

Fact Sheet: Disinfection of your water supply

Western Water's water supply comes from a range of sources, including protected and unprotected catchments and bores. To ensure the provision of safe and healthy drinking water at your tap, all water is disinfected at the point where it enters the supply system and at specified points.

Western Water disinfects your water supply using chemical processes to eliminate micro-organisms capable of causing disease. A process called chloramination is primarily used to disinfect the water supply, however we sometimes also use a traditional chlorination method. Having disinfectant present throughout the water distribution system prevents potentially harmful micro-organisms from regrowing in the water pipes.

Chlorination

What is chlorination?

Chlorine is the most widely used disinfectant for drinking water in Australia. Small amounts of chlorine are added to the water supply to destroy any bacteria that may cause illness.

The amount of chlorine added is equivalent to less than half a cup in an average sized back yard swimming pool. It is important to maintain a minimal amount of chlorine throughout the entire system to ensure that all water is safe to drink right up to the time it reaches your tap.

When compared to chloramination, chlorine requires much less contact time to destroy any harmful organisms so the reticulation lengths in some townships respond more effectively to this method.

How do we measure the amount of chlorine added to water?

Chlorine is added to the water supply in accordance with the National Health and Medical Research Council's *Australian Drinking Water Guidelines 1996* and the World Health Organisation's *Guidelines for Drinking Water 1984*.

The water supply is then monitored throughout the distribution system in accordance with the requirements of the *Safe Drinking Water Regulations 2004*, to ensure good quality water all the way to your tap.

How is chlorine controlled?

Through careful monitoring at each water filtration plant and at specified points in the supply system, chlorine levels are normally maintained at levels below what is normally detected by customers.

Changes in chlorine levels causing noticeable taste and odour issues may occur if there are sudden increases in the demand for water during hot weather.

Chloramination

What is chloramination?

Chloramination is a modified form of chlorination. A small amount of ammonia is added to the water just prior to the chlorine, to form monochloramines.

What are the advantages of chloramination?

- The disinfecting chemicals last longer and penetrate further and more effectively into the water supply system
- Taste and odour issues are minimised
- Chloramines are not broken down by sunlight to the same extent as chlorine used alone

When is chloramination preferable to chlorination?

As well as providing a long lasting disinfectant, chloramination results in minimal taste and odour issues as compared to chlorination. Chloramination is preferred in areas where water travels over long distances, or is stored for an extended period before it reaches customers' taps.

Customer precaution

While Western Water's disinfection methods are completely safe, chlorine and chloramines are harmful to fish and must be neutralised in tap water **before** it is used in aquariums or fish ponds. Please seek professional advice from your local aquarium shop on the most suitable products. For more information on protecting fish, please read Western Water's fact sheet *Caring for your fish*.

For further information

Contact Western Water on 1300 650 425 or visit our website at www.westernwater.com.au