

## **ANTIMONY FACT SHEET**

## **Brief Overview:**

Category: Metals

Acceptable Level: 0.006 mg/L MCL, Primary Drinking Water Standard

Source: Natural occurring, Industry

**Effect:** Short and Long-term Health Effects **Follow up:** Test for Antimony and other metals **Treatment:** Coagulation/Filtration, reverse osmosis

## **Details:**

**Source:** Antimony is a metal found in natural deposits as ores containing other elements. The most widely used antimony compound is antimony trioxide, used as a flame retardant. It is also found in batteries, pigments, and ceramics/glass.

In 1984, 64.5 million lbs. antimony ore was mined and refined. Production of the most commonly used antimony compound, the trioxide, increased during the 1980s to about 31 million lbs, reported in 1985. Industrial dust, auto exhaust and home heating oil are the main sources in urban air.

From 1987 to 1993, according to the Toxics Release Inventory antimony and antimony compound releases to land and water totaled over 12 million lbs. These releases were primarily from copper and lead smelting and refining industries. The largest releases occurred in Arizona and Montana. The greatest releases to water occurred in Washington and Louisiana.

What happens to Antimony when it is released to the environment? Little is known about antimonys fate once released to soil. Some studies indicate that antimony is highly mobile in soils, while others conclude that it strongly adsorbs to soil. In water, it usually adheres to sediments. Most antimony compounds show little or no tendency to accumulate in aquatic life.

**Effect:** Short-term: EPA has found antimony to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: nausea, vomiting and diarrhea. Long-term: Antimony has the potential to cause the following effects from a lifetime exposure at levels above the MCL: decreased longevity, altered blood levels of glucose and cholesterol. There is inadequate evidence to state whether or not antimony has the potential to cause cancer from lifetime exposures in drinking water.

## **Follow up:** Treat and re-test for metals.

Following installation of this system, the consumer should have the treated water tested for antimony to verify antimony reduction is being achieved and the system is functioning properly.

For more information visit the USEPA web site:

Treatment: Coagulation/Filtration, Reverse Osmosis

For further technical assistance, call Suburban Property Inspections at 1-866-866-6700, or call the U. S. Environmental Protection Agency Safe Drinking Water Hotline at 1-800-426-4791.



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