OKLAHOMA Environmental Quality

Volatile Organic Chemicals



Volatile Organic Compounds (VOCs) are included in EPA's Chemical Contaminant Phase II/V Rule for drinking water. VOCs are any compound containing carbon that can evaporate into the air. VOCs can occur in drinking water sources as a result of contamination by spills or improper disposal of products containing VOCs. Some of the more well-known VOCs are Benzene, Toluene and Xylenes.

The Federal Safe Drinking Water Act

The Federal Safe Drinking Water Act requires all of the nation's public water supplies to be tested periodically for various contaminants. VOC analysis of drinking water is one of several services provided by DEQ's State Environmental Laboratory (SEL).

The purpose of this Fact Sheet is to assist you with interpreting test results. SEL can test for up to 21 VOCs regulated in public water supplies. Table 1 shows EPA's Drinking Water Maximum Contaminant Levels (MCLs) for these chemicals. Drinking water that exceeds any of these MCLs is not considered safe for human consumption. Specific health effects vary by contaminant.

Volatile Organic Compounds are measured in microgram per liter (µg/L) of water. One µg/L is equivalent to one part per billion. Test results below the lowest reportable concentration are indicated by a less than symbol (<).

Should you have any questions concerning testing or test results, please contact the SEL at (405) 702-1000, (866) 412-3057 or seld@deq.ok.gov for assistance.

For additional information on this subject you may contact your local DEQ representative or the Water Quality Division of the Department of Environmental Quality at (405) 702-8100.

Table 1. Drinking Water Maximum Contaminant Levels

Chemical Parameter	MCL (µg/L)
1,1 Dichloroethene	7
1,1,1-Trichloroethane	200
1,1,2-Trichloroethane	5
1,2-Dichloroethane	5
1,2-Dichloropropane	5
1,2,4-Trichlorobenzene	70
Benzene	5
Carbon Tetrachloride	5
cis-1,2-Dichloroethene	70
Dichloromethane	5
Ethylbenzene	700
Monochlorobenzene	100
o-Dichlorobenzene	600
para-Dichloroenzene	75
Styrene	100
Tetrachloroethene	5
Toluene	1,000
trans-1,2-Dichloroethene	100
Trichloroethene	5
Vinyl Chloride	2
Xylenes (total)	10,000

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