1,1-Dichloroethane($C_2H_4Cl_2$)

What is 1,1-Dichloroethane?

1,1-Dichloroethane is a colorless, oily liquid with a sweet odor. 1,1-Dichloroethane is used mostly as an intermediate in the manufacture of 1,1,1-trichloroethane (1,1,1-TCE). It is also used in limited amounts as a solvent for cleaning and degreasing, and in the manufacture of plastic wrap, adhesives, and synthetic fiber.

Does 1,1-Dichloroethane have any additional names?

Ethylidene dichloride, Ethylidene chloride CFC-150a, 1,1-DCA Asymmetrical dichloroethane, 1,1-Ethylidene dichloride, Geminal dichloroethane.

What are the known health effects?

High levels of 1,1-dichloroethane inhalation exposure in humans results in central nervous system depression and a cardio stimulating effect resulting in cardiac arrhythmias. EPA has classified ethylidene dichloride as a Group C, possible human carcinogen.

How does exposure occur?

Breathing air containing 1,1-dichloroethane from industrial releases or hazardous waste sites as well as drinking contaminated water. Also, by touching contaminated soil, but little will enter the body due to 1,1-dichloroethane's high volatility.

Is this contaminant regulated?

Yes, and water supplied to Mount Laurel MUA customers is in compliance with NJDEP and USEPA standards. The maximum concentration of 1,1-Dichloroethane permitted in drinking water is 50 ppb; 1,1-Dichloroethane was previously detected (and in compliance with the standard) but it is not currently detected in water supplied to MLTMUA customers.

How can I reduce exposure?

1,1-Dichloroethane in drinking water can be removed at point of use by granular activated carbon.

Additional information regarding 1,1 Dichloroethane, including the information referenced, can be found at:
https://www.epa.gov/sites/production/files/2016-09/documents/ethylidene-dichloride.pdf
https://www.atsdr.cdc.gov/toxfaqs/tfacts133.pdf