Rotating different disinfectants can be useful to manage microbes in the kennel environment.



- To manage coccidia:**
- Practice preventative treatment with medications
 - Remove feces from dog kennels frequently
 - Use steam cleaning where possible

Efficacy and Safety of Common Disinfectants

Product	Parvovirus non-enveloped virus	Distemper enveloped virus	Leptospirosis bacteria	Brucellosis bacteria	Giardia parasite	Ringworm fungus	Okay for Pregnant or Lactating dams and puppies
Accelerated Hydrogen Peroxide (1:32 dilution)	✓	✓	No	No	Maybe*	✓ 1:16 dilution	✓
Bleach (sodium hypochlorite) (1:32 dilution)	✓	✓ 1:20 dilution	✓ 1:10 dilution	✓ 1:4 dilution	Yes*	✓ 1:10 dilution	✓ **
Calcium hypochlorite	✓	✓	✓	✓	Maybe*	No	✓
Potassium Peroxymonosulfate (1%)	✓	No	No	No	No*	✓ ***	Unknown
Quarternary Ammonia Compounds	No	✓	No	No	Yes*	✓ check label	Unknown

Note: Disinfectants must be used correctly (as indicated on the label) to be safe and effective in the ways described in this table

* Disinfecting products can only make limited claims about killing parasites on surfaces.

**Remove animals before cleaning, and let surfaces dry before returning them to disinfected kennels.

*** At 2% dilution, not effective for most common fungi in dogs.

Using Disinfectants

For a disinfectant to be effective and safe, you must use it correctly.

Follow all instructions on the product label.

Move animals to a different location before disinfecting an area of your kennels.

Clean all surfaces before using disinfectants.

Cleaning reduces pathogens on surfaces, and increases the efficacy of disinfectants.

- Wear recommended protective equipment such as gloves and masks during use
- Make sure there is adequate ventilation in the space you are disinfecting
- Create the appropriate concentration of the disinfectant
- Correctly prepare the surface before applying the disinfectant
- Apply the appropriate amount of disinfectant by saturating the area or spraying continuously
- Leave the disinfectant on the surface for enough time

- Rinse the disinfectant off the surface if needed
- Dry the surface before use
- Store the disinfectant correctly
- Make a new dilution as needed
- Dispose of unused mixtures that are no longer effective due to contamination or age

Working with Concentrated Solutions

Often, disinfectants come as a concentrated solution. Using the disinfectant at this concentration could be a safety concern. If necessary, create a diluted solution for your use.

How to make a diluted disinfectant solution:

1. Read the disinfectant label closely for instructions
2. Measure out the correct amount of water and place in a bottle
3. Measure out the correct amount of disinfectant and add to the water in the bottle

Be careful when handling concentrated disinfectants! This might include wearing a mask and gloves. Always read the label for instructions.

Discard contaminated disinfectants. Contamination decreases the ability of a disinfectant to work.

Safe and Effective Disinfectant Use

Product	Standard Dilution	Contact Time	Rinse Required	Storage
Accelerated Hydrogen Peroxide (AHP)	<ul style="list-style-type: none"> • 1:32 • ½ cup of AHP plus 1 gallon of water 	10 minutes	No	<ul style="list-style-type: none"> • Make fresh dilution every 90 days
Bleach (sodium hypochlorite)	<ul style="list-style-type: none"> • 1:32 • ½ cup of 5.25% bleach plus 1 gallon of water 	10 minutes	✓	<ul style="list-style-type: none"> • Store in dark bottle • Make a fresh dilution daily
Calcium hypochlorite	<ul style="list-style-type: none"> • 1:100 • ½ teaspoon of 5% calcium hypochlorite plus 1 gallon of water 	10 minutes	✓	<ul style="list-style-type: none"> • Make a fresh dilution daily
Potassium Peroxymonosulfate*	<ul style="list-style-type: none"> • 1:100 	10 minutes	No*	<ul style="list-style-type: none"> • Make a fresh dilution weekly
Quarternary Ammonia Compounds	<ul style="list-style-type: none"> • Depends on % of concentrated disinfectant 	10 minutes	✓	<ul style="list-style-type: none"> • How long a dilution remains effective varies

* Highly irritating. Wear gloves and goggles when using. Ensure adequate ventilation. A rinse is required for use on food surfaces.