

What are chloramines?

Chloramines are most commonly formed when ammonia is added to chlorine to treat drinking water. Aqua also uses chloramines to help maintain a longer-lasting and more effective chlorine residual in the distribution pipes to keep bacteria from growing.

Why does Aqua Pennsylvania use chloramines?

Aqua Pennsylvania (Aqua) uses chloramines as a way to reduce the disinfection byproducts (DBPs) that are sometimes created when free chlorine, used to treat the drinking water, reacts with the organics in the water. DBPs are also regulated in drinking water.

Are chloramines routinely used for drinking water?

Yes. The process has been used in the U.S. for more than *90 years* and is currently in use in more than 30 percent of U.S. cities with more than 70 million U.S. citizens drinking water treated with chloramine every day. Chloramine disinfection is used in Denver, CO (since 1917), St. Louis, MO (1934), Boston, MA (1944), Dallas, TX (1959), and Miami, FL (1982). In Pennsylvania, 73 public water systems serving more than 4 million people receive water containing these residuals, including Philadelphia (since 1969) and other parts of Aqua's system.

EPA estimates more than one in five people in the U.S. drink chloraminated water. The EPA, DEP, and the U.S. Centers for Disease Control and Prevention all concur that chloramination is a safe, effective method for controlling DBPs and maintaining disinfection in the water distribution system.

Does Aqua Pennsylvania use chloramines in other Pennsylvania communities?

Aqua has decades of experience providing chloraminated water in community water systems in Southeastern Pennsylvania.



How much chloramine should be in water?

Environmental Protection Agency (EPA) regulations govern the levels of disinfectants (chlorine and chloramines) that are allowed in drinking water. These regulations require us to constantly increase and reduce these disinfectants in the drinking water.

The EPA maximum amount of disinfectant is 4 milligrams per liter (mgL) and the minimum is defined as “detectable,” which varies by state. Pennsylvania’s Department of Environmental Protection (DEP) defines “detectable” as 0.02 mgL. DEP will implement a change to regulations on the disinfection of public drinking water later this year that is intended to strengthen water quality requirements throughout the state. The new regulation will require a minimum level of disinfection of 0.2 mgL. Aqua continually upgrades its treatment facilities and infrastructure, and has already made improvements in anticipation of these new regulations.

Special Precautions for Kidney Dialysis Patients and Fish Owners

The following two groups that should take precautions if they live in an area that uses drinking water with chloramines:

- **People on dialysis**
 - Chloramines, like chlorine, will have to be removed from the water before it can be used in kidney dialysis machines.
 - The water is safe for dialysis patients to drink, cook, wash or use in any other application except for their dialysis treatment.
 - Check with your physician if you have any questions or concerns.
- **People who care for fish**
 - Chloramines, like chlorine, must be removed from the water before it is added to aquariums or fish ponds. Most pet stores sell products that can neutralize the chloramines before adding the water from your tap to your fish tank or pond.

More information on Chloramines

Aqua Customers may contact Aqua at **877.987.2782** to request to have a water quality professional return their call.

The USEPA offers additional information here: <https://www.epa.gov/dwreginfo/basic-information-about-chloramines-and-drinking-water-disinfection>.

The Centers for Disease Control offers additional information here:

<https://www.cdc.gov/healthywater/drinking/public/chloramine-disinfection.html>.

The Pennsylvania Department of Environmental Protection offers additional information here:

<http://www.dep.pa.gov/Citizens/My-Water/PublicDrinkingWater/Pages/Chloramine-in-Drinking-Water.aspx>

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