

1,2-Dichloroethane - ToxFAQs™

What is 1,2-dichloroethane?

1,2-Dichloroethane is a man-made, clear, oily liquid not found naturally in the environment. It is mainly used to help make plastic and vinyl products, such as polyvinyl chloride (PVC) pipes and other construction materials. 1,2-Dichloroethane is also added to leaded gasoline that is used in aircrafts, racing vehicles, and farm equipment. 1,2-Dichloroethane was formerly used in certain consumer household products such as cleaning agents and adhesives, but is generally no longer available for consumer purchase.



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 containing 1,2-dichloroethane may be exposed to higher levels of it when compared to the general public.
- Infants may be exposed to 1,2-dichloroethane in breast milk if the mother has been exposed through contaminated air, water, or food. 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 amount is 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, brains, and livers 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?

There have been several agencies and organizations both in the United States and internationally that have reviewed studies and made an assessment about whether 1,2-dichloroethane could cause cancer.

- The [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 blood, urine, adipose tissue, breast milk, and breath. However, these tests would have to be done soon after a suspected exposure (within a couple of days), since the chemical leaves the body quickly. These tests would only show if a person had been exposed and do not predict health problems.

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.

Want 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](#)

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

If you have any more questions or concerns, you can also find & contact your ATSDR Regional Representative at http://www.atsdr.cdc.gov/DRO/dro_org.html

