

CHLORAMINES

A key ingredient in the surface water treatment process



INDIANA
AMERICAN WATER



The use of chloramines, a combination of chlorine and ammonia in drinking water as a disinfectant plays a critical role in the prevention of waterborne diseases

According to the World Health Organization, the adoption of drinking water chlorination has been one of the most significant advances in public health protection, stating that “disinfection by chlorine is still the best guarantee of microbiologically safe water.”

DID YOU KNOW?

Chloramines have been used since the early 1900s in the U.S. and Canada to disinfect drinking water.

Why chloramines are added to drinking water

Chloramines are added to water for the customers' protection. It is used as a disinfectant to ensure that harmful organisms, such as bacteria and viruses, are destroyed in the treatment process.

In addition, the Indiana Department of Environmental Management (IDEM) and the U.S. Environmental Protection Agency (EPA) require Indiana American Water to maintain low levels of this disinfectant to be present in the water at the furthest point of the distribution system. Our company complies with these minimum levels as the water travels from our treatment facility to your home. Consequently, customers who live or work closest to the facility might experience higher levels of chloramines.

We make every attempt to minimize this level, and we frequently perform monitoring at various locations within our system. The results of this monitoring are used to adjust the chloramine concentrations in the water leaving our facilities to make sure that the levels are not excessive, but are adequate for public health protection. Indiana American Water continues to meet the drinking water standards related to chloramine use in your drinking water set by EPA and IDEM in all of its systems.

How do chloramines affect my water?

Chloramines are a very effective disinfection and are widely used in the U.S. and Canada. They also have the added benefit of having significantly less of the characteristic taste and odor associated with chlorinated water.

Two groups of people should take precautions when using chloraminated water

Kidney Dialysis Patients

- Because water comes into contact with the bloodstream during dialysis, chloramines and chlorine are toxic and should be removed by adding ascorbic acid or filtering the water through granular activated carbon.

Fish Owners

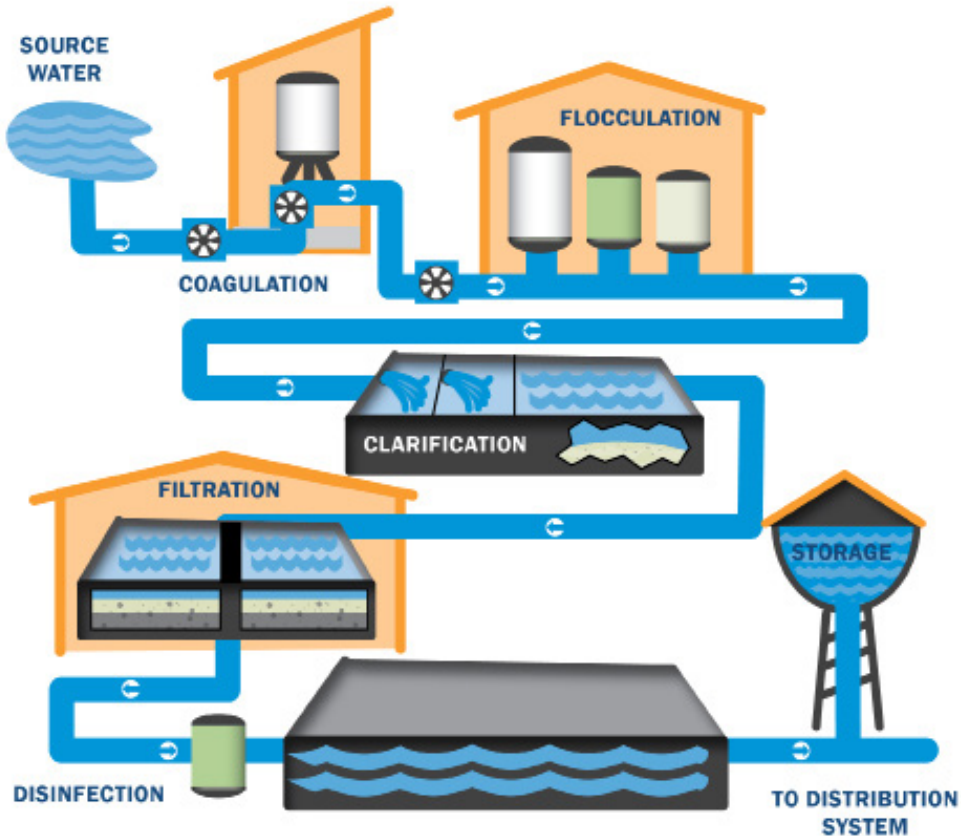
- Both chlorine and chloramines are toxic to fish in very low levels and must be removed from the water to be used in an aquarium. Most pet stores sell a disinfectant removal product that can be added to the water prior to introduction of the fish to a tank or pond.

WE CARE ABOUT WATER. IT'S WHAT WE DO.®

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SURFACE WATER TREATMENT PROCESS



For more information

Indiana American Water Customer Service Center
1-800-492-8373

Check us out online

- Web: indianaamwater.com
- Facebook: www.facebook.com/indianaamericanwater
- Twitter: Twitter.com/inamwater

For more information on drinking water standards:

- Contact the EPA Hotline at 1-800-426-4791

Source Water

- Water supply serving the area. In this case, it is a surface water supply, such as a river, lake or stream.

Coagulation

- Coagulation removes dirt and other particles suspended in water. Chemicals, such as aluminum and iron salts, are added to water to form tiny sticky particles called "floc."

Flocculation

- The floc acts as a magnet and attracts other dirt particles. The combined weight of the dirt and floc become heavy enough to sink to the bottom during clarification/sedimentation.

Clarification/Sedimentation

- The heavy particles (floc) are removed and the clear water moves to filtration.

Filtration

- The water passes through filters, some made of layers of sand, gravel and activated carbon, which help remove even smaller particles.

Disinfection

- A small amount of chloramines are added during the treatment process to kill any bacteria or microorganisms that might be present in the water.

Storage

- The water then flows through pipes to homes and businesses in the community. Distribution tanks within the system provide storage of water to enhance reliability of water service and fire protection.

Source: US Environmental Protection Agency (EPA):
<http://www.epa.gov/ogwdw/kids/watertreatment-plant/index.html>