

Frequently Asked Questions - Chloramines

Why do cities disinfect drinking water?

Without some type of disinfectant in drinking water, disease-causing organisms may exist and cause widespread health issues for a community.

What are chloramines? Chloramines are disinfectants added to the water for public health protection. Chloramines are most commonly formed when ammonia is added to chlorine to treat drinking water. Chloramines provide long-lasting protection as they do not break down quickly in water pipes.

Are there different kinds of chloramines?

Yes, there are different types of chloramines, including monochloramine, dichloramine, trichloramine and organic chloramine. Monochloramine is the most common form used to disinfect drinking water, and it is the form that will be used in Justin's water distribution system.

Why is Justin switching from chlorine to chloramine for its secondary disinfectant?

Our purchase water from Upper Trinity Regional Water District is already sending chloramines as disinfection to our distribution system which is 76% of our water supply. Also with the new Environmental Protection Agency (EPA) regulations went into effect in 2012 that require water utilities to control levels of regulated disinfection byproducts (DBPs). DBPs are chemical compounds that are formed when chlorine mixes with small quantities of natural organics in the water. Chloramine produces lower concentrations of regulated DBPs than chlorine because chloramine is less reactive with natural organic matter. The City of Justin currently uses chlorine to disinfect drinking water. The addition of trace amounts of ammonia to chlorine in the City's water distribution system will improve water quality and ensure the City continues to comply with the EPA's increasingly stringent regulations on drinking water.

What can I expect to notice with the change?

Chloramination is expected to improve the taste and smell of Justin's water. You may, however, notice an unfamiliar odor or taste for a few days when the change from chlorine to chloramine first occurs.

Are other cities around the country also switching from a chlorine disinfectant to a chloramine disinfectant?

Many water utilities have already switched from chlorine to chloramine and have reported increases in customer satisfaction with the water's taste and odor.

Are chloramines safe?

Yes, chloraminated water is safe for bathing, drinking, cooking and all everyday uses. Chloramines have been used safely in the U.S., Canada and Great Britain for more than 90 years.

What stances does the federal Environmental Protection Agency take on chloramine?

The EPA recognizes chloramines as a safe disinfectant and an effective way to reduce DBP formation. In addition, the EPA states that water disinfected with chloramine that meets regulatory standards has no known or anticipated adverse health effects, including skin problems, breathing problems, digestive problems or cancers.

Are there any groups who must take special precautions with water containing chloramines?

Yes. Kidney dialysis patients must remove chloramine from the water they use for dialysis treatment. Fish owners also must remove the chloramines from the water used for their fish in aquariums and ponds.

What special precautions do kidney dialysis patients have to take?

Chloramine, like chlorine, must be removed from the water before it can be used in kidney dialysis machines. Chloramines can be removed by adding ascorbic acid to the water or using a granular-activated carbon treatment. Kidney dialysis patients should contact their physician or local kidney dialysis center for guidance on modifications to dialysis machines and procedures. Medical centers that perform dialysis are responsible for purifying the water that enters the dialysis machines. Kidney dialysis patients can still bathe, drink and cook with chloraminated water. The digestive process neutralizes the chloramines before they reach the bloodstream. It's only when water interacts directly in the bloodstream, as in dialysis, that chloramines must be removed.

What does the change in water disinfection mean for fish and fish owners?

Chloramine, like chlorine, must be removed from the water before it is added to aquariums or fish ponds, including fish and lobster tanks in restaurants and stores. The ammonia in chloramine is toxic to fish and other aquatic life as it enters the bloodstream directly through the gills. The water can be purified for fish and other aquatic life by adding specific agents to remove chloramines and ammonia or using a high grade of granular-activated carbon to remove chloramines. Leaving water to sit is not a reliable method for removing chloramines from the water. Pet owners should visit local pet stores and pet suppliers for dechloramination products and instructions. Water conditioners specifically designed for removing chloramines are commercially available.

If chloramines are harmful to kidney dialysis patients and fish, why are they not harmful to me?

Chloramines are harmful only when they enter the bloodstream directly, as in the kidney dialysis process. Monochloramines are broken down by the saliva and further neutralized by stomach acid. They leave the body through human waste quickly and cause no adverse health effects.

How can I remove chloramines from my tap water?

Unlike chlorine, chloramine can't be removed from drinking water by boiling water, allowing water to sit at room temperature over an extended period of time or by using reverse osmosis filters.

However, there are commercial products available that remove chloramine from drinking water. Please contact a local carrier of home water filters for information on chloramine-removing filters.

I already have a water filter installed at my home, is it effective in removing chloramines?

Some modern household treatments and filters may remove chloramine. To verify whether your current treatment or filter removes chloramine, please refer to your original filter packaging or contact a local provider of home water filters.