

US EPA ARCHIVE DOCUMENT

Consumer Factsheet on: PICLORAM

[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 Picloram and how is it used?

Picloram is a crystalline organic solid with a chlorine-like odor. It is used in salt form as a systemic herbicide for controlling annual weeds on crops, and in combination with 2,4-D or 2,4,5-T against perennials on non-croplands for brush control. Picloram is used to control bitterweed, knapweed, leafy spurge, locoweed, larkspur, mesquite, prickly pear, and snakeweed on rangeland in the western states.

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:

"Agent White"
Tordon

Why is Picloram 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 picloram has been set at 0.5 parts per million (ppm) 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 0.5 ppm 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 picloram to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: damage to central nervous system, weakness, diarrhea, weight loss.

Long-term: Picloram has the potential to cause the following effects from a lifetime exposure at levels above the MCL: liver damage.

How much Picloram is produced and released to the environment?

EPA estimates that 300,000 lbs. of picloram were produced in the US in 1982.

Picloram is released to the environment primarily from its application as a herbicide, and also during its production and handling.

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

Picloram is the most persistent of its family of herbicides. It does not adhere to soil and so may leach to groundwater, and has in fact been detected there. It is degraded in soil and water mainly by microbes. Picloram has very little tendency to accumulate in aquatic life.

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

The regulation for picloram became effective in 1994. 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 picloram is present above 0.1 part per billion. 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 picloram so that it is consistently below that level. The following treatment methods have been approved by EPA for removing picloram: Granular activated charcoal.

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

If the levels of picloram exceed the MCL, 0.5 ppm, 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: 0.5 ppm

Mcl: 0.5 ppm

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