Chloramine Conversion FAO's

What are Chloramines?

PINERY
WATER AND WASTEWATER DISTRICT
Quality Water for Life

Currently, the District uses low levels of chlorine to disinfect the drinking water. Chlorination is effective at killing bacteria and viruses that may be harmful when ingested. Chloramine is created when ammonia is added to chlorinated water in controlled doses.

Why is the District changing to Chloramines?

The WISE Project is a first-of-its-kind partnership with South Metro Water, Denver Water and Aurora Water that bolsters water supplies to the south Denver suburbs while maximizing existing water assets in Denver and Aurora. The Pinery Water and Wastewater District is a participant in this revolutionary water supply project. It has been investing in infrastructure improvements for the last several years to deliver renewable and reusable WISE water to the District. One of the final steps to be ready to accept WISE water is to transition the District's water disinfection system from Chlorine to Chloramine. Chloramines help reduce the level of certain potentially harmful byproducts that may be created by disinfecting with just chlorine. In addition, chloramines last longer in the distribution system, meaning the water remains safer, longer.

When will this conversion take place?

The District is currently targeting the third week in March 2018 to convert the entire water supply from chlorine to chloramine.

Is this a new treatment method?

No. Many water utilities across the country have been using chloramine disinfection for decades; Denver Water has actually used this method since 1917! Some other local water providers using chloramines include the Town of Castle Rock, Centennial Water and Sanitation District (Highlands Ranch), Aurora Water, Castle Pines, Thornton and the City of Westminster.

Will I notice a change in my water?

Customers shouldn't notice any change in the water as chloraminated water has no odor or taste. With that being said, the chlorine smell and taste in our water should be less apparent.

Is it safe to wash open wounds with chloraminated water?

Yes. Chloraminated water is completely safe to use on cuts and open wounds.

Are there any individuals that should pay special attention to the change?

Chloraminated water is perfectly safe for drinking, cooking, bathing and other daily water uses. There are two groups of people who need to take special precautions with chloraminated water such as those who use tap water for kidney dialysis machines and fish/amphibian owners. Chloramines (like chlorine) are harmful when, rather than being ingested, they go directly into the bloodstream.

Why is chloramine harmful for fish and amphibians?

Fish, as well as some amphibians and reptiles, pass water through their gills, directly into the bloodstream. Chloramines can be removed from water with inexpensive water treatment products (drops or tablets) or specified carbon filters. These products are readily available at most pet supply stores.

Does my home water softener remove chloramines?

Most home water softeners are not designed to remove chloramines.

Will my faucet filter remove chloramines?

Yes. However, it must be a high-quality granular activated carbon filter with enough contact time.



Can Chloramines be removed by boiling water?

No. Boiling water will not remove the chloramines from the water.

Is chloraminated water safe for plants and animals that do not live in water, like my pet dog or cat?

Chloraminated water is as safe as chlorinated water for plants and animals that do not live in water. Chloramine is only dangerous for fish, reptiles, shellfish, and amphibians that take water directly into their bloodstream.

If chlorine and ammonia are toxic to mix at home, why is it safe to drink chlorine and ammonia in the form of chloramine?

Household chemical cleaners such as chlorine bleach and ammonia are sold as highly concentrated solutions. The hazardous mixture of these chemicals is due to their high concentrations. The concentrations of chlorine and ammonia added to drinking water for disinfection are very low; so low that concentrations are expressed in "parts per million" or ppm. For reference, one ppm represents about 5 tablespoons in a 20,000 gallon swimming pool.

Information for Kidney Dialysis Patients

Why do dialysis patients need to take special precautions?

Kidney dialysis patients can safely drink, cook and bathe in chloraminated water. However, just as with chlorine, chloramine can harm kidney dialysis patients during the dialysis if it is not removed before the water mixes with the patient's bloodstream.

How can people with home dialysis machines remove chloramines?

There are two ways to remove chloramines – either by adding ascorbic acid or using a granular activated carbon filter. You should first check with your physician, who will probably recommend the appropriate type of water treatment. Often, home dialysis service companies can make the needed modifications.

How are chloramines removed before the dialysis process?

Dialysis equipment may need to be upgraded to remove chloramines. To accomplish this, either add a dechloramination chemical or use a granular activated carbon filter. Dialysis facility operators can find assistance from physicians, dialysis equipment service companies and the Colorado Department of Public Health and Environment.

Information for Fish/Amphibian Owners

How do chloramines impact water used for fish, reptiles, shellfish and amphibians?

Chloramines must be removed from any water to be used for fish tanks or ponds. Like chlorine, chloramines are toxic to saltwater and freshwater fish, reptiles, turtles, and amphibians. These animals take chloramines directly into their bloodstream through their gills and therefore must be protected.

What can aquarium or pond owners do to remove the chloramines?

Households, restaurants, and commercial fish tank owners will need to change their current chlorine removal process to remove chloramines instead. The appropriate dechloraminating products or carbon filteration equipment for removing chlorine and ammonia should be available at pet and aquarium stores. Home remedies such as boiling water, using salts, and having water sit still for a while are not effective methods to remove chloramines. Unlike chlorine, which only takes a few days to dissipate when remaining still, chloramines stay in the water for a few weeks. The best way for fish owners to remove chloramines is to use a conditioner that contains a dechloraminating chemical.