Arsenic

What Is Arsenic?

Arsenic is a semi-metal element in the periodic table. It is odorless and tasteless. It enters drinking water supplies from natural deposits in the earth or from agricultural and industrial practices. Non-cancer effects can include thickening and discoloration of the skin, stomach pain, nausea, vomiting; diarrhea; numbness in hands and feet; partial paralysis; and blindness. Arsenic has been linked to cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate.

Like most heavy elements, Arsenic occurs in more than one valence state, specifically as AsIII (Arsenic +3) AsV(Arsenic +5). The ratio of As III to As V will vary widely, depending upon both the specific location and as a function of the pH and oxidation potential of that environment. Arsenic III is far more toxic than Arsenic V and more difficult to remove from the water.

Should I Have My Water Tested for Arsenic?

EPA regulates public water systems; it does not have the authority to regulate private drinking water wells. Approximately 15 percent of Americans rely on their own private drinking water supplies, and these supplies are not subject to EPA standards, although some state and local governments do set rules to protect users of these wells. Unlike public drinking water systems serving many people, they do not have experts regularly checking the water's source and its quality before it is sent to the tap. These households must take special precautions to ensure the protection and maintenance of their drinking water supplies. If you own your own, individual well, you are responsible for testing it.

Contact your Quality Pump & Supply representative to arrange testing. You can also call the Safe Drinking Water Hotline at 800-426-4791 and ask for the state certification officer who can give you the names of labs in your area that can do the testing.

Removing Arsenic from Well Water

The removal of Arsenic from water can be complicated, but can be achieved with proven technologies. Typically, Arsenic III (if it exists) is converted to Arsenic V, which is easier to remove with existing water treatment technologies. The exact technology or combination of technologies is determined by the specific analysis of your source water. Reverse osmosis, Ion exchange, coagulation, and oxidation are some technologies used to achieve the desired arsenic removal. An analysis of your water analysis by an Well Water Connection, Inc. professional will determine the appropriate method for an effective system.

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