

Arsenic

The United States Environmental Protection Agency (EPA) regulates arsenic in drinking water to protect public health. Arsenic may cause health problems if present in public or private water supplies in amounts greater than the drinking water standard set by EPA. The drinking water Maximum Contaminant Level for arsenic is 0.01 mg/L.

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.

What are arsenic's health effects?

Some people who drink water containing arsenic well in excess of the MCL for many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

What are EPA's drinking water regulations for arsenic?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur. These non-enforceable health goals, based solely on possible health risks and exposure over a lifetime with an adequate margin of safety, are called maximum contaminant level goals (MCLG). Contaminants are any physical, chemical, biological or radiological substances or matter in water.

The MCLG for arsenic is zero. EPA has set this level of protection based on the best available science to prevent potential health problems. Based on the MCLG, EPA has set an enforceable regulation for arsenic, called a maximum contaminant level (MCL), at 0.010 mg/L or 10 ppb. MCLs are set as close to the health goals as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

How does arsenic get into my drinking water?

The major sources of arsenic in drinking water are erosion of natural deposits; runoff from orchards; and runoff from glass & electronics production wastes.

How will arsenic be removed from my drinking water?

The following treatment method(s) have proven to be effective for removing arsenic to below 0.010 mg/L or 10 ppb: <u>adsorption media</u>, <u>ion exchange</u>, <u>coagulation/filtration</u>, <u>oxidation/filtration</u>, <u>and</u> <u>point-of-use or point-of-entry treatment using activated alumina or reverse osmosis</u>.

Source: Abridged from http://water.epa.gov/drink/contaminants/basicinformation/arsenic.cfm

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