

US EPA ARCHIVE DOCUMENT

# Consumer Factsheet on: ASBESTOS

## [List of Contaminants](#)

As part of the Drinking Water and Health pages, this fact sheet is part of a larger publication:  
**National Primary Drinking Water Regulations**

This is a factsheet about a chemical that may be found in some public or private drinking water supplies. It may cause health problems if found in amounts greater than the health standard set by the United States Environmental Protection Agency (EPA).

## What is Asbestos and how is it used?

Asbestos is a fibrous mineral occurring in natural deposits. Because asbestos fibers are resistant to heat and most chemicals, they have been mined for use in over 3,000 different products, including roofing materials, brake pads, and cement pipe often used in distributing water to communities.

## Why is Asbestos being regulated?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine safe levels of chemicals in drinking water which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals.

The MCLG for asbestos has been set at 7 million fibers per liter of water (M.L.) because EPA believes this level of protection would not cause any of the potential health problems described below.

Based on this MCLG, EPA has set an enforceable standard called a Maximum Contaminant Level (MCL). MCLs are set as close to the MCLGs as possible, considering the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

The MCL has also been set at 7 M.L. because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to remove this contaminant should it occur in drinking water.

These drinking water standards and the regulations for ensuring these standards are met, are called National Primary Drinking Water Regulations. All public water supplies must abide by these regulations.

## What are the health effects?

Short-term: Asbestos is not known to cause any health problems when people are exposed to it at levels above the MCL for relatively short periods of time.

Long-term: Asbestos has the potential to cause the following effects from a lifetime exposure at levels above the MCL: lung disease; cancer.

## How much Asbestos is produced and released to the environment?

Asbestos fibers may be released from natural sources such as erosion of asbestos-containing ores, but the primary source is through the wear or breakdown of asbestos-containing materials, particularly from

the wastewaters of mining and other industries, and by the use of asbestos cement pipes in water supply systems.

From 1987 to 1993, according to the Toxics Release Inventory, asbestos releases to water and land totaled nearly 9 million lbs. These releases were primarily from asbestos products industries which use asbestos in roofing materials, friction materials, and cement. The largest releases occurred in Pennsylvania and Louisiana.

## What happens to Asbestos when it is released to the environment?

As a naturally occurring substance, asbestos can be present in surface and ground water. Small fibers may be carried long distances by water currents before settling. Asbestos fibers do not bind to soils, but nevertheless do not migrate to ground water through soils. Asbestos is not expected to accumulate in aquatic life.

## How will Asbestos be detected in and removed from my drinking water?

The regulation for asbestos became effective in 1992. Between 1993 and 1995, EPA required your water supplier to collect water samples once and analyze them to find out if asbestos is present above 7 M.L.. If it is present above this level, the system must continue to monitor this contaminant once every 3 months.

If contaminant levels are found to be consistently above the MCL, your water supplier must take steps to reduce the amount of asbestos so that it is consistently below that level. The following treatment methods have been approved by EPA for removing asbestos: Coagulation/Filtration, Direct and Diatomite Filtration, Corrosion Control.

## How will I know if Asbestos is in my drinking water?

If the levels of asbestos exceed the MCL, the system must notify the public via newspapers, radio, TV and other means. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

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## Drinking Water Standards:

MCLG: 7 M.L. (million fibers per liter)

MCL: 7 M.L.

## Asbestos Releases to Water and Land, 1987 to 1993 (in pounds):

	Water	Land
<b>TOTALS</b>	<b>32,650</b>	<b>8,620,439</b>

Top Five States*
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PA	0	2,945,049
LA	61	2,256,400
TX	0	1,737,200
AR	1,000	568,227
VA	0	480,000

	Major Industries*	
Asbestos products	3,005	2,510,227
Alkalis, chlorine	1,973	2,256,404
Industrial organic chems	0	1,230,000
Asphalt felts, coatings	5	871,067
Auto parts	0	563,694
Petroleum refining	0	314,560
Plastic pipes	0	235,200
Shipbuilding, repairing	0	211,400

\* Water/Land totals only include facilities with releases greater than a certain amount - usually 1000 to 10,000 lbs.

## Learn more about your drinking water!

EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect and upgrade the supply of safe drinking water. Your water bill or telephone books government listings are a good starting point.

Your local water supplier can give you a list of the chemicals they test for in your water, as well as how your water is treated.

Your state Department of Health/Environment is also a valuable source of information.

For help in locating these agencies or for information on drinking water in general, call: EPAs Safe Drinking Water Hotline: (800) 426-4791.

For additional information on the uses and releases of chemicals in your state, contact the: Community Right-to-Know Hotline: (800) 424-9346.