



Chemicals in Private Drinking Water Wells Fact Sheet Florida Department of Health, Bureau of Environmental Health

This fact sheet discusses possible health risks from exposure to low levels of 1,2-Dichloropropane typically found in drinking water wells.

1,2-Dichloropropane

What is 1,2-dichloropropane?

1,2-Dichloropropane is a colorless, flammable liquid. It smells like chloroform and it is somewhat soluble in water. Some uses are as a solvent or pesticide.

Production in the United States has gone down over the past 20 years. Most uses have discontinued. Today, almost all goes towards making tetrachloroethylene and several other related chlorinated chemicals.

How might exposure to 1,2-dichloropropane in drinking water occur?

- Run-off into surface water.
- Leaching into ground water
- Getting into drinking water from improper handling of waste

Most people are not likely to be exposed to this chemical since it is no longer used very much. However, people who live near a waste site containing 1,2-dichloropropane could come into contact by drinking contaminated groundwater.

What is the standard for 1,2-dichloropropane in drinking water?

The Florida Department of Environmental Protection's drinking water standard for 1,2-dichloropropane is 5 micrograms per liter (5 ug/L). There is no required sampling of private drinking water wells.

How can 1,2-dichloropropane affect my health?

Drinking water standards are set at very low levels. Drinking water every day at or below the drinking water standard for your entire lifetime is unlikely to cause illness.

To set drinking water standards, scientists study reports of people exposed to chemicals at work. They also study reports of experiments with animals. From these reports, they determine a "no-effect level" or level that doesn't cause illness. Then, to be on the safe side, scientists set drinking water standard hundreds or thousands of times less than the "no-effect level." Therefore, drinking water with levels slightly above the standard for a short time does not significantly increase the risk of illness. Health risks increase as the levels of a chemical (or how long a person drinks it) increases.

The type and severity of health effects associated with exposure to a particular chemical depends on a number of factors:

- How much of the chemical was someone exposed to each time
- How long did the exposure last?
- How often did the exposure occur?
- What was the route of exposure (eating, drinking, or breathing)?

How chemical exposures may affect someone can range widely from one person to the next. A number of personal factors also determine health effects. These include:

- How old are they?

- What gender are they?
- Is the person generally healthy or do they already have other health problems?
- What are their health habits? (For instance, do they drink alcohol or smoke tobacco?)
- How likely are chemical exposures to affect someone, in general?

Little information is available concerning likely health effects from drinking water with the low levels of 1,2-dichloropropane typically found in ground water near contaminated sites.

Can drinking water with 1,2-dichloropropane in it cause cancer?

The ability of 1,2-dichloropropane to cause cancer in humans is unknown. 1,2-dichloropropane causes cancer in some animal experiments. Based on this information, the U.S. Environmental Protection Agency has classified it as a probable human carcinogen. The drinking water standard is set to protect against the risk of cancer.

Is there a medical test for 1,2-dichloropropane exposures?

Urine and blood tests can find out if an exposure has occurred. Such tests cannot predict harmful effects. Because tests take special equipment, a doctor's office usually cannot do them.

Is it safe to keep drinking water with (chemical) in it?

Levels of 1,2-dichloropropane less than the drinking water standard are not likely to cause illness. Drinking water with levels slightly above the drinking water standard for a short time period does not significantly increase the risk of illness. However, because health risks increase as the levels of a chemical (or how long a person drinks it) increases, it is best to drink water that meets standards.

For additional health information, please call the Florida Department of Health at 850-245-4240 or visit us online at www.floridahealth.gov/environmental-health/drinking-water/Chemicals-HALs.html

For more information about the health effects from exposure to 1,2-dichloropropane in different situations and at higher levels than those usually found in drinking water wells, please see the ATSDR ToxFAQs for 1,2-dichloropropane at www.atsdr.cdc.gov/toxfaqs/tfacts134.pdf