

Ethylene Dibromide (C₂H₄Br₂)

What is Ethylene Dibromide?

Ethylene dibromide (EDB) is a colorless, heavy organic liquid with a mildly sweet chloroform-like odor. It is also known as 1,2-dibromoethane. Trade names include Bromofume and Dowfume.

Farmers used it to kill nematodes (worms) in soil around citrus, peanuts, and cotton plants. Anti-knock gasoline mixtures used it, particularly in aviation fuel. Other uses were as a solvent for resins, gums, and waxes; in waterproofing products; and in making dyes and drugs.

Does Ethylene Dibromide have any additional names?

EDB, Bromofume, Dowfume, Ethylene Bromide, 1,2-Dibromoethane, Dibromomethane

What are the known health effects?

The ability of EDB to cause cancer in humans is unknown. In rats and mice, EDB causes skin, lung, nose, stomach and liver cancer. The International Agency for Research on Cancer has determined they do not have enough proof to say that EDB causes cancer in humans, but they do have enough to say it causes cancer in animals. The U.S. Environmental Protection Agency has determined EDB as a probable human carcinogen.

How does exposure occur?

Possible sources of ethylene dibromide emissions to the ambient air are production and processing facilities. Exposure could occur from inhalation of ambient air near industries that use ethylene dibromide or through the ingestion of contaminated drinking water.

Is this contaminant regulated?

Yes, and water supplied to customers of Mount Laurel MUA is in compliance with USEPA and NJDEP requirements. The maximum concentration of Ethylene Dibromide permitted in drinking water is 0.05 ppb; water supplied to MLTMUA customers has not detected Ethylene Dibromide.

How can I reduce exposure?

Ethylene Dibromide can be removed from drinking water through granular activated carbon filtration.

Additional information for Ethylene Dibromide, including the information referenced, can be found at:

<https://www.epa.gov/sites/production/files/2016-09/documents/ethylene-dibromide.pdf>

<https://www.nj.gov/health/eoh/rtkweb/documents/fs/0877.pdf>