

Consumer Factsheet on: ALACHLOR

[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 Alachlor and how is it used?

Alachlor is an odorless, white solid. The greatest use of alachlor is as a herbicide for control of annual grasses and broadleaf weeds in crops, primarily on corn, sorghum and soybeans. Alachlor is the second most widely used herbicide in the United States, with particularly heavy use on corn and soybeans in Illinois, Indiana, Iowa, Minnesota, Nebraska, Ohio, and Wisconsin.

The list of trade names given below may help you find out whether you are using this chemical at home or work.

Trade Names and Synonyms:

Alochlor
Lasagrin
Lassagrin
Lasso
Lazo;
Metachlor
Pillarzo
Alanox
Alanex
Chimichlor

Why is Alachlor 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 alachlor has been set at zero because EPA believes this level of protection would not cause any of the long-term effects 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 been set at 2 parts per billion (ppb) 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: EPA has found alachlor to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: slight skin and eye irritation.

Long-term: Alachlor has the potential to cause the following effects from a lifetime exposure at levels above the MCL: damage to liver, kidney, spleen; lining of nose and eyelids; cancer.

How much Alachlor is produced and released to the environment?

The major source of environmental release of alachlor is through its manufacture and use as a herbicide. Alachlor was detected in rural domestic well water by EPA's National Survey of Pesticides in Drinking Water Wells. EPA's Pesticides in Ground Water Database reports detections of alachlor in ground water at concentrations above the MCL in at least 15 States.

What happens to Alachlor when it is released to the environment?

If released to soil, alachlor can be broken down by bacteria and sunlight, usually within two months. However, alachlor does not bind to most soils very well and may either evaporate or leach into ground water.

Sunlight and bacterial action are also important for degrading alachlor in surface water, but evaporation generally does not occur. Once alachlor enters ground water, its break down is very slow.

The bioconcentration of alachlor in aquatic organisms is not important. Any alachlor taken up by plants or animals is quickly eliminated.

How will Alachlor be Detected in and Removed from My Drinking Water?

The regulation for alachlor became effective in 1992. Between 1993 and 1995, EPA required your water supplier to collect water samples every 3 months for one year and analyze them to find out if alachlor is present above 0.2 ppb. If it is present above this level, the system must continue to monitor this contaminant.

If contaminant levels are found to be consistently above the MCL, your water supplier must take steps to reduce the amount of alachlor so that it is consistently below that level. The following treatment methods have been approved by EPA for removing alachlor: Granular activated charcoal.

How will I know if Alachlor is in my drinking water?

If the levels exceed the MCL, 2 ppb, 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.

Drinking Water Standards:

Mclg: zero

Mcl: 2 ppb

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 book's 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: EPA's 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