Appendix 9. Summary of concentrations of selected volatile organic compounds in domestic well samples in comparison to U.S. Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs) for regulated compounds and to Health-Based Screening Levels (HBSLs) for unregulated compounds, and concentrations within one order of magnitude of MCLs and HBSLs.

[µg/L, micrograms per liter; --, no MCL established or HBSL reported]

Compound name	Number of samples	Maximum Contaminant Level			Health-Based Screening Level		
		MCLs (µg/L)	Number of concentrations greater than the MCL	Number of concentrations within one order of magnitude[1]	HBSLs (µg/L)	Number of concentrations greater than the HBSL	Number of concentrations within one order of magnitude[2]
Fumigants							
Bromomethane	2,156	--	--	--	[3, 4]100	0	0
Dibromochloropropane	1,962	0.2	14	1	--	--	--
1,4-Dichlorobenzene	2,399	75	0	0	--	--	--
1,2-Dichloropropane	2,400	5	3	6	--	--	--
cis-1,3-Dichloropropene	1,208	--	--	--	[4, 5, 6].3	0	0
trans-1,3-Dichloropropene	1,207	--	--	--	[4, 5, 6].3	0	0
Total 1,3-dichloropropenes[7]	1,208	--	--	--	[4, 5].3	0	0
Ethylene dibromide	2,085	.05	3	0	--	--	--
1,2,3-Trichloropropane	2,092	--	--	--	[3]40	0	0
Gasoline hydrocarbons							
Benzene	2,401	5	0	2	--	--	--
Ethylbenzene	2,401	700	0	0	--	--	--
Isopropylbenzene	1,932	--	--	--	[3]700	0	0
Naphthalene	1,939	--	--	--	[3]100	0	0
Styrene	2,395	100	0	0	--	--	--
Toluene	2,386	1,000	0	0	--	--	--
o-Xylene	1,214	[8]10,000	0	0	--	--	--
m- and *p*-Xylene[9]	1,208	[8]10,000	0	0	--	--	--
Total xylenes[7]	2,388	10,000	0	0	--	--	--
Organic synthesis compounds							
Acrolein	445	--	--	--	[3]4	0	0
Acrylonitrile	1,220	--	--	--	[5].06	0	0
1,1-Dichloroethene	2,400	7	1	3	--	--	--
Hexachlorobutadiene	1,939	--	--	--	[3]1	0	0
Vinyl chloride	2,401	2	0	2	--	--	--
Refrigerants							
Dichlorodifluoromethane	2,401	--	--	--	[3]1,000	0	0
Trichlorofluoromethane	2,401	--	--	--	[3]2,000	0	0
Trichlorotrifluoroethane	2,083	--	--	--	[3]200,000	0	0

Appendix 9. Summary of concentrations of selected volatile organic compounds in domestic well samples in comparison to U.S. Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs) for regulated compounds and to Health-Based Screening Levels (HBSLs) for unregulated compounds, and concentrations within one order of magnitude of MCLs and HBSLs.—Continued

[µg/L, micrograms per liter; --, no MCL established or HBSL reported]

Compound name	Number of samples	Maximum Contaminant Level			Health-Based Screening Level		
		MCLs (µg/L)	Number of concentrations greater than the MCL	Number of concentrations within one order of magnitude[1]	HBSLs (µg/L)	Number of concentrations greater than the HBSL	Number of concentrations within one order of magnitude[2]
Solvents							
Carbon tetrachloride	2,400	5	0	3	--	--	--
Chlorobenzene	2,401	100	0	0	--	--	--
Chloromethane	2,059	--	--	--	[3]30	0	0
1,2-Dichlorobenzene	2,391	600	0	0	--	--	--
1,3-Dichlorobenzene	1,894	--	--	--	[3]600	0	0
1,2-Dichloroethane	2,383	5	0	3	--	--	--
cis-1,2-Dichloroethene	2,177	70	0	0	--	--	--
trans-1,2-Dichloroethene	2,241	100	0	0	--	--	--
Hexachloroethane	1,223	--	--	--	[10].7	0	0
Methylene chloride	2,398	5	0	9	--	--	--
Perchloroethene	2,371	5	5	17	--	--	--
1,2,4-Trichlorobenzene	1,939	70	0	0	--	--	--
1,1,1-Trichloroethane	2,401	200	0	1	--	--	--
1,1,2-Trichloroethane	2,156	5	0	0	--	--	--
Trichloroethene	2,400	5	6	9	--	--	--
Trihalomethanes							
Bromodichloromethane	2,400	[11]80	0	0	--	--	--
Bromoform	2,399	[11]80	0	1	--	--	--
Chloroform	2,400	[11]80	0	4	--	--	--
Dibromochloromethane	2,400	[11]80	0	1	--	--	--
Total trihalomethanes[7]	2,400	80	0	5	--	--	--

[1]Includes the number of concentrations equal to and less than the MCL that are within one order of magnitude of the MCL.

[2]Includes the number of concentrations equal to and less than the HBSL that are within one order of magnitude of the HBSL.

[3]Value calculated using USEPA's formula for Lifetime Health Advisory.

[4]Value is provisional and is under discussion with USEPA.

[5]The HBSL is a range that is based on USEPA's risk-specific dose at 10^{-6} to 10^{-4} cancer risk level. The lowest value of this range was used in this assessment.

[6]The HBSL is for total 1,3-dichloropropene mixed isomers (*cis*- and *trans*-1,3-dichloropropene).

[7]Not considered as 1 of the 55 compounds included in this assessment.

[8]The MCL is for total xylenes (*o*-, *m*-, and *p*-xylene).

[9]Considered as 2 of the 55 compounds included in this assessment.

[10]The HBSL was calculated using USEPA's Lifetime Health Advisory for Class C carcinogens.

[11]The MCL is for total trihalomethanes.