



## Chemicals in Private Drinking Water Wells Fact Sheet

Florida Department of Health, Division of Environmental Health

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

### 1,2-Dichloropropane

#### What is 1,2-Dichloropropane?

1,2-Dichloropropane is a colorless, synthetic, flammable liquid. It smells like chloroform. It is somewhat soluble in water. It is used as a solvent and pesticide.

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

#### How might I be exposed to 1,2-Dichloropropane in my drinking water?

- Run-off into surface water.
- Leach into ground water
- Get into drinking water when waste is not properly disposed.

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 be exposed by drinking contaminated groundwater.

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

The Florida Department of Environmental Protection's (DEP) 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 standards hundreds or thousands of times less than the "no-effect level." Therefore, drinking water with levels slightly above the drinking water standard for a short time period does not significantly increase the risk of illness. The risk of illness, however, increases as the level of chemical increases and the length of time you drink the water 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? (Did someone eat, drink or breathe the chemical into their body?)

Health effects are also determined by a number of personal factors. From person to person, how someone is affected by a chemical exposure ranges widely. The drinking water standard is set to protect the most sensitive individuals. Health effects are also determined by a number of personal factors. 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 they to be affected by exposure to a chemical, in general?

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

#### **How likely is 1,2-Dichloropropane to cause cancer?**

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

#### **Is there a medical test to see if you have been exposed to 1,2-Dichloropropane?**

Urine and blood tests can be used to find out if you have been exposed to it. These tests cannot predict whether you will suffer harmful effects. Because special equipment is needed, these tests are not usually done in the doctor's office.

#### **Should I continue to use my drinking water if 1,2-Dichloropropane is found?**

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. Because the risk of illness does, however, increase as the level of chemical increases and the length of time you drink the water increases, you should seek drinking water that meets the drinking water standard.

**For additional health information:** Please call the Florida Department of Health toll-free help line 877-798-2772 weekdays from 10:00 a.m. to 7:00 pm. Outside of Florida, please call 850-245-4299 between 8:00 a.m. and 5:00 p.m. Or visit us online at: [www.myfloridaeh.com](http://www.myfloridaeh.com)

For more information about the health effects from exposure to this chemical 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: <http://www.atsdr.cdc.gov/tfacts134.pdf>