



## Chloramines Conversion Frequently Asked Questions

### **What is the current drinking water disinfection method?**

The current method of disinfection used is chlorination. In this process, chlorine is added to drinking water at a controlled level. Chlorination is an effective way to kill many kinds of bacteria and other germs that may be harmful to your health.

### **What is chloramination?**

Chloramine is a type of disinfectant used in drinking water to remove bacteria and viruses consisting of both chlorine and ammonia. In the chloramination process, ammonia is added to the water at a carefully controlled level. The chlorine and ammonia react chemically to produce chloramines. Chloramination is as effective as chlorine in killing many kinds of bacteria and other germs that may be harmful to personal health.

### **Why convert from chlorine to chloramines?**

Chloramination reduces the level of certain byproducts of the chlorination process. These byproducts, called Total Trihalomethanes (TTHM) and Haloacetic Acids (HAAs), result from the reaction of chlorine with small amounts of naturally occurring organic substances in drinking water.

### **By converting to chloramines, the regional partnership:**

- reduces the levels of TTHMs and HAAs in drinking water
- complies with more stringent standards implemented by the Environmental Protection Agency
- continues to supply water customers with safe and aesthetically pleasing water.

In addition, customers should notice an improvement in the taste and odor of their drinking water. With chloramination, the chlorine smell and taste in our water will be less apparent.

### **Is chloramination safe?**

Yes. Chloraminated drinking water is perfectly safe for drinking, cooking, bathing, and other daily water uses. There are, however, some identified groups who need to take special precaution with chloraminated water such as those who use drinking water for kidney dialysis machines, specialized industries, and fish owners.

### **How are kidney dialysis patients affected by chloramines and what precautions should they take?**

Chloramines are harmful when they go directly into the bloodstream. In the dialysis process, the water mixes with blood across a permeable membrane. For this reason, both chloramines and chlorine are toxic in dialysis water and must be removed from water used in dialysis machines. Medical centers that perform dialysis are responsible for purifying water used in their dialysis machines. Customers with home dialysis equipment should contact their physicians and check with equipment manufacturers for more information.

**How are fish affected by chloramines and what precautions should fish owners take?**

Fish also take chloramines directly into their bloodstream. Therefore, chloramines should be removed from water used in aquariums, fish tanks, and ponds. Individuals or businesses that keep fish or other animals in tanks, aquariums, or ponds should ask a pet supply company about removing chloramines. Customers who use drinking water for aquaculture purposes (growing plants in water tanks or ponds) should get expert advice regarding the need and procedures to neutralize or remove chloramines. Also, restaurants and grocery stores with lobster tanks must take special precautions to treat the water.

**Is it safe to wash open wounds with chloraminated water?**

Yes. Chloraminated water is completely safe to use on cuts and wounds. Water cannot enter the bloodstream through an open cut.

**Will chloramination affect household water uses?**

No. It will not affect routine water uses, including food preparation, household laundering, dishwashing, watering plants, etc. Chloramines are normally removed by the high chlorine demand in soil, so they have no effect on plants.

**Will chloramination affect business water users?**

Businesses and other establishments that use municipal drinking water for commercial laundering, laboratory procedures, and other processes that require carefully controlled water characteristics should get advice from equipment manufacturers or other suppliers regarding any changes that may be needed. These types of businesses may include laboratories, microchip manufacturers, biotech companies, soft drink bottlers, photography labs, and restaurants or seafood suppliers with fish tanks.

**Will chloramines affect the use of swimming pools?**

No. Swimming pool managers and owners will still need a free-chlorine residual to retard algae and bacterial growth. Contact your local pool suppliers for specific details.