1,2-Dichloroethane - ToxFAQs™

What is 1,2-dichloroethane?

1,2-Dichloroethane is a colorless, oily liquid not found naturally in the environment. It is mainly used to help make vinyl products, such as polyvinyl chloride (PVC) pipes and other construction materials. 1,2-Dichloroethane is also used as a solvent or degreaser in industrial settings.

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

1,2-Dichloroethane is released into the air during its production or use, where it eventually breaks down when exposed to sunlight.

1,2-Dichloroethane is released into rivers and lakes in industrial waste, but it can evaporate into the air quickly. Once in the air, 1,2-dichloroethane can travel long distances and can stay in the air for over 5 months.

When released into the ground, 1,2-dichloroethane is expected to evaporate into the air or drain into groundwater.

1,2-Dichloroethane is not expected to naturally build up in the animal- or plant-sourced foods we eat.

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

You might breathe in 1,2-dichloroethane from contaminated air. You might eat, drink, or swallow 1,2-dichloroethane from contaminated drinking water. Skin contact to 1,2-dichloroethane is possible from contaminated water. There is a very small chance that it could also get on your skin from using old and discontinued household cleaning products, such as carpet and textile cleaners, that contain the chemical.

People living near hazardous waste sites containg 1,2-dichloroethane may be exposed to higher levels of it when compared to the general public.

In the past, 1,2-dichloroethane was been detected in breast milk of mothers exposed to contaminated air, water, or food. Therefore, it is possible for nursing infants to be exposed to 1,2-dichloroethane. However, use of 1,2-dichloroethane is less than in the past and there is no new information about levels in breast milk. Therefore, it is unclear how much 1,2-dichloroethane infants could be exposed to from breast milk. In animals, 1,2-dichloroethane has crossed the placenta to the fetus of exposed mothers.

How can 1,2-dichloroethane affect my health?

If a large amounts are breathed in, eaten, or swallowed, 1,2-dichloroethane can cause nausea, vomiting, blurred vision, difficulty breathing, liver or kidney problems, or death.

In animals, 1,2-dichloroethane causes effects similar to those seen in humans. Additionally, tumors have been found in the lungs, reproductive system, and liver of animals. Studies in animals have also shown that 1,2-dichloroethane can damage the immune system.

1,2-Dichloroethane is not expected to cause developmental effects in children. In animals, 1,2-dichloroethane may cause reproductive problems in males.

1,2-Dichloroethane

Can 1,2-dichloroethane cause cancer?

The U.S. Department of Health and Human Services (HHS) has determined that 1,2-dichloroethane may reasonably be anticipated to be a human carcinogen (causing cancer).

The U.S. Environmental Protection Agency (EPA) has classified 1,2-dichloroethane as a probable human carcinogen.

The International Agency for Research on Cancer (IARC) has determined that 1,2-dichloroethane is possibly carcinogenic to humans.

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

There are tests to measure 1,2-dichloroethane in breath, blood, and urine. These tests may be used to show that exposure to this chemical has occurred. However, these tests would have to be done soon after a suspected exposure (within a couple of days) because the chemical leaves the body quickly. These tests would only show if a person has been exposed and do not predict health problems. If you think you or anyone in your family has been exposed to 1,2-dichloroethane, contact your doctor, nurse, or poison control center.

How can I protect my family from 1,2-dichloroethane exposure?

- Avoid exposure to air, water, or dirt contaminated with high amounts of 1,2-dichloroethane.
- Do not let children play in the dirt near hazardous waste sites where 1,2-dichloroethane may have been discarded.
- If you work with or handle 1,2-dichloroethane, wear personal protective equipment to minimize breathing in or touching the chemical.
- Do not let the chemical stay on your skin or get in your eyes.
- To lower exposure in your house, follow the directions to safely throw away older cleaning products that might contain 1,2-dichloroethane.

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-Dichloroethane: https://wwwn.cdc.gov/TSP/substances/ToxSubstance.aspx?toxid=110

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