



Pat Quinn, Governor  
Illinois Department of Public Health

## Environmental Health FACT SHEET

### **Alachlor And Atrazine In Groundwater**

This fact sheet provides answers to basic questions about alachlor and atrazine in groundwater. It will explain what alachlor and atrazine are, where they can be found, how they can affect your health, and what you can do to prevent or reduce exposure to them.

#### **What are alachlor and atrazine?**

Alachlor and atrazine are used as selective herbicides for controlling grasses and broadleaf weeds. They are usually applied to the soil surface either before or just after a crop has emerged. Alachlor is used mainly on corn and soybean fields, but also can be used in commercial nurseries. Atrazine is used mainly on corn fields.

Alachlor is usually sold under the trade name "Lasso," but other names include "Chimiclor," "Alanox," and "Pilarzo." Atrazine is sold under the trade names "AAtrex" and "Azinotox 500." Alachlor and atrazine also are components of other herbicide mixtures.

Products containing alachlor and atrazine are classified as "restricted use" herbicides. Restricted use herbicides may only be used by certified applicators or under the supervision of a certified applicator. One reason the use of alachlor and atrazine has been restricted is because of concerns about groundwater contamination.

#### **How do alachlor and atrazine get into the environment?**

Alachlor and atrazine mainly enter the environment through application to farm fields. These herbicides also can get into the environment if they are improperly stored or mixed before application. Groundwater contamination may occur when alachlor or atrazine moves from an application or spill on soil into a shallow aquifer. Improperly constructed wells have a high risk of contamination.

#### **How might I be exposed to alachlor and atrazine?**

Exposure to alachlor and atrazine in groundwater occurs mainly by drinking contaminated water. You also may be exposed to small amounts through your skin while bathing or

showering in contaminated water. Alachlor and atrazine do not evaporate well, so you are not likely to breathe vapors of these herbicides.

### **How can alachlor and atrazine affect my health?**

Most studies of health effects due to exposure to alachlor and atrazine have been done with animals. Alachlor can cause skin or eye irritation. Drinking water that contains alachlor for long periods may damage the liver, kidneys, eyes and spleen. There is no evidence that this herbicide causes cancer in humans, but it has been linked to tumors in mice and rats.

Atrazine also can cause skin and eye irritation, as well as skin allergies. Drinking water that contains atrazine for long periods may damage the heart and liver. Short-term exposure to low levels of this herbicide are unlikely to cause health problems. While there is no evidence that atrazine causes cancer in humans, it has been linked to tumors in rats.

### **Are there any guidelines to protect human health?**

The U.S. Environmental Protection Agency has set a maximum contaminant level (MCL) for drinking water of 2 micrograms per liter for alachlor and 3 micrograms per liter for atrazine. A microgram per liter is comparable to one drop of herbicide in 16,000 gallons of water. MCLs are meant to protect public health and apply to all public drinking water supplies.

### **How can I reduce or eliminate my exposure to alachlor and atrazine in groundwater?**

Several management practices can reduce or prevent the contamination of groundwater. These include proper well construction and appropriate herbicide handling practices. If your well is contaminated, using quality bottled water for drinking purposes will greatly reduce your exposure to these herbicides. Alachlor and atrazine in drinking water may be reduced or eliminated by filters containing granular activated carbon. However, these filter systems must be serviced regularly to work properly.

### **Where can I get more information?**

Illinois Department of Public Health  
Division of Environmental Health  
525 W. Jefferson St.  
Springfield, IL 62761  
217-782-5830  
TTY (hearing impaired use only) 800-547-0466

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