

## Frequently Asked Questions About Chloramine Water Disinfection

### **Q: What is the disinfection process?**

A: Disinfection is a step in the water treatment process to assure the biological safety of water. Chlorine, Chloramines and other chemicals can be used as disinfectants. In 1993 GSWSA changed to chloramine as the primary disinfectant.

### **Q: What is Chloramine?**

A: Chloramine is formed when ammonia is added to water that contains free chlorine. Depending upon the pH and the amount of ammonia, ammonia reacts to form one of three chloramine compounds.  $\text{NH}_2\text{Cl}$ , monochloramine, is the preferred compound.

### **Q: Why did our water provider change from chlorine to chloramine disinfectant in 1993?**

A: EPA has introduced new rules and regulations to limit the amount of chemical compounds known as Disinfection By-Products (DBPs) within the water. The addition of chloramines, as opposed to free chlorine, halts the formation of DBPs while disinfecting the water. Also, there is less of a chlorine taste and odor in the water with the use of chloramines.

### **Q: Is chloramine safe?**

A: Chloramine is safe. EPA accepts chloramine as a disinfectant and recognizes its ability to control THM formation. Chloraminated water is safe for bathing, drinking, cooking and all everyday uses.

### **Q: Why does water provider sometime change back to chlorine as the disinfectant while the water mains are flushed?**

A: Temporarily converting from chloramines to free chlorine is done to accompany the flushing process. Overtime sediments accumulate in water pipes. If not controlled, this can reduce the quality of your drinking water. Material in water pipe can become accustomed to the chloramine disinfectant that is routinely used. Switching to free chlorine, which is a stronger disinfectant, for a short period of time, ensures the quality of your

water during the flushing process. Using fire hydrants to conduct a system-wide flushing of our distribution mains, combined with the disinfectant change is a very effective method for cleaning out this sediment and other built up material. This procedure is a standard practice used nationwide.

**Q: What methods are available to remove chloramine?**

A: Carbon filtration or water treatment products that neutralize chloramine may be used. If you use a carbon filter it must contain high quality granular activated carbon and you must allow sufficient contact time.

**Q: Will reverse osmosis remove chloramine?**

A: No. Salts can be caught by the permeable membranes, but chloramine may pass through the membranes.

**Q: Do home water softeners remove chloramine?**

A: Most softeners are not designed to remove chloramine.

**Q: What about fish tank owners?**

A: Fish tank owners, including hobbyists, restaurants and fish markets, who now treat for chlorines in the water, should assure that they have appropriate carbon filtration equipment or use water treatment products that neutralize chloramine. These products are readily available through pet and aquarium stores, as well as from companies that service commercial fish tanks.

**Q: Does letting water sit for a few days remove chloramine from tanks for pond water?**

A: No. Unlike chlorine, which breaks up when water sits for a few days, chloramine may take weeks to disappear. If you choose not to use a de-chloraminating chemical, install a granular activated carbon filter and allow sufficient contact time between the water and filter.

**Q: Will chloramine affect the way I treat my swimming pool?**

A: No. you will still need a free chlorine residual to retard algae and bacteria growths.

**Q: How are kidney dialysis patients affected by chloramine?**

A: Chloramine can diffuse through the reverse osmosis membrane filters utilized by some hemo-dialysis machines, and patients undergoing kidney dialysis could be adversely affected. To prevent this, dialysis equipment must be adjusted to remove chloramine and the treated water must be monitored to measure the final chloramine concentration. Dialysis facilities must review their dialysis treatment equipment to determine its continued safe operation.

**Q: What should people with home dialysis machines do to remove chloramine?**

A: Check with your physician. Often times, home dialysis service companies can make the needed modifications.

**Q: Is it safe for kidney dialysis patients to drink water containing chloramine?**

A: Yes. Because the digestive process metabolizes chloramine before it reaches the bloodstream, everyone can drink chloraminated water. Kidney dialysis patients can drink, cook, and bathe in chloraminated water. It's only when water interacts directly with the blood stream, as in dialysis or in a fish's gill structure, the chloramine must be removed.

**Q: Can children and pregnant women drink chloraminated water?**

A: Yes, everyone can drink water containing chloramine.

**Q: Can people on low-sodium diets or with diabetes use chloraminated water?**

A: Yes. People with those medical problems can use chloraminated water for all purposes.

**Q: How about washing an open wound with chloraminated water?**

A: Even large amounts of chloraminated water used in cleaning a cut would have no effect because virtually no water actually enters the blood stream that way.

**Q: Who can I call if I have more questions?**

A: Contact our Customer Service Representatives at 843-443-8202.