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# National Recommended Water Quality Criteria - Human Health Criteria Table

Human health ambient water quality criteria represent specific levels of chemicals or conditions in a water body that are not expected to cause adverse effects to human health. EPA provides recommendations for "water + organism" and "organism only" human health criteria for states and authorized tribes to consider when adopting criteria into their water quality standards. These human health criteria are developed by EPA under Section 304(a) of the Clean Water Act.

#### **Related Information**

- Human Health Criteria Calculation Matrix <a href="https://epa.gov/sites/default/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf">https://epa.gov/sites/default/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf</a>
- Human Health Criteria and Methods for Toxics <a href="https://epa.gov/wqc/human-health-water-quality-criteria-and-methods-toxics">https://epa.gov/wqc/human-health-water-quality-criteria-and-methods-toxics</a>
- Aquatic Life Criteria Table <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table">https://epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table</a>
- Organoleptic Effects Criteria Table <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects</a>
- Historical Water Quality Criteria Documents <a href="https://epa.gov/wqc/historical-water-quality-criteria-documents">https://epa.gov/wqc/historical-water-quality-criteria-documents</a>

#### Select pollutant name for current criteria document.

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Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes		
1,1,1-Trichloroethane <a href="https://epa.gov/sites/default/files/2015-10/documents/final-1-1-trichloroethane.pdf">https://epa.gov/sites/default/files/2015-10/documents/final-1-1-trichloroethane.pdf</a> (P)	71556	10,000	200,000	2015	EPA has issued a Maximum Contain this chemical which may be more EPA's National Primary Drinking W <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .	stringent. Refer to	

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
1,1,2,2-Tetrachloroethane <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0175">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0175</a> (P)	79345	0.2	3	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
1,1,2-Trichloroethane ☑ <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0156">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0156</a> (P)	79005	0.55	8.9	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
1,1-Dichloroethylene 🗹 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0204">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0204</a> (P)	75354	300	20,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
1,2,4,5-Tetrachlorobenzene 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0227">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0227</a>	95943	0.03	0.03	2015	

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
1,2,4-Trichlorobenzene (2) <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0205">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0205</a> (P)	120821	0.071	0.076	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).
1,2-Dichlorobenzene 🗹 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0206">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0206</a> (P)	95501	1,000	3,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
1,2-Dichloroethane <pre>https://www.regulations.gov/document/epa-hq-ow-2014-0135-0190&gt; (P)</pre>	107062	9.9	650	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
1,2-Dichloropropane [2] <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0157">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0157</a> (P)	78875	0.90	31	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
1,2-Diphenylhydrazine	122667	0.03	0.2	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
1,3-Dichlorobenzene 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0207">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0207</a> (P)	541731	7	10	2015	
1,3-Dichloropropene	542756	0.27	12	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
1,4-Dichlorobenzene 🗹 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0208">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0208</a> (P)	106467	300	900	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
2,3,7,8-TCDD (Dioxin) <a href="https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf">https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf</a> (P)	1746016	5.0E-9	5.1E-9	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  The CWA section 304(a) water quality criteria for dioxin is expressed in terms of 2,3,7,8-Tetrachloro-dibenzo-pdioxin (2,3,7,8-TCDD) and should be used in conjunction with the recommended toxicity equivalence factors for dioxin and dioxin-like compounds (USEPA, 2010 <a href="https://epa.gov/node/39781">https://epa.gov/node/39781</a> ) to account for the additive effects of other dioxin-like compounds.
2,4,5-Trichlorophenol	95954	300	600	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;</a> .

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2,4,6-Trichlorophenol	88062	1.5	2.8	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;.</a>
2,4-Dichlorophenol <a href="https://epa.gov/sites/default/files/2015-10/documents/final-2-4-dichlorophenol.pdf">https://epa.gov/sites/default/files/2015-10/documents/final-2-4-dichlorophenol.pdf</a> (P)	120832	10	60	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;.</a>
2,4-Dimethylphenol <a href="https://epa.gov/sites/default/files/2015-10/documents/final-2-4-dimethylphenol.pdf">https://epa.gov/sites/default/files/2015-10/documents/final-2-4-dimethylphenol.pdf</a> (P)	105679	100	3,000	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;.</a>
2,4-Dinitrophenol <a href="https://epa.gov/sites/default/files/2015-10/documents/final-2-4-dinitrophenol.pdf">2,4-Dinitrophenol.pdf</a> <a href="https://epa.gov/sites/default/files/2015-10/documents/final-2-4-dinitrophenol.pdf">4,4-Dinitrophenol.pdf</a> <a href="https://epa.gov/sites/default/files/2015-10/documents/final-2-4-dinitrophenol.pdf">4,4-Dinitrophenol.pdf</a>	51285	10	300	2015	

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
2,4-Dinitrotoluene	121142	0.049	1.7	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
2-Chloronaphthalene 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0209">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0209</a> (P)	91587	800	1,000	2015	
2-Chlorophenol	95578	30	800	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;.</a>
2-Methyl-4,6-Dinitrophenol <a href="https://epa.gov/sites/default/files/2015-10/documents/final-2-methyl-4-6-dinitrophenol.pdf">https://epa.gov/sites/default/files/2015-10/documents/final-2-methyl-4-6-dinitrophenol.pdf</a> (P)	534521	2	30	2015	
3,3'-Dichlorobenzidine Z <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0161">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0161</a> (P)	91941	0.049	0.15	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

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3-Methyl-4-Chlorophenol <a href="https://epa.gov/sites/default/files/2015-10/documents/final-3-methyl-4-chlorophenol.pdf">https://epa.gov/sites/default/files/2015-10/documents/final-3-methyl-4-chlorophenol.pdf</a> (P)	59507	500	2,000	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;.</a>
Acenaphthene C <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0234">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0234</a> (P)	83329	70	90	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;.</a>
Acrolein 🗷 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0211">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0211</a> (P)	107028	3	400	2015	
Acrylonitrile	107131	0.061	7.0	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Aldrin 🖸 <https: document="" epa-hq-ow-2014-0135-0163="" www.regulations.gov=""> (P)</https:>	309002	0.00000077	0.00000077	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
alpha-Endosulfan 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0235">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0235</a> (P)	959988	20	30	2015	

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alpha-Hexachlorocyclohexane (HCH) <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0164">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0164</a> (P)	319846	0.00036	0.00039	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Anthracene C <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0236">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0236</a> (P)	120127	300	400	2015	
Antimony <a href="https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf">https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf</a> (P)	7440360	5.6	640	1980	This criterion was revised to reflect EPA's q1* or RfD as contained in the Integrated Risk Information System (IRIS) <a href="https://epa.gov/iris">https://epa.gov/iris</a> as of May 17, 2002. The fish tissue bioconcentration factor (BCF) is from the 1980 Ambient Water Quality Criteria document.  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

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Arsenic <a href="https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf">https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf</a> (P)	7440382	0.018	0.14	1992	This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This recommended water quality criterion for arsenic refers to the inorganic form only.
Asbestos <a href="https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf">https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf</a> (P)	1332214	7 million fibers/L	_	1991	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

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Barium <a href="https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf">https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf</a>	7440393	1,000		1986	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This human health criterion is the same as originally published in the Quality Criteria for Water, 1976 ("Red Book") <a href="https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1976.pdf">https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1976.pdf</a> which predates the 1980 methodology and did not utilize the fish ingestion BCF approach. This same criterion value is published in the Quality Criteria for Water, 1986 ("Gold Book") <a href="https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf">https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf</a> .
Benzene	71432	0.58-2.1	16-58	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

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Benzidine	92875	0.00014	0.011	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Benzo(a)anthracene 🗹 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0176">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0176</a> (P)	56553	0.0012	0.0013	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Benzo(a)pyrene	50328	0.00012	0.00013	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Benzo(b)fluoranthene 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0178">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0178</a> (P)	205992	0.0012	0.0013	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

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Benzo(k)fluoranthene 🗹 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0179">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0179</a> (P)	207089	0.012	0.013	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Beryllium <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-beryllium.pdf">Beryllium <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-beryllium.pdf">Beryllium <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-beryllium.pdf">Beryllium <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-beryllium.pdf">Beryllium <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-beryllium.pdf">Beryllium <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-beryllium.pdf">Beryllium.pdf</a> (P)</a></a></a></a></a>	7440417	_	_	_	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
beta-Endosulfan 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0237">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0237</a> (P)	33213659	20	40	2015	
beta-Hexachlorocyclohexane (HCH)	319857	0.0080	0.014	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Bis(2-Chloro-1-methylethyl) Ether <a href="#">C</a> <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0212">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0212</a> (P)	108601	200	4,000	2015	
Bis(2-Chloroethyl) Ether 🗹 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0180">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0180</a> (P)	111444	0.030	2.2	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Bis(2-Ethylhexyl) Phthalate [2] <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0168">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0168</a> (P)	117817	0.32	0.37	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Bis(Chloromethyl) Ether <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0181">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0181</a>	542881	0.00015	0.017	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Bromoform	75252	7.0	120	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Butylbenzyl Phthalate 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0213">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0213</a> (P)	85687	0.10	0.10	2015	This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).
Cadmium <a href="https://epa.gov/sites/default/files/2019-03/documents/ambient-wqc-cadmium-2001.pdf">https://epa.gov/sites/default/files/2019-03/documents/ambient-wqc-cadmium-2001.pdf</a> (P)	7440439	_	_	_	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Carbon Tetrachloride <a href="#">Carbon Tetrachloride</a> <a href="#">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0182"&gt;https://www.regulations.gov/document/epa-hq-ow-2014-0135-0182</a> (P)	56235	0.4	5	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Chlordane ☑ <https: 0135-0183="" document="" epa-hq-ow-2014-="" www.regulations.gov=""> (P)</https:>	57749	0.00031	0.00032	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).
Chlorobenzene ☑ <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0214">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0214</a> (P)	108907	100	800	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects</a> .  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Chlorodibromomethane ☑ <https: 0135-0193="" document="" epa-hq-ow-2014-="" www.regulations.gov=""> (P)</https:>	124481	0.80	21	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .  This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Chloroform ☑ <https: 0135-0215="" document="" epa-hq-ow-2014-="" www.regulations.gov=""> (P)</https:>	67663	60	2,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Chlorophenoxy Herbicide (2,4,5-TP) [Silvex]	93721	100	400	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Chlorophenoxy Herbicide (2,4-D) [2] <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0238">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0238&gt;</a>	94757	1,300	12,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Chromium (III) <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-chromium.pdf">https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-chromium.pdf</a> (P)	16065831	Total	_	_	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Chromium (VI) <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-chromium.pdf">https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-chromium.pdf</a> (P)	18540299	Total	_	_	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Chrysene ☑ <https: 0135-0184="" document="" epa-hq-ow-2014-="" www.regulations.gov=""> (P)</https:>	218019	0.12	0.13	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Copper <a href="https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf">https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf</a> (P)	7440508	1,300	_	1992	This chemical has a criterion for organoleptic (taste and odor) effects. In some cases, the organoleptic criterion may be more stringent.  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Cyanide 🗹 <a href="https://www.regulations.gov/document/epahq-ow-2014-0135-0239">https://www.regulations.gov/document/epahq-ow-2014-0135-0239</a> (P)	57125	4	400	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Cylindrospermopsin <a href="https://epa.gov/system/files/documents/2021-08/final-tsd-implement-2019-rwqc.pdf.pdf">https://epa.gov/system/files/documents/2021-08/final-tsd-implement-2019-rwqc.pdf.pdf</a>	143545-90-8	_	_	2019	The national recommended human health recreational criterion or swimming advisory for cylindrospermopsin is 15 µg/L. When applied as a Clean Water Act section 304(a) water quality criterion, EPA recommends no more than 3 excursions (10-day assessment periods) within a recreational season in more than one year. When used as a swimming advisory, EPA recommends the value not be exceeded on any single day.
Di-n-Butyl Phthalate ☑ <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0242">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0242</a> (P)	84742	20	30	2015	
Dibenzo(a,h)anthracene <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0185">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0185</a> (P)	53703	0.00012	0.00013	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Dichlorobromomethane ☑ <https: 0135-0195="" document="" epa-hq-ow-2014-="" www.regulations.gov=""> (P)</https:>	75274	0.95	27	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Dieldrin ☑ <https: document="" epa-<br="" www.regulations.gov="">hq-ow-2014-0135-0171&gt; (P)</https:>	60571	0.0000012	0.0000012	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Diethyl Phthalate ☑ <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0240">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0240</a> (P)	84662	600	600	2015	

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Dimethyl Phthalate ☑ <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0241">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0241</a> (P)	131113	2,000	2,000	2015	The 2015 Update of Human Health Ambient Water Quality Criteria for Dimethyl Phthalate and 1980 Ambient Water Quality Criteria for Phthalate Esters incorrectly cite a study by Draize et al. (1948) as the critical study used to derive a reference dose for dimethyl phthalate. The correct citation for the two-year feeding study in female rats is Lehman, 1955 (Lehman, AJ. 1955. Insect repellants. Association of Food and Drug Officials of the United States Quarterly Bulletin 19:87-99).
Dinitrophenols	25550587	10	1,000	2015	
Endosulfan Sulfate 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0243">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0243</a> (P)	1031078	20	40	2015	
Endrin Aldehyde 🖸 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0219">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0219</a> (P)	7421934	1	1	2015	
Endrin 🗹 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0218">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0218</a> (P)	72208	0.03	0.03	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

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Ethylbenzene <b>C</b> <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0244">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0244</a> (P)	100414	68	130	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Fluoranthene	206440	20	20	2015	
Fluorene	86737	50	70	2015	
gamma-Hexachlorocyclohexane (HCH) [Lindane]	58899	4.2	4.4	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Heptachlor Epoxide <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0197">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0197</a> (P)	1024573	0.000032	0.000032	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Heptachlor <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0196">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0196</a> (P)	76448	0.0000059	0.0000059	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Hexachlorobenzene	118741	0.000079	0.000079	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Hexachlorobutadiene [2] <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0199">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0199</a> (P)	87683	0.01	0.01	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Hexachlorocyclohexane (HCH) -Technical 🗹 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0172">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0172&gt;</a>	608731	0.0066	0.010	2015	This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).
Hexachlorocyclopentadiene	77474	4	4	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects</a> .  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Hexachloroethane	67721	0.1	0.1	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Indeno(1,2,3-cd)pyrene <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0187">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0187</a> (P)	193395	0.0012	0.0013	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Isophorone	78591	34	1,800	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Manganese <a href="https://epa.gov/sites/default/files/2018-12/documents/dw-criteria-manganese.pdf">https://epa.gov/sites/default/files/2018-12/documents/dw-criteria-manganese.pdf</a>	7439965	50	100	1993	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects</a> .  The Human Health for the consumption of Water + Organism criterion for manganese is not based on toxic effects, but rather is intended to minimize objectionable qualities such as laundry stains and objectionable tastes in beverages.
Methoxychlor <a href="#">Methoxychlor</a> <a href="#">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0223&gt;</a>	72435	0.02	0.02	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Methyl Bromide [2] <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0224">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0224</a> (P)	74839	100	10,000	2015	

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Methylene Chloride <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0200">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0200</a> (P)	75092	20	1,000	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Methylmercury <a href="https://epa.gov/wqc/human-health-criteria-methylmercury">https://epa.gov/wqc/human-health-criteria-methylmercury</a> (P)	22967926	_	0.3 mg/kg	2001	This fish tissue residue criterion for methylmercury is based on a total fish consumption rate of 0.0175 kg/day.
Microcystins <a href="https://epa.gov/sites/default/files/2019-05/documents/hh-rec-criteria-habs-document-2019.pdf">https://epa.gov/sites/default/files/2019-05/documents/hh-rec-criteria-habs-document-2019.pdf</a>	101043-37-2	_	_	2019	The national recommended human health recreational criterion or swimming advisory for microcystins is 8 µg/L. When applied as a Clean Water Act section 304(a) water quality criterion, EPA recommends no more than 3 excursions (10-day assessment periods) within a recreational season in more than one year. When used as a swimming advisory, EPA recommends the value not be exceeded on any single day.
N-Nitrosodi-n-Propylamine (P)	621647	0.0050	0.51	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
N-Nitrosodimethylamine <https: 12="" 2018-="" documents="" epa.gov="" files="" hh-criteria-calculation-matrix-2002.pdf="" production="" sites=""> (P)</https:>	62759	0.00069	3.0	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
N-Nitrosodiphenylamine (P)	86306	3.3	6.0	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Nickel <a href="https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf">https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf</a> (P)	7440020	610	4,600	1998	This criterion was revised to reflect EPA's q1* or RfD as contained in the Integrated Risk Information System (IRIS) <a href="https://epa.gov/iris">https://epa.gov/iris</a> as of May 17, 2002. The fish tissue bioconcentration factor (BCF) is from the 1980 Ambient Water Quality Criteria document.
Nitrates <a href="https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf">Nitrates <a dwreginfo"="" epa.gov="" href="https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf&lt;/a&gt;&lt;/td&gt;&lt;td&gt;14797558&lt;/td&gt;&lt;td&gt;10,000&lt;/td&gt;&lt;td&gt;_&lt;/td&gt;&lt;td&gt;1986&lt;/td&gt;&lt;td&gt;EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations &lt;a href=" https:="">https://epa.gov/dwreginfo</a>.</a></a></a></a></a></a></a></a>					
Nitrobenzene	98953	10	600	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;</a> .

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (μg/L)	Publication Year	Notes
Nitrosamines <a href="https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-nitrosamines.pdf">https://epa.gov/sites/default/files/2018-12/documents/ambient-wqc-nitrosamines.pdf</a>	_	0.0008	1.24	1980	This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).
Nitrosodibutylamine <https: 12="" 2018-="" documents="" epa.gov="" files="" hh-criteria-calculation-matrix-2002.pdf="" production="" sites=""></https:>	924163	0.0063	0.22	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Nitrosodiethylamine <https: 12="" 2018-="" documents="" epa.gov="" files="" hh-criteria-calculation-matrix-2002.pdf="" production="" sites=""></https:>	55185	0.0008	1.24	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
Nitrosopyrrolidine <https: 12="" 2018-="" documents="" epa.gov="" files="" hh-criteria-calculation-matrix-2002.pdf="" production="" sites=""></https:>	930552	0.016	34	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Nutrients	_	_	_		Refer to EPA's criteria for nutrients in lakes and reservoirs <a href="https://epa.gov/nutrient-policy-data/ambient-water-quality-criteria-address-nutrient-pollution-lakes-and-reservoirs">https://epa.gov/nutrient-pollution-lakes-and-reservoirs</a> , which are linked to the national recommendations for human health recreational water quality criteria and swimming advisory <a href="https://epa.gov/sites/default/files/2019-05/documents/hhrec-criteria-habs-document-2019.pdf">https://epa.gov/sites/default/files/2019-05/documents/hhrec-criteria-habs-document-2019.pdf</a> and the health advisory for microcystins. <a href="https://epa.gov/sites/default/files/2017-06/documents/microcystins-report-2015.pdf">https://epa.gov/sites/default/files/2017-06/documents/microcystins-report-2015.pdf</a>
p,p'-Dichlorodiphenyldichloroethane (DDD) <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0169">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0169</a> (P)	72548	0.00012	0.00012	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
p,p'-Dichlorodiphenyldichloroethylene (DDE)	72559	0.000018	0.000018	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
p,p'-Dichlorodiphenyltrichloroethane (DDT) <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0170">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0170</a> (P)	50293	0.000030	0.000030	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Pathogen and Pathogen Indicators <a href="https://epa.gov/wqc/recreational-water-quality-criteria-and-methods">https://epa.gov/wqc/recreational-water-quality-criteria-and-methods</a>	_	_	_	2012	Refer to EPA's 2012 Recreational Water Quality Criteria <a href="https://epa.gov/wqc/recreational-water-quality-criteria-and-methods">https://epa.gov/wqc/recreational-water-quality-criteria-and-methods</a> For Shellfish refer to Quality Criteria for Water 1986  ("Gold Book") <a href="https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf">https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf</a>
Pentachlorobenzene	608935	0.1	0.1	2015	
Pentachlorophenol (2) <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0201">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0201</a> (P)	87865	0.03	0.04	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects</a> .  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
рН	_	5 – 9	_	1986	

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (μg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Phenol <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0247">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0247</a> (P)	108952	4,000	300,000	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;.</a>
Polychlorinated Biphenyls (PCBs) (P)		0.000064	0.000064	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  This criterion applies to total PCBs (e.g., the sum of all congener or all isomer or homolog or Aroclor analyses).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo"></a> .
Pyrene <a> <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0248">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0248</a> (P)</a>	129000	20	30	2015	
Selenium <a href="https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf">https://epa.gov/sites/production/files/2018-12/documents/hh-criteria-calculation-matrix-2002.pdf</a> (P)	7782492	170	4200	2002	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Solids Dissolved and Salinity <a href="https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf">https://epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf</a>	_	250,000	_	1986	
Tetrachloroethylene ☑ <https: 0135-0189="" document="" epa-hq-ow-2014-="" www.regulations.gov=""> (P)</https:>	127184	10	29	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Thallium (2) <a href="https://www.federalregister.gov/documents/2003/12/31/03-32211/national-recommended-water-quality-criteria-for-the-protection-of-human-health">https://www.federalregister.gov/documents/2003/12/31/03-32211/national-recommended-water-quality-criteria-for-the-protection-of-human-health</a> (P)	7440280	0.24	0.47	2003	
Toluene ☑ <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0226">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0226</a> (P)	108883	57	520	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

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Toxaphene ☑ <https: 0135-0202="" document="" epa-hq-ow-2014-="" www.regulations.gov=""> (P)</https:>	8001352	0.00070	0.00071	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Trans-1,2-Dichloroethylene ☑ <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0249">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0249</a> (P)	156605	100	4,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Trichloroethylene ☑ <https: 0135-0173="" document="" epa-hq-ow-2014-="" www.regulations.gov=""> (P)</https:>	79016	0.6	7	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
Vinyl Chloride 🔼 <a href="https://www.regulations.gov/document/epa-hq-ow-2014-0135-0174">https://www.regulations.gov/document/epa-hq-ow-2014-0135-0174</a> (P)	75014	0.022	1.6	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk.  Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to EPA's National Primary Drinking Water Regulations <a href="https://epa.gov/dwreginfo">https://epa.gov/dwreginfo</a> .
Zinc (P)	7440666	7,400	26,000	2002	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to National Recommended Water Quality Criteria - Organoleptic Effects <a href="https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects">https://epa.gov/wqc/national-recommended-water-quality-criteria-organoleptic-effects&gt;.</a>

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Previous

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