



Water
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Protect your Fish, Amphibians & Reptiles

Safe for general use and people

Chloraminated water is safe for people and animals to drink as it is neutralized by the digestive process. It is also safe to cook with, bathe in, and for other general uses.

How are fish, amphibians & reptiles affected?

Chloraminated water passes through gills, directly entering the fish, amphibian and reptile bloodstream. Chloramine must be removed as it binds to iron in red blood cell hemoglobin, causing reduced cell capacity to carry oxygen.

How do I make changes for chloramine?

Just like chlorine, chloramine will need to be removed from water for fish, amphibian and reptile use. The products listed below are available at fish and pet supply stores. Aquarium supply professionals, published materials and pet owners recommend the following:

- Treatment products (drops or tablets) that remove both ammonia and chlorine, or
- Biological filter (for ammonia) and chemical agent (for chlorine)

It has been reported high quality activated carbon filtration and reverse osmosis remove chloramine under optimum conditions, but are expensive and must be closely monitored to ensure their effectiveness.

Will boiling remove chloramine?

Chloramine cannot be removed by boiling water, adding salt, or letting water stand in an open container to dissipate the chloramine.

How can I test my water?

Aquarium owners will want to test their water for ammonia concentrations in addition to chlorine. A test kit with correct active agent for ammonia can be helpful for monitoring. Two basic kits are available, and should be selectively used.

- **Nessler reagent.** This kit will give a faster reading, but will also give a false reading if ammonia binders have been used.
- **Salicylate reagent.** This kit provides an accurate reading when ammonia binders have been used.

Any tips for aquarium owners?

Chloramine is toxic to both fresh and salt water fish. Potable tap water used with artificial sea salts for makeup water in salt water fish tanks must have the ammonia and chloramine removed first.

Prepare for the Chloramine Conversion

In the Summer of 2010, the Ketchikan Public Utilities (KPU) will switch from chlorine to chloramine disinfection for drinking water. Chloramine is a combination of chlorine and ammonia that is considered a more stable disinfectant. Many communities have been successfully using chloramine disinfection for decades.

KPU needs to add ammonia to reduce disinfection byproducts as required by the State of Alaska and the EPA to be in compliance with drinking water regulations. Water customers in Ketchikan should begin receiving chloraminated water in August 2010.

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**KPU Contact: (907) 225-1000
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