



VOC Monitoring in Wisconsin - Which Analytes are Required?

Many of the DNR's regulatory programs require monitoring for volatile organic compounds (VOCs). There are literally hundreds of different compounds that fall into this class of compounds. To assist laboratories doing volatiles work, the Laboratory Certification Program has put together the following list of commonly requested volatile organics based on shared lab methods. A laboratory could routinely monitor for these 68 VOCs and cover all DNR programs except solid waste assessment monitoring, wastewater permit applications, and hazardous waste groundwater monitoring. The 68 "common" VOCs are:

Acetone
Benzene
Bromobenzene
Bromodichloromethane
Bromoform
Bromomethane [Methyl Bromide]
Butylbenzene (n)
Butylbenzene (sec)
Butylbenzene (tert)
Carbon Disulfide
Carbon Tetrachloride
Chlorobenzene
[Monochlorobenzene]
Chloroethane [Ethyl Chloride]
Chloroform
Chloromethane [Methyl Chloride]
Chlorotoluene (2-)
Chlorotoluene (4-)
Di-isopropyl ether [isopropyl ether]
Dibromochloromethane [Chlorodibromomethane]
DBCP
[1,2-Dibromo-3-chloropropane, dibromochloropropane]
Dibromomethane [Methylene Bromide]
Dichlorobenzene (1,2-) [o-dichlorobenzene]
Dichlorobenzene (1,3-) [m-dichlorobenzene]
Dichlorobenzene (1,4-) [p-Dichlorobenzene]
Dichlorodifluoromethane [Freon 12]
Dichloroeth(y)ene (1,1-)
Dichloroeth(y)ene (cis-1,2-)
Dichloroeth(y)ene (trans-1,2-)

Dichloroethane (1,1-)
Dichloroethane (1,2-)
Dichloropropane (1,2-)
Dichloropropane (1,3-)
Dichloropropane (2,2-)
Dichloropropene (cis+trans, 1,3-)
Dichloropropylene (1,1-)
Ethylbenzene
EDB [1,2-Dibromoethane, ethylene dibromide, dibromoethane]
Hexachlorobutadiene
Hexane [n-Hexane]
Isopropylbenzene
Isopropyltoluene (p)
Methyl ethyl ketone [MEK, 2-Butanone]
Methyl isobutyl ketone [MIBK, 4-methyl-2-pentanone]
Methyl tert-butyl ether [MTBE, 2-methoxy-2-methylpropane]
Methylene Chloride [Dichloromethane]
Naphthalene
Propylbenzene (n)
Styrene [Ethenylbenzene]
Tetrachloroethane (1,1,1,2 -)
Tetrachloroethane (1,1,2,2 -)
Tetrachloroethylene [Perchloroethylene]
Tetrahydrofuran
Toluene
Trichlorobenzene (1,2,3-)
Trichlorobenzene (1,2,4-)
Trichloroeth(y)ene [TCE]
Trichloroethane (1,1,1-)
Trichloroethane (1,1,2-)
Trichlorofluoromethane [Freon 11]

Trichloropropane (1,2,3-)
Trimethylbenzene (1,2,4-)
Trimethylbenzene (1,3,5-)
Trichloro (1,1,2)
trifluoroethane (1,2,2)
Vinyl Chloride
Xylenes, Total

An additional 20 VOCs are covered by the solid waste assessment monitoring, wastewater permit application, and hazardous waste groundwater monitoring. These VOCs include:
Acetonitrile
Acrolein
Acrylonitrile
Allyl Chloride
[3-chloropropene]
Bromochloromethane
Chloroprene
Dichloro-2-butene (trans-1,4-)
Dichloropropene (2,3-)
Dioxane (1,4-) [p-Dioxane]
Ethyl Methacrylate
Hexanone (2-) [Methyl butyl Ketone]
Isobutyl Alcohol
Methacrylonitrile
Methyl iodide
Methyl methacrylate
N-Nitroso-di-n-butylamine
Nitrobenzene
Picoline (2-)
Toluidine (o-)
Vinyl Acetate