



Thallium

The United States Environmental Protection Agency (EPA) regulates thallium in drinking water to protect public health. Thallium 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 thallium is 0.002 mg/L.

What is thallium?

Thallium is a metal found in natural deposits such as ores containing other elements.

What are thallium's health effects?

Some people who drink water containing thallium well in excess of the maximum contaminant level (MCL) for many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver problems.

What are EPA's drinking water regulations for thallium?

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 thallium is 0.0005 mg/L or 0.5 ppb. EPA has set this level of protection based on the best available science to prevent potential health problems. EPA has set an enforceable regulation for thallium, called a maximum contaminant level (MCL), at 0.002 mg/L or 2 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 thallium get into my drinking water?

The major sources of thallium in drinking water are leaching from ore-processing sites; and discharge from electronics, glass, and drug factories.

How will thallium be removed from my drinking water?

The following treatment method(s) have proven to be effective for removing thallium to below 0.002 mg/L or 2 ppb: activated alumina; ion exchange.

Source: Abridged from <http://water.epa.gov/drink/contaminants/basicinformation/thallium.cfm>

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