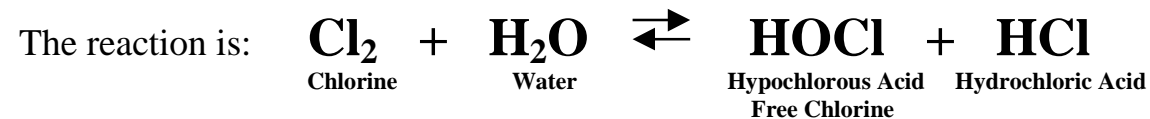


Why Use Kennel+Plus Instead of Bleach

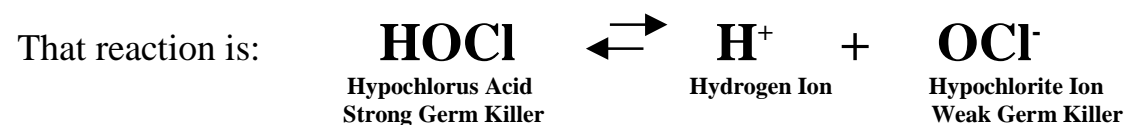
There is a striking difference between the KENNEL+PLUS chlorine delivery system and house hold bleach. When chlorine gas is added to water it forms hypochlorous acid (HOCl) which is an excellent germ killer. Hypochlorous acid provides free available chlorine.



Problems develop when chlorine gas is added to water and allowed to sit and age. Just as champagne or carbonated water “go flat” on sitting as the bubbly carbon dioxide gas escapes into the air, chlorine escapes from a hypochlorite solution thus weakening its germ killing value. In order to slow this escape, bleach manufacturers add sodium hydroxide (lye) to their product causing the pH to rise dramatically, reducing the percent of HOCl in the solution, reducing its germicidal efficiency. Lye burns animal and human tissues and promotes Contact Dermatitis as it saponifies natural oils in skin tissues.

The hypochlorite solution dispensed from Kennel+Plus, contains NO LYE!

Second, Chlorine in water splits into two forms, hypochlorous acid (HOCl) and hypochlorite (OCl⁻). At high pH the chlorine provided by bleach is in the **hypochlorite ion form, OCl⁻**

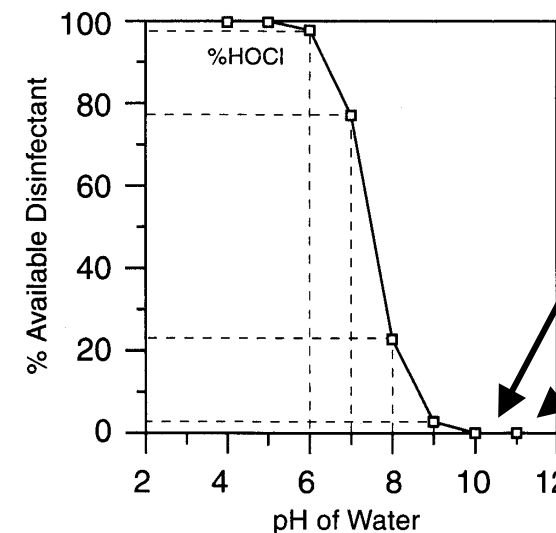


How much HOCl or OCl⁻ is present in a chlorine solution is dependent solely upon the pH of the solution. As pH level rises, less hypochlorous acid and more of the hypochlorite ion is in the solution. **As the pH rises, less germ killing power is available.** According to a University of Illinois study it takes 80 to 120 times **MORE** OCl⁻ to do the same germ killing job as hypochlorous acid.

Even at dilutions as low as 1 ounce of bleach to a gallon of water, the pH of the solution is 10.25 and all of chlorine is in the hypochlorite ion form (OCl⁻)

Third, If a chlorine solution is not strong enough to satisfy the chlorine demand, in other words, there is not enough chlorine to oxidize, the organic matter on the surface or solution to be disinfected, chloramines will likely form as chlorine and organic (protein) and inorganic (urine) ammonia compounds combine. Chloramines are responsible for the obnoxious odor usually associated with low level chlorine disinfection. **The obnoxious, pungent, eye-stinging smell of chloramines, mistakenly identified as free chlorine, indicates that the chlorine/water mix is not effective.**

Effect of pH on HOCl



IF WE DILUTE:

1 ounce of bleach to 1 gallon with water (1:128),
the pH of the solution is 10.25!

1/2 cup of bleach to 1 gallon with water (1:32);
the pH of the solution is 11.30!

**AT THOSE pH LEVELS, THERE IS NO
HYPOCHLOROUS ACID AVAILABLE FOR
GERM KILLING!**

If you get a pungent chlorine smell when you are using chlorine, you don't have enough free available chlorine (HOCl) to do the proper disinfecting or sanitizing job.

The chlorine solution provided by the KENNEL+PLUS delivery system has buffering capacity to a pH of 8. Buffering means that the disinfecting solution coming out of the Kennel+Plus system resists a pH increase when alkalis (bases) are present or added

Fourth, Bleach has a problem with shelf-life stability. Under normal storage it starts to deteriorate immediately after manufacture and it will lose up to 50% of its potency in less than 60 days from date of manufacture as it reverts to sodium chloride (table salt).

There is a new way to test the efficacy of Chlorine as a disinfectant in a solution, it is being used in the swimming pool industry, the food industry, and other industrial fields, it is called THE OXIGEN REDUCTION POTENTIAL or ORP. It measures the potential of a chlorine solution to oxidize protein. A reading of +650 millivolts (mV) is the ideal reading; it destroys most organisms instantly, KENNEL+ PLUS produces in excess of 800 mV. **FRESH Bleach at a 1:32 dilution produces less than 500 mV.**

THE KENNEL+PLUS SYSTEM PROVIDES STABLE, SOLID 68% AVAILABLE CHLORINE TO ASSURE THAT THE GERM KILLING AND OXIDIZING POWER YOU NEED IS THE STRONGEST AVAILABLE AT THE TIME WHEN YOU NEED IT!

KENNEL+PLUS UTILIZES COMPONENTS THAT ARE: USDA APPROVED, FDA APPROVED, EPA REGISTER #357425-3, CAL EPA REGISTERD 57425-3-AA

AND, THERE IS NEVER A NEED TO RINSE!!

ALL AT A COST OF ABOUT \$1.20 PER MONTH PER RUN!

The absolute ease of use is the main benefit of using the Kennel+Plus point-of-use chlorine delivery system. Tablets are furnished in the cartridge shown on the left. The screw top of the Kennel+Plus dispenser, shown on the right, is removed and the cartridge is inserted into the dispenser.



Simply attach to a water hose. A spring regulates the exposure of individual dry chlorine tablets to the water stream flowing through the dispenser.

Tightening the top by screwing up or down regulates the amount of chlorine in the discharged solution in the 20 to 100 parts per million range.



After use, the Kennel+Plus cartridge is simply thrown away and replaced with another. There is no need for you or your personnel ever to come into contact with individual tablets. Because of its point-of-use design Kennel+Plus eliminates the need for proportioners, complex metering devices and batch mixing of chemicals by your workers. Since there is no batch mixing and negligible clean-up time, Kennel+Plus limits worker liability while enhancing worker safety.

Recent studies have shown that QUATS (quaternary ammonium compounds) are not effective against most viruses and bacteria. If you do not know if your present disinfectant is a QUAT ask your sales representative. Remember that what works in the laboratory does not necessarily work in the field and that an EPA registration does not mean an approval by EPA.

WHEN DISINFECTING WITH CHLORINE SOLUTIONS or any other solutions, MAKE SURE THAT THE SOLUTIONS ARE FRESH. THAT PROPER pH, ppm, WATER HARDNESS AND CONTACT TIMES ARE OBSERVED, THAT THE PROPER AMOUNT OF THE SOLUTION IS USED AND THAT THE SURFACES ARE FIRST CLEANED, THOROUGHLY WETTED AND MAINTAINED WET FOR THE SPECIFIED TIME.

NOTE TO PUBLIC OFFICIALS: The hypochlorous acid delivery system employed by Kennel+Plus has many other uses in the public health field. For HAZMAT use, it can be used to instantly decontaminate equipment of pathogens without the hydroxyl alkalinity that is damaging to human and animal tissue, aluminum, rubber or plastic equipment. Chlorine levels can be adjusted up to 300 +/- 20 ppm with one or more units depending on water flow

Kennel+Plus™ SANITIZING SYSTEM

Safe reliable and economical to use

Throw Away Your Chemicals, Sanitizers, Deodorizers, Bleach and Stop Flushing Your Dollars Down the Drain.....

Get the Safe and Simple, No Mix, No Rinse, Hypochlorite Cartridge System for About a Penny a Gallon!

Join hundreds of Animal Control Facilities, ABKA kennels, Humane Societies, Vet. Clinics and others who have found the answer for about a penny per gallon.

This system assures clean and disinfected kennels, cages and equipment. It has been tested and proven its ability to safety and economically control diseases and improve operational efficiency.

- Simply attach to a hose.
- No batch mixing.
- Destroys mold, algae, bacteria and viruses on contact, **including Parvo.**
- US EPA, and CAL EPA registered
- FDA and USDA approved for direct food and animal contact.



For More Information, Contact:

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