

1,2-Dibromoethane - ToxFAQs™

What is 1,2-dibromoethane?

Most of the 1,2-Dibromoethane in the environment is man-made. Small amounts occur naturally in the ocean (thought to be made by algae). It is a colorless liquid with a mild, sweet odor.

1,2-Dibromoethane has been used as a pesticide in soil, and on citrus, vegetable, and grain crops. Most of these uses have been stopped by the Environmental Protection Agency (EPA) since 1984. In the past, it was an additive in leaded gasoline; however, since leaded gasoline is now banned, it is no longer used for this purpose.

Uses today include treatment of logs for termites and beetles, control of moths in beehives, control of beetles on ornamental plants, and in production of dyes, resins, gums, and waxes.



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

1,2-Dibromoethane can enter the air and water from manufacturing use and leaks at waste sites. It will quickly evaporate into the air from surface water (ponds or lakes) and soil. Some 1,2-dibromoethane will stay attached to the soil and some will be able to move through the soil into groundwater.

1,2-Dibromoethane breaks down slowly in the air (over 4–5 months), more quickly in surface water (2 months), and hardly at all in groundwater. It is not expected to accumulate (build up) in plants or animals.

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

The most likely way to be exposed to 1,2-dibromoethane is from breathing air near processing facilities or drinking contaminated water. If you shower or bathe in contaminated water, you may breathe in 1,2-dibromoethane or have it touch your skin.

If you work at a place that uses 1,2-dibromoethane, you may be exposed by breathing in contaminated air.

How can 1,2-dibromoethane affect my health?

Some male workers who breathed 1,2-dibromoethane over a long period of time had reproductive effects, such as damage to their sperm. Vomiting and diarrhea has happened to workers that were exposed through 1,2-dibromoethane in the air and on the skin.

In animals, death occurred from breathing or eating high levels for any period of time. When rats breathed air or ate food containing lower levels of 1,2-dibromoethane for short or long periods of time, they had body weight loss or reduced weight gain, damage to the stomach, liver, kidneys, and sperm, and were less likely to have pups.

Exposure to 1,2-dibromoethane can occur by breathing air or drinking water that is contaminated. This chemical may damage sperm.

1,2-Dibromoethane

Can 1,2-dibromoethane cause cancer?

There is a single report of cancer in workers exposed to 1,2-dibromoethane for more than 6 years. Workers were likely exposed to high levels of 1,2-dibromoethane during their employment.

Rats and mice that breathed, ate, or had skin contact to 1,2-dibromoethane for long periods had cancer in many organs, including the lung, nose, stomach, liver, blood, and skin.

The [U.S. Department of Health and Human Services \(DHHS\)](#) has classified 1,2-dibromoethane as reasonably anticipated to be a human carcinogen (causing cancer).

The [U.S. Environmental Protection Agency \(EPA\)](#) has determined 1,2-dibromoethane is likely to be carcinogenic to humans.

The [International Agency for Research on Cancer \(IARC\)](#) has classified 1,2-dibromoethane as probably carcinogenic to humans.

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

Urine and blood tests may detect 1,2-dibromoethane; however, these test needs to be done at a special laboratory. These tests cannot always detect 1,2-dibromoethane because it leaves the body quickly after you are exposed. If it is detected, the test cannot predict whether you will have health problems.

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

If you use well water and live near an agricultural field, factory, or hazardous waste site, you can have your water tested for 1,2-dibromoethane. If found, actions can be taken to remove it. Keep children from playing near factories and hazardous waste sites to avoid coming in contact with 1,2-dibromoethane.

For more information:



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

Go to ATSDR's Toxicological Profile for 1,2-Dibromoethane: <https://www.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=726&tid=131>

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

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