TECHNICAL BULLETIN

HEALTH EFFECTS INFORMATION

Prepared by:
Department of Human Services
ENVIRONMENTAL TOXICOLOGY SECTION
Office of Environmental Public Health
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(CIS 1,2 – DCE)
CIS 1,2 - DICHLOROETHYLENE

For More Information Contact:

Environmental Toxicology Section
(971) 673-0440

Drinking Water Section
(971) 673-0405
CIS-1,2 - DCE

Cis-1,2 - DCE is a volatile organic chemical used in the manufacture of solvents. It is a manmade or synthetic chemical with no natural sources. There is little information on the current production and use of this compound. Release of Cis-1,2 - DCE to the environment can occur from manufacturing plants. Studies have shown that it may result as a natural degradation product of trichloroethylene (TCE) or of tetrachloroethylene (PCE) in the environment.

OCCURRENCE OF CIS-1,2 - DCE IN WATER SUPPLIES

When Cis-1,2 - DCE is released to surface waters it is expected to volatilize rapidly to air. Once released on to land, it migrates down through the soils and into the groundwater.

HEALTH EFFECTS OF DRINKING WATER CONTAMINATED WITH CIS-1,2 - DCE

Based on known effects of closely related compounds, repeated or prolonged exposure to Cis-1,2 - DCE may be injurious to liver and kidney tissues at very low levels. It is not known whether Cis-1,2 - DCE poses a cancer hazard.

The United States Environmental Protection agency (US EPA) has set a maximum allowable level of .07 milligrams per liter (mg/L) for Cis-1,2 - DCE in public water systems. The cancer risk of Cis-1,2 - DCE has not been classified by the US EPA.

WHAT TO DO ABOUT WATER CONTAMINATED WITH CIS-1,2 - DCE

Although a maximum allowable level will be set for Cis-1,2 - DCE, which is very protective of public health, the Department of Human Services recommends that exposure to this compound be kept as low as possible. To accomplish this, water suppliers and other affected persons can take a variety of actions, such as closing contaminated wells, finding other supplies, or installing treatment systems at contaminated wells.

Persons whose supplies exceed the limits or who do not wish to consume even smaller amounts of Cis-1,2 - DCE can take several actions for short-term protection, including using bottled water or using in-home treatment devices to treat water for drinking and cooking purposes. Those who want to obtain home treatment systems are encouraged to contact the Department of Human Services for
information on selecting the appropriate equipment.

**For More Information** on Cis-1,2 - DCE contact the Drinking Water Section at 971-673-0405.