

## What is 1,1-DICHLOROETHYLENE

Do you receive the TCEQ Notices with their mandatory wording and scratch your head wondering what you just read? Do not worry, you are not alone.

The Texas Commission on Environmental Quality more commonly known as TCEQ is the governing agency for our Public Water System. TCEQ monitors all public water systems to ensure that water systems are not exceeding certain chemicals in the water system. Public Water Systems are allowed certain levels of chemicals, when a public water system exceeds the allowed level of chemical we are required to notify the consumers of the water.

TCEQ has identified the chemical 1,1-DICHLOROETHYLENE as exceeding the Maximum Contaminant Level. The allowed level is .007 milligrams per liter. Based on a running annual average (RAA) for the 1<sup>st</sup> Quarter of the year the chemical value is .009 milligrams per liter. Clear as mud right?

How many cups are in a quart, quarts in a gallon....do you feel like you are back in school? So what is a Milligram per liter? Milwaukee Institute gives a great explanation, "A liter of water (which is a metric measure of volume, or capacity) weighs 1 kilogram. That's 1,000 grams. Now think about a milligram. It is 1/1000<sup>th</sup> of a gram, making it 1/1,000,000<sup>th</sup> of a kilogram. Put another way, a liter of water weighs 1,000,000 milligrams. One million milligrams..."



One million milligrams makes up one of these . We are over our allowed Maximum contaminant by .002 milligrams per liter. Which means we are over by **two thousandths** of a milligram per liter. It is a very small number. It is a number that we care about and are working diligently on reducing the amount of 1,1-DICHLOROETHYLENE at one of our Water Well sites. 1,1-Dichloroethene can enter the environment when it is released to the air during its production or released to surface water or soil as a result of waste disposal. Most 1,1-dichloroethene evaporates quickly and mainly enters the environment through the air, although some enters into rivers or lakes.

From the CDC: <http://www.atsdr.cdc.gov/PHS/PHS.asp?id=720&tid=130>

1,1-Dichloroethene can enter soil, water, and air in large amounts during an accidental spill. 1,1-Dichloroethene can also enter the environment as a breakdown product of other chemicals in the environment. The way 1,1-dichloroethene and its breakdown products leave the body depends on the amount of 1,1-dichloroethene that enters the body. Low or moderate levels breathed in (25-200 ppm) or taken by mouth (up to 50 milligrams per kilogram of body weight) leave the body mainly as breakdown products in the urine. As the amount of 1,1-dichloroethene that enters the body increases, more and more 1,1-dichloroethene leaves the body in the exhaled breath. Whether 1,1-dichloroethene is inhaled or taken by mouth it leaves the body in about the same way. 1,1-Dichloroethene is not stored very much in the body when low-to-moderate amounts enter the body.