

Table 2A. Volatile organic compounds and gasoline additives, primary use or source, U.S. Geological Survey (USGS) parameter code, Chemical Abstract Service (CAS) number, laboratory reporting level (LRL) for the USGS National Water Quality Laboratory analytical schedule 2020, type of comparison threshold for ground-water detections, and the corresponding threshold value.

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Constituent (common name)	Primary use or source	USGS parameter code	CAS number	LRL (µg/L)	Threshold type	Threshold value (µg/L)
Acetone	Solvent	81552	67-64-1	6	na	na
Acrylonitrile	Organic synthesis	34215	107-13-1	0.8	RSD5-US	0.6
Benzene	Gasoline hydrocarbon	34030	71-43-2	0.021	MCL-CA	1
Bromobenzene	Solvent	81555	108-86-1	0.028	na	na
Bromochloromethane	Fire retardant	77297	74-97-5	0.12	HAL-US	90
Bromodichloromethane (THM)	Disinfection by-product	32101	75-27-4	0.028	MCL-US ¹	80
Bromoform (Tribromomethane, THM)	Disinfection by-product	32104	75-25-2	0.1	MCL-US ¹	80
2-butanone (MEK, Methyl ethyl ketone)	Solvent	81595	78-93-3	2	HAL-US	4,000
<i>n</i> -Butylbenzene	Gasoline hydrocarbon	77342	104-51-8	0.12	NL-CA	260
<i>sec</i> -Butylbenzene	Gasoline hydrocarbon	77350	135-98-8	0.06	NL-CA	260
<i>tert</i> -Butylbenzene	Gasoline hydrocarbon	77353	98-06-6	0.06	NL-CA	260
Carbon disulfide	Organic synthesis	77041	75-15-0	0.038	NL-CA	160
Carbon tetrachloride (Tetrachloromethane)	Solvent	32102	56-23-5	0.06	MCL-CA	0.5
Chlorobenzene	Solvent	34301	108-90-7	0.028	MCL-CA	70
Chloroethane	Solvent	34311	75-00-3	0.12	na	na
Chloroform (Trichloromethane, THM))	Disinfection by-product	32106	67-66-3	0.024	MCL-US ¹	80
Chloromethane	Refrigerant/organic synthesis	34418	74-87-3	0.17	HAL-US	30
3-Chloro-1-propene	Organic synthesis	78109	107-05-1	0.5	na	na
2-Chlorotoluene	Solvent	77275	95-49-8	0.04	NL-CA	140
4-Chlorotoluene	Solvent	77277	106-43-4	0.05	NL-CA	140
Dibromochloromethane (THM)	Disinfection by-product	32105	124-48-1	0.10	MCL-US ¹	80
1,2-Dibromo-3-chloropropane (DBCP)	Fumigant	82625	96-12-8	0.51	MCL-US	0.2
1,2-Dibromoethane (EDB)	Fumigant	77651	106-93-4	0.036	MCL-US	0.05
Dibromomethane	Solvent	30217	74-95-3	0.050	na	na
1,2-Dichlorobenzene	Solvent	34536	95-50-1	0.048	MCL-CA	600
1,3-Dichlorobenzene	Solvent	34566	541-73-1	0.03	HAL-US	600
1,4-Dichlorobenzene	Fumigant	34571	106-46-7	0.034	MCL-CA	5
<i>trans</i> -1,4-Dichloro-2-butene	Organic synthesis	73547	110-57-6	0.70	na	na
Dichlorodifluoromethane (CFC-12)	Refrigerant	34668	75-71-8	0.18	NL-CA	1,000
1,1-Dichloroethane	Solvent	34496	75-34-3	0.035	MCL-CA	5
1,2-Dichloroethane	Solvent	32103	107-06-2	0.13	MCL-CA	0.5
1,1-Dichloroethene (DCE)	Organic synthesis	34501	75-35-4	0.024	MCL-CA	6
<i>cis</i> -1,2-Dichloroethene	Solvent	77093	156-59-2	0.024	MCL-CA	6
<i>trans</i> -1,2-Dichloroethene	Solvent	34546	156-60-5	0.032	MCL-CA	10
Dichloromethane (Methylene chloride)	Solvent	34423	75-09-2	0.06	MCL-US	5
1,2-Dichloropropane	Fumigant	34541	78-87-5	0.029	MCL-US	5
1,3-Dichloropropane	Fumigant	77173	142-28-9	0.06	na	na
2,2-Dichloropropane	Fumigant	77170	594-20-7	0.05	na	na
1,1-Dichloropropene	Organic synthesis	77168	563-58-6	0.026	na	na
<i>cis</i> -1,3-Dichloropropene	Fumigant	34704	10061-01-5	0.05	RSD5-US ²	4
<i>trans</i> -1,3-Dichloropropene	Fumigant	34699	10061-02-6	0.09	RSD5-US ²	4
Diethyl ether	Solvent	81576	60-29-7	0.08	na	na
Diisopropyl ether (DIPE)	Gasoline oxygenate	81577	108-20-3	0.10	na	na
Ethylbenzene	Gasoline hydrocarbon	34371	100-41-4	0.030	MCL-CA	300
Ethyl <i>tert</i> -butyl ether (ETBE)	Gasoline oxygenate	50004	637-92-3	0.030	DLR	3
Ethyl methacrylate	Organic synthesis	73570	97-63-2	0.18	na	na

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Constituent (common name)	Primary use or source	USGS parameter code	CAS number	LRL (µg/L)	Threshold type	Threshold value (µg/L)
1-Ethyl-2-methylbenzene (o-Ethyl toluene)	Gasoline hydrocarbon	77220	611-14-3	0.06	na	na
Hexachlorobutadiene	Organic synthesis	39702	87-68-3	0.14	RSD5-US	9
Hexachloroethane	Solvent	34396	67-72-1	0.14	HAL-US	1
2-Hexanone (<i>n</i> -Butyl methyl ketone)	Solvent	77103	591-78-6	0.4	na	na
Isopropylbenzene (Cumene)	Gasoline hydrocarbon	77223	98-82-8	0.038	NL-CA	770
4-Isopropyl-1-methylbenzene	Gasoline hydrocarbon	77356	99-87-6	0.08	na	na
Methyl acrylate	Organic synthesis	49991	96-33-3	1.0	na	na
Methyl acrylonitrile	Organic synthesis	81593	126-98-7	0.40	na	na
Methyl bromide (Bromomethane)	Fumigant	34413	74-83-9	0.33	HAL-US	10
Methyl tert-butyl ether (MTBE)	Gasoline oxygenate	78032	1634-04-4	0.10	MCL-CA	13
Methyl iodide (Iodomethane)	Organic synthesis	77424	74-88-4	0.50	na	na
Methyl isobutyl ketone (MIBK)	Solvent	78133	108-10-1	0.37	NL-CA	120
Methyl methacrylate	Organic synthesis	81597	80-62-6	0.20	na	na
Methyl tert-pentyl ether (<i>tert</i> -Amyl methyl ether, TAME)	Gasoline oxygenate	50005	994-05-8	0.04	DLR	3
Naphthalene	Gasoline hydrocarbon	34696	91-20-3	0.52	NL-CA	17
<i>n</i> -Propylbenzene	Solvent	77224	103-65-1	0.042	NL-CA	260
Styrene	Gasoline hydrocarbon	77128	100-42-5	0.042	MCL-US	100
1,1,1,2-Tetrachloroethane	Solvent	77562	630-20-6	0.03	na	na
1,1,2,2-Tetrachloroethane	Solvent	34516	79-34-5	0.08	MCL-CA	1
Tetrachloroethene (PCE)	Solvent	34475	127-18-4	0.030	MCL-US	5
Tetrahydrofuran	Solvent	81607	109-99-9	1.2	na	na
1,2,3,4-Tetramethylbenzene	Gasoline hydrocarbon	49999	488-23-3	0.14	na	na
1,2,3,5-Tetramethylbenzene	Gasoline hydrocarbon	50000	527-53-7	0.18	na	na
Toluene	Gasoline hydrocarbon	34010	108-88-3	0.02	MCL-CA	150
1,2,3-Trichlorobenzene	Organic synthesis	77613	87-61-6	0.18	na	na
1,2,4-Trichlorobenzene	Solvent	34551	120-82-1	0.12	MCL-CA	5
1,1,1-Trichloroethane (TCA)	Solvent	34506	71-55-6	0.032	MCL-CA	200
1,1,2-Trichloroethane	Solvent	34511	79-00-5	0.04	MCL-CA	5
Trichloroethene (TCE)	Solvent	39180	79-01-6	0.038	MCL-US	5
Trichlorofluoromethane (CFC-11)	Refrigerant	34488	75-69-4	0.08	MCL-CA	150
1,2,3-Trichloropropane (1,2,3-TCP)	Solvent/organic synthesis	77443	96-18-4	0.18	NL-CA	0.005
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	Refrigerant	77652	76-13-1	0.038	MCL-CA	1,200
1,2,3-Trimethylbenzene	Gasoline hydrocarbon	77221	526-73-8	0.09	na	na
1,2,4-Trimethylbenzene	Gasoline hydrocarbon	77222	95-63-6	0.056	NL-CA	330
1,3,5-Trimethylbenzene	Organic synthesis	77226	108-67-8	0.044	NL-CA	330
Vinyl bromide (Bromoethene)	Fire retardant	50002	593-60-2	0.10	na	na
Vinyl chloride (Chloroethene)	Organic synthesis	39175	75-01-4	0.08	MCL-CA	0.5
<i>m</i> - and <i>p</i> -Xylene	Gasoline hydrocarbon	85795	108-38-3 / 106-42-3	0.06	MCL-CA	1,750
<i>o</i> -Xylene	Gasoline hydrocarbon	77135	95-47-6	0.038	MCL-CA	1,750

¹The MCL-US, and MCL-CA thresholds for trihalomethanes are the sum of chloroform, bromoform, bromodichloromethane, and dibromochloromethane.

²The RSD5 threshold for 1,3-dichloropropene is the sum of its isomers (*cis* and *trans*).