



What's in your water?

Chlorine levels and coliform bacteria results for Tucson Water's drinking water system are published each month in *Your Water Connection*, the newsletter included in Tucson Water customers' water bills. You can also find up-to-date information on chlorine and coliform sampling on Tucson Water's web site at www.cityoftucson.org/water.

To stay up-to-date on water quality issues and to learn more about your water, subscribe to the *EMPACT – Water Info Now* Newsletter. It's free! Get on the mailing list by calling 791-5080, Ext. 1372 or email DQuinta1@ci.tucson.az.us.

Chlorine and Coliform



Chlorine

What is a primary drinking water standard?

A primary drinking water standard is the maximum level of a chemical or microbe legally allowed to be present in your drinking water. As part of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (USEPA) sets primary standards for approximately 90 contaminants in drinking water. For each of these, USEPA sets a legal limit called a maximum contaminant level (MCL) for drinking water. Tucson Water must, by law, provide drinking water that meets the primary standards and is safe to drink.

What is a secondary drinking water standard?

Secondary standards relate to the taste, odor, or appearance of drinking water. USEPA sets non-enforceable guidelines that address aesthetic characteristics and cosmetic effects. Public water utilities and states are not legally required to meet these secondary standards, but Tucson Water works to comply with them.

For more information about water standards visit the EPA website at <http://www.epa.gov> or Tucson Water's website at <http://www.cityoftucson.org/water>.

Chlorine Residual

Just as water is essential to life, chlorine is essential to safe water. Chlorine is used worldwide to maintain continuous disinfection in water distribution systems to ensure drinking water is free of bacteria and safe to drink.

Free chlorine residual tells you what amount of chlorine is "free" in your drinking water to keep attaching to chemicals and bacteria to maintain a sanitary water supply. When chlorine is added to the water supply some of the amount that is added attaches to chemicals such as iron and calcium, and to bacteria that already may be in the water. When this happens the attached chlorine will form substances like iron chloride and calcium chloride and will burn out the bacteria. The amount of chlorine that is not attached or not bound is called the chlorine residual (leftover) and is ready to kill any bacteria that may be in the water. The free chlorine residual levels in your drinking water average about 0.8mg/L. The USEPA primary standard for free chlorine in drinking water is 4/mg/L.

Coliform

Coliform Bacteria

Water quality professionals look for coliform bacteria in your drinking water because the absence of coliform shows that disease causing bacteria are not in the drinking water. This group of bacteria are naturally present in the environment and generally do not present a health threat in themselves. The amount of coliform bacteria in your drinking water is extremely low and is rarely found due to the amount of free chlorine that is always present in our water. The USEPA primary standard for water systems like Tucson Water's main distribution system does not allow more than 5% total coliform positive samples from over 240 samples that are collected by Tucson Water each month.

One milligram per liter is the same as one part per million. To give you an idea of how small an amount this is, it's the same as 1 teaspoon in 1,320 gallons.

One microgram per liter is the same as one part per billion, and is the equivalent of one teaspoon in 1.3 million gallons.

**What essential product that you rely on every day is tested for purity an average of every 60 seconds, 24 hours a day?
Your drinking water!**