What is 1,1,2-trichloroethane?

1,1,2-Trichloroethane is a colorless, sweet-smelling liquid. It can be dissolved in water and evaporates easily.

1,1,2-Trichloroethane is used to dissolve other substances and to make other chemicals. It can also be formed when other chemicals break down in the environment.

What happens to 1,1,2-trichloroethane in the environment?

1,1,2-Trichloroethane breaks down slowly in the air and can travel long distances through the air.

1,1,2-Trichloroethane evaporates into air quickly from fast-moving water and from soil that is on the surface. 1,1,2-Trichloroethane does not stick to the soil and can get into the groundwater.

How can I be exposed to 1,1,2-trichloroethane?

Most people are not likely to be exposed to 1,1,2-trichloroethane. You may be exposed from breathing certain paints, adhesives, or cleaning agents. If you live near a hazardous waste site, you might be exposed to 1,1,2-trichloroethane from contaminated air, water, or dirt. However, it rarely has been found to move from contaminated sites through water and into homes.

How can 1,1,2-trichloroethane affect my health?

Most of the information on health effects of 1,1,2-trichloroethane come from studies done in animals.

When animals breathed high levels of 1,1,2-trichloroethane for a short or long period of time, it led to liver damage, effects on the nervous system (animals became sleepy and moved around more slowly), and damage to their lungs and cells in the nose.

Animals that swallowed high levels of 1,1,2-trichloroethane for a short period of time had damage to their liver, kidneys, stomach, nervous system, and immune system.
Can 1,1,2-trichloroethane cause cancer?

One human study showed no relationship between exposure to 1,1,2-trichloroethane in the air and kidney cancer in workers. No other studies in humans have looked at the relationship between exposure to 1,1,2-trichloroethane and cancer.

In rodents, long-term oral exposure to 1,1,2-trichloroethane resulted in liver and adrenal gland cancer in mice, but not in rats. In another study, rats did not develop cancer after long-term exposure of 1,1,2-trichloroethane on their skin.

The U.S. Environmental Protection Agency (EPA) has classified 1,1,2-trichloroethane as a possible carcinogen (causing cancer). The International Agency for Research on Cancer (IARC) has determined that 1,1,2-trichloroethane is not classifiable as to its carcinogenicity in humans. The Department of Health and Human Services (HHS) has not evaluated the carcinogenicity of 1,1,2-trichloroethane.

Can I get a medical test to check for 1,1,2-trichloroethane?

Tests are available to measure levels of 1,1,2-trichloroethane and its breakdown products in samples of your breath, blood, and urine. These tests must be done soon after you were exposed because 1,1,2-trichloroethane does not stay in your body for a long time. These tests cannot predict whether you will have health problems from the exposure to 1,1,2-trichloroethane. Doctor’s offices do not routinely offer these tests. If you think that you have been exposed to any chemical, call your doctor or nurse, or poison control.

How can I protect myself and my family from 1,1,2-trichloroethane?

Most people do not need to take any special steps to avoid 1,1,2-trichlorethane in their daily lives. Consumers using solvents or adhesive containing 1,1,2-trichloroethane should avoid getting the products on their skin and avoid breathing in fumes. Always follow the directions on the label for safety. Workers using or producing 1,1,2-trichloroethane should use appropriate personal protective equipment. Children should avoid playing in dirt or water near hazardous waste sites where 1,1,2-trichloroethane has been found.

For more information:

Call CDC-INFO at 1-800-232-4636, or submit your question online at https://wwwn.cdc.gov/dcs/ContactUs/Form

Go to ATSDR’s Toxicological Profile for 1,1,2-trichloroethane: https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=796&tid=155

Go to ATSDR’s Toxic Substances Portal: https://wwwn.cdc.gov/TSP/index.aspx

Find & contact your ATSDR Regional Representative at http://www.atsdr.cdc.gov/DRO/dro_org.html