What is 1,2,3-trichloropropane?

1,2,3-Trichloropropane is an industrial chemical that is not found naturally in the environment. It is a colorless liquid with a sweet but strong smell. 1,2,3-Trichloropropane is used to make other chemicals.

What happens to 1,2,3-trichloropropane in the environment?

1,2,3-Trichloropropane in the atmosphere breaks down when exposed to sunlight. It evaporates from surface water and surface soil. It can move from deeper soil into the groundwater where it breaks down slowly. It is not expected to build up in fish or plants.

How can I be exposed to 1,2,3-trichloropropane?

You can be exposed to low levels of 1,2,3-trichloropropane in contaminated drinking water. 1,2,3-Trichloropropane can evaporate from household water and you may be exposed to it in the air during showering, bathing, or washing dishes.

Air near factories that make or use 1,2,3-trichloropropane and air near hazardous waste sites may contain low levels of it.

How can 1,2,3-trichloropropane affect my health?

Most of the 1,2,3-trichloropropane that you eat or drink will be absorbed into the body. Once in the body, it is rapidly broken down. 1,2,3-Trichloropropane and its breakdown products leave the body in the urine, feces, or exhaled breath usually within 2 days of exposure.

Most of the information that we have on how 1,2,3-trichloropropane can affect your health comes from studies in lab animals. Damage to the nose and liver have been seen in animals that inhaled large amounts of 1,2,3-trichloropropane. Animals that ingested large amounts of 1,2,3-trichloropropane had damage to liver, kidneys, nose, and lungs. Exposure to 1,2,3-trichloropropane can also result in blood changes. A study in rats orally exposed to 1,2,3-trichloropropane found a decrease in fertility and a decrease in the number of offspring.

The levels of 1,2,3-trichloropropane typically found in the environment are lower than levels known to cause health problems.
Can 1,2,3-trichloropropane cause cancer?

Studies of lab animals orally exposed to 1,2,3-trichloropropane showed tumors in a number of tissues including the stomach, mouth, kidneys, and pancreas.

The Department of Health and Human Services (HHS) concluded that 1,2,3-trichloropropane is reasonably anticipated to be a human carcinogen (causing cancer).

The U.S. Environmental Protection Agency (EPA) concluded that 1,2,3-trichloropropane is likely to be carcinogenic to humans.

The International Agency for Research on Cancer (IARC) considers it to be probably carcinogenic to humans.

Can I get a medical test to check for 1,2,3-trichloropropane?

Tests are available to measure levels of 1,2,3-trichloropropane in breath, urine, and blood. However, these tests cannot tell you how much 1,2,3-trichloropropane you have been exposed to or predict if you will have any health problems. These tests need to be done within a couple of days of exposure. Doctor’s offices do not routinely offer these tests.

How can I protect myself and my family from 1,2,3-trichloropropane?

Workers involved in the production or use of 1,2,3-trichloropropane should take protective measures to limit inhalation and dermal exposure.

People living near facilities that produce or use 1,2,3-trichloropropane could be at greater risk of exposure than the general population.

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 1,2,3-Trichloropropane: https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=912&tid=186

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