

Alachlor

What is alachlor?

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.

What happens to alachlor when it enters 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.

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 can alachlor affect my health?

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 likely is alachlor to cause cancer?

Alachlor has been evaluated for carcinogenic activity in rats and mice. In accordance with the 1996 EPA proposed Guidelines for Carcinogen Risk Assessment, alachlor was classified as "likely" to be a human carcinogen at high doses, but "not likely" at low doses. Based on numerous studies submitted by the registrant that were reviewed by Agency scientists, as well as an external peer review panel, it was agreed that a margin of

exposure (MOE) approach (indicative of a non-linear dose response) should be used for the risk assessment.

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.

*This factsheet was adapted from [ATSDR](#).
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