

US EPA ARCHIVE DOCUMENT

Consumer Factsheet on: DIBROMOCHLOROPROPANE

[List of Contaminants](#)

As part of the Drinking Water and Health pages, this fact sheet is part of a larger publication:
National Primary Drinking Water Regulations

This is a factsheet about a chemical that may be found in some public or private drinking water supplies. It may cause health problems if found in amounts greater than the health standard set by the United States Environmental Protection Agency (EPA).

What is DBCP and how is it used?

Dibromochloropropane, or DBCP is a dense yellow organic liquid with a pungent odor. It is used primarily as an unclassified nematocide for soil fumigation of cucumbers, summer squash, cabbage, cauliflower, carrots, snap beans, okra, aster, shasta daisy, lawn grasses and ornamental shrubs.

The list of trade names given below may help you find out whether you are using this chemical at home or work.

Trade Names and Synonyms:

DBCP
BBC 12
Fumagon
Fumazone
Nemabrom
Nemafum
Nemagon
Nemanax
Nemapaz
Nemaset
Nemazon
Gro-Tone Nematode
Durham Nematocide

Why is DBCP being Regulated?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine safe levels of chemicals in drinking water which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals.

The MCLG for DBCP has been set at zero because EPA believes this level of protection would not cause any of the potential health problems described below.

Based on this MCLG, EPA has set an enforceable standard called a Maximum Contaminant Level (MCL). MCLs are set as close to the MCLGs as possible, considering the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

The MCL has been set at 0.2 ppb because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to remove this contaminant should it occur in drinking water.

These drinking water standards and the regulations for ensuring these standards are met, are called National Primary Drinking Water Regulations. All public water supplies must abide by these regulations.

What are the Health Effects?

Short-term: EPA has found DBCP to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: kidney and liver damage and atrophy of the testes.

Long-term: DBCP has the potential to cause the following effects from a lifetime exposure at levels above the MCL: kidney damage and antifertility; cancer.

How much DBCP is produced and released to the environment?

In the past, release of DBCP to the environment occurred primarily from its fumigant and nematocide uses. In 1977, 831,000 pounds of DBCP was used in CA alone, mainly on grapes and tomatoes. In 1974, USA farmers applied 9.8 million pounds of DBCP on crops. All registrations of end use products were canceled in 1979 except for the use as a soil fumigant against nematodes on pineapples in Hawaii. This use was canceled in 1985.

What happens to DBCP when it is released to the environment?

DBCP released to soil will most likely evaporate or leach to groundwater. Break down by microbes is slow by comparison. Once in the atmosphere, DBCP is expected to be broken down fairly quickly by sunlight. DBCP is not likely to accumulate in aquatic life.

How will DBCP be Detected in and Removed from My Drinking Water?

The regulation for DBCP became effective in 1992. Between 1993 and 1995, EPA required your water supplier to collect water samples every 3 months for one year and analyze them to find out if DBCP is present above 0.02 ppb. If it is present above this level, the system must continue to monitor this contaminant.

If contaminant levels are found to be consistently above the MCL, your water supplier must take steps to reduce the amount of DBCP so that it is consistently below that level. The following treatment methods have been approved by EPA for removing DBCP: Granular activated charcoal together with Packed Tower Aeration.

How will I know if DBCP is in my drinking water?

If the levels of DBCP exceed the MCL, 0.2 ppb, the system must notify the public via newspapers, radio, TV and other means. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

Drinking Water Standards:

Mclg: zero

Mcl: 0.2 ppb

Learn more about your drinking water!

EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect and upgrade the supply of safe drinking water. Your water bill or telephone book's government listings are a good starting point.

Your local water supplier can give you a list of the chemicals they test for in your water, as well as how your water is treated.

Your state Department of Health/Environment is also a valuable source of information.

For help in locating these agencies or for information on drinking water in general, call: EPA's Safe Drinking Water Hotline: (800) 426-4791.

For additional information on the uses and releases of chemicals in your state, contact the: Community Right-to-Know Hotline: (800) 424-9346