



Questions and Answers about Chloramines

Massachusetts Water Resources Authority - www.mwra.com

September 3, 2015

- MWRA uses chloramines (a mild and long-lasting disinfectant combining chlorine and ammonia), while Lynn uses free chlorine.
- MWRA water has a higher pH (approximately 9 - 9.5) to control corrosion and reduce possible lead at customers' taps.

Water containing chloramines is no different from chlorinated water for most normal uses and is perfectly safe to drink. These differences in treatment will not have much effect on your personal use, unless you have a specific medical condition.

Chloramine is a disinfectant used to treat drinking water. Chloramine is used to provide long lasting treatment as water moves through miles of pipes from treatment to consumer's taps. Chloramine is produced by a precise combination of chlorine and ammonia; its advantages include that it is mild and long lasting, produces less taste and odor, and causes fewer disinfection byproducts. The form that is used by most water utilities and the MWRA is called mono-chloramine.

Chloraminated water meets EPA standards and is safe to use for drinking, cooking, bathing and other household uses. Chloramine disinfection has been used by water utilities for almost 100 years and by MWRA since the 1930s. More than one in five Americans uses drinking water treated with chloramine, as do almost all communities in the metropolitan Boston area.



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Are chloramines safe to drink?

Chloraminated water is safe for people and animals to drink, and for all other general uses.

What about dialysis?

Chloramine needs to be removed before use in a dialysis machine. We have notified all hospitals and clinics about the temporary change to the use of chloramine in Lynn, and they are prepared for the change. If you think you may have a health concern with regard to chloramines, you should consult with your physician or health care provider.

What are the impacts of chloramines on pets?

Chloramine is safe for all mammals and birds and most reptiles. Chloramine will not cause any health problems for dogs or cats.

What are the impacts of chlorine and chloramines on fish and aquatic organisms?

Fish and other aquatic organisms are very sensitive to chloramine and may die if exposed to chloraminated water, as they “breathe” the water rather than drinking. Therefore, chloramine must be removed from water before it is used in aquariums or fish ponds.



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I have an aquarium with fish. How do I remove the chloramines from the water?

Chloramines must be removed from water before it is used in aquariums or fish ponds.

Chloramines do not dissipate in the air and are not removed by boiling or aerating water. There are generally two methods for removing chloramines:

1. Adding specific agents that remove chloramines and ammonia.
2. Using a high-grade granular activated carbon filter. (This can be effective but requires more contact time for larger volumes of water.)

Make sure the additives you buy for your tank remove chloramines - not just chlorine.

Regardless of the method you use, it is essential that aquarium or fish pond water is regularly tested to ensure that the regular method of cleaning is effective.

Note with regard to making sure your water is safe for fish:

It is important to remember that a dechlorinating agent containing Sodium Thiosulfate will only neutralize the chlorine portion of the chloramines, not the ammonia. Additional steps must be taken to remove ammonia. Natural zeolite products can be used with carbon filters to remove the ammonia. There are also commercial products available containing dechlorinating agents that remove the chlorine and detoxify the ammonia so that it can be removed by the biological filter.

Ammonia removal is particularly important in water with a high pH level. As the pH increases the un-ionized ammonia (toxic form) also increases. Commercial products, biological filters, zeolites, and pH control methods may be effective in reducing the toxicity of ammonia.

Consult your local pet store professional for the test kit and treatment method which is best for you. Most pet stores in the region should be aware of this as many of the surrounding communities already use chloraminated MWRA water.



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Here are some tips for those with aquariums and fish ponds.

- Test the pH level of your tank at least once per week and adjust it accordingly
- Most fish prefer a pH between 6 and 6.8, but you may want to find out the preferred pH of your particular fish. MWRA water will be at a level of 9 to 9.5, slightly alkaline.
- Make sure the additives you buy for your tank remove chloramines - not just chlorine.
- Amphibians may also be impacted by these changes so if you have a frog, newt or salamander, talk to a pet professional.
- Spread the word to friends who keep fish or amphibians to make sure that their pets are protected.
- For more information about how to best protect your fish talk to your pet store owner.

Are there health effects associated with chloramines?

According to EPA, water disinfected with chloramines that meets regulatory standards has no known or anticipated adverse health effects, including skin or digestive problems.

Trichloramine, a chemical that often forms in swimming pools, has been linked to skin problems, but this is a different chemical than mono-chloramine, which is what MWRA and most water utilities use.

How can I remove chloramines from my drinking water?

According to EPA, water disinfected with chloramines that meets regulatory standards is safe to use and it does not need to be removed. Chloramine can be more difficult to remove from drinking water than chlorine. Boiling water or allowing water to sit at room temperature does not remove chloramines from drinking water. Reverse osmosis filters also do not remove chloramines from drinking water. Commercial products are available that indicate that they remove mono-chloramine from drinking water, but you should check their certification.

The following website is helpful in choosing filters: <http://www.nsf.org/consumer-resources/what-is-nsf-certification/water-filters-treatment-certification>.