

Are saltwater fish affected by chloramine?

Yes.

Does letting water sit for a few days remove chloramines from tanks or pond water?

No. Unlike chlorine, which disappears when water sits for a few days, chloramines may take weeks to disappear.

Will boiling water remove chloramines?

No. Boiling water or adding salt will not remove chloramines.

Will chloramine affect the way I treat my swimming pool?

No. You will still need free chlorine residual to retard algae and bacteria growth.

Can children and pregnant women drink chloraminated water?

Yes, everyone can drink water containing chloramine.

Can I use chloraminated water to prepare my baby's formula?

Yes.

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

Yes, people with those medical concerns can use chloraminated water.

Is it okay to wash an open wound with chloraminated water?

Yes. Even large amounts of chloraminated water used in cleaning a cut would have no adverse effect because virtually no water actually enters the bloodstream that way. Please visit <http://www.ci.southbridge.ma.us> for further information or consult with your primary care physician.

Phone numbers for further questions:

Southbridge Water Department
508-764-3207

Southbridge Board of Health
508-764-4252

Southbridge Department of Public Works
508-764-5403

Massachusetts Department of
Environmental Protection (DEP Info Line)
1-800-462-0444

U.S. EPA Safe Drinking Water Hotline
1-800-426-4791

Websites for further information:

Town of Southbridge
ci.southbridge.ma.us/DPWwater.html

Massachusetts Department of
Environmental Protection
www.mass.gov/dep

Environmental Protection Agency
www.epa.gov

American Water Works Association
www.awwa.org

Water Research Foundation
www.waterresearchfoundation.org

Southbridge
Water Department

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Best Quality Drinking Water.

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Questions & Answers about Our Conversion to Chloramine Disinfection

Here are some questions and answers regarding the upcoming change in our method of disinfection from "chlorination" to "chloramination" in order to improve drinking water quality, and how the change may affect you, our customers.

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Why are we switching to chloramine?

Currently we use chlorine as a means to disinfect the water we supply to our customers. The conversion to chloramine is intended to provide better quality water to reduce disinfection byproduct formation to comply with increasingly stringent federal regulations. Application of chloramine will also help to maintain a more stable disinfection residual through our distribution system.

What's the difference between chlorine and chloramine?

Chlorine is a disinfectant chemical that is added to the drinking water at the water treatment plant. The chlorine then stays in the water at a low concentration throughout the distribution system to keep the water safe by protecting against biological growth.

Chloramine is a form of chlorine that is created by adding ammonium sulfate to the water after chlorine is added. We have invested in the use of ammonium sulfate, a food-grade substance that safely transforms chlorine to form chloramine. Like chlorine, chloramine also keeps the water safe by protecting against biological growth throughout the distribution system, but it also produces less disinfection byproducts.

When will the change to chloramine take place?

The Southbridge Water Department is currently installing new chemical feed equipment that will provide for the use of chloramines. However, the new equipment will not be activated until the first week of August 2011 in order to provide plenty of time for customers to understand and prepare for this change in disinfection method.

Is chloramine disinfection safe? Is it a proven treatment method?

Yes to both questions. The U.S. Environmental Protection Agency (EPA) accepts chloramines as a disinfectant and recognizes its ability to control the formation of disinfection byproducts. There are many cities and towns throughout the country that use chloramines for disinfection. Communities throughout the metropolitan Boston region are currently using chloraminated drinking water, as the drinking water provided by the Massachusetts Water Resources Authority (MWRA) is currently chloraminated and has been since the 1930's.

Chloraminated water is safe for bathing, drinking, cooking and other everyday uses. The majority of consumers will not be affected by this change. However, there are two groups of people who need to take special care with chloraminated water: kidney dialysis patients and fish owners. This is discussed further in this brochure.

How will the change to chloramine disinfection affect me?

Your drinking water will have less disinfection byproducts, and will have less of a chlorine taste and odor. Most customers will not observe any difference, other than some reduction in the "swimming pool and bleach" smell they may have experienced when drinking a glass of water. Some centers and hospitals providing kidney dialysis; and individuals, commercial establishments and laboratories maintaining fish tanks will have to ensure that the pretreatment steps they currently use to remove chlorine are adjusted, if necessary, to remove chloramines. For example, carbon filtration or water treatment products that neutralize chloramines may be used. If you

use a carbon filter it must contain high quality granular activated carbon and you must allow sufficient contact time.

Will reverse osmosis treatment units remove chloramine?

No, chloramines may pass through reverse osmosis membranes.

Do home water softeners remove chloramine?

Most softeners are not designed to remove chloramines.

How are kidney dialysis patients affected by chloramine?

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

What is the Southbridge Water Department doing to ensure that kidney dialysis centers are prepared?

The Southbridge Water Department will be contacting the National Kidney Foundation and medical centers throughout the water distribution system area to notify them about the coming change to chloramine disinfection. This informational brochure will be placed in the Town Hall and mailed to all Southbridge customers to help make sure customers become aware of this change.

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

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

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

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

What about fish, reptiles, amphibians and crustaceans?

Fish tank owners, including hobbyists, restaurants and fish markets that now treat for chlorine in the water should assure that they have appropriate carbon filtration equipment or use water treatment products that neutralize chloramines (chlorine and ammonia). This is also true for reptiles, amphibians and crustaceans. These products are readily available through pet and aquarium stores, as well as from companies that service commercial fish tanks. Please note that all other pets including dogs and cats can safely consume chloraminated water.

Are Koi fish affected by chloramines like other fish?

Yes, Koi are just as susceptible to being harmed by chloramines as other fish.