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| | Aquatic Life* (µg/l) | | | | Human Health* (µg/l) | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Acenaphthene | I | 38 | 19 | 15 | 1,200 | 2,700 |
| Acenaphthylene | | ID | ID | ID | | |
| Acetonitrile (Methyl cyanide) | II | 210,000 | 100,000 | 12,000 | | |
| Acetophenone | | ID | ID | ID | | |
| Acrolein | | | | | 320 | 780 |
| Acrylonitrile | II | 1,300 | 650 | 78 | 0.59[c] | 6.6[c] |
| Alachlor | | | | | 2.0[a] | |
| Aldicarb[1] | | | | | 7.0[a] | |
| Aldicarb sulfone | | | | | See Aldicarb | |
| Aldicarb sulfoxide | | | | | See Aldicarb | |
| Aldrin | | | | | 0.0013[c] | 0.0014[c] |
| 2-Amino-4,6-dinitrotoluene | II | 320 | 160 | 18 | | |
| 4-Amino-2,6-dinitrotoluene | II | 200 | 98 | 11 | | |
| Ammonia | I | | Table 35-1 | | | |
| Aniline | I,I,II | 59 | 30 | 4.1 | | |
| Anthracene | II | 0.35 | 0.18 | 0.020 | 9,600 | 110,000 |
| Antimony | II | 1,800 | 900 | 190 | 6.0[a] | 4,300 |
| Arsenic - Diss | I | 680 | 340 | 150 | NA | |
| Arsenic - TR | I | 680 | 340 | 150 | 10[a] | |
| Asbestos (fibers/liter) | | | | | 7,000,000[a] | |
| Atrazine | | | | | 3.0[a] | |
| Barium | I,I,II | [i] | [i] | [i] | 2,000[a] | |
| Benzene | II | 1,400 | 700 | 160 | 5.0[a,c] | 710[c] |

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| | Aquatic Life* (µg/l) | | | | Human Health* (µg/l) | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Benzidine | | | | | 0.0012[c] | 0.0054[c] |
| Benzo(a)anthracene | | ID | ID | ID | 0.044[c] | 0.49[c] |
| Benzo(a)pyrene | | ID | ID | ID | 0.044[c] | 0.49[c] |
| Benzo(b)fluoranthene | | ID | ID | ID | 0.044[c] | 0.49[c] |
| Benzo(g,h,i,)perylene | | ID | ID | ID | | |
| Benzo(k)fluoranthene | | ID | ID | ID | 0.044[c] | 0.49[c] |
| Beryllium | II | [g] | [g] | [g] | 4.0[a] | 280 |
| Biphenyl | II | 51 | 26 | 6.5 | | |
| Bis(2-chloroethyl)ether | | | | | 0.31[c] | 14[c] |
| Bis(2-chloroisopropyl)ether | | | | | 1,400 | 170,000 |
| Bis(2-chloromethyl)ether | | | | | 0.0013[c] | 0.0078[c] |
| Bis(2-ethylhexyl)phthalate | II | 2,100 | 1,100 | 8.4 | 6.0[a,c] | 59[c] |
| Bismuth | | ID | ID | ID | | |
| Boron | I,I,II | 65,000 | 33,000 | 3,900 | | |
| Bromate | | | | | 10[a] | |
| Bromine | II | 4.8 | 2.4 | 0.26 | | |
| Bromochloromethane | | ID | ID | ID | | |
| Bromodichloromethane | | ID | ID | ID | 5.6[c] | 460[c] |
| 3-Bromofluorobenzene | | ID | ID | ID | | |
| 4-Bromofluorobenzene | | ID | ID | ID | | |
| Bromoform (Tribromomethane) | II | 2,200 | 1,100 | 230 | 43[c] | 3,600[c] |
| Bromomethane | See Methyl bromide | | | | | |
| 1,3-Butadiene | | ID | ID | ID | | |

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| | Aquatic Life* (µg/l) | | | | Human Health* (µg/l) | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| 2-Butanone (Methyl ethyl ketone) | II | 400,000 | 200,000 | 22,000 | | |
| n-Butylbenzene | | ID | ID | ID | | |
| sec-Butylbenzene | | ID | ID | ID | | |
| tert-Butylbenzene | | ID | ID | ID | | |
| Butylbenzyl phthalate | II | 260 | 130 | 23 | 3,000 | 5,200 |
| Cadmium - Diss | I | Table 35-9 | | | NA | |
| Cadmium - TR | I | Table 35-9 | | | 5.0[a] | |
| Carbofuran | | | | | 40[a] | |
| Carbon disulfide | II | 260 | 130 | 15 | | |
| Carbon tetrachloride | II | 4,400 | 2,200 | 240 | 2.5[c] | 44[c] |
| Chloramine | | | | | 4,000[a] | |
| Chlordane | | | | | 0.021[c] | 0.022[c] |
| Chlorides | | | | | 250,000[a] | |
| Chlorine (wwh,ewh, mwh,cwh) - TRes | I | 38 | 19 | 11 | 4,000[a] | |
| Chlorine (lrw) - TRes | I | 38 | 19 | NA | 4,000[a] | |
| Chlorine (ssh) - TRes | I | [b] | [b] | [b] | 4,000[a] | |
| Chlorine dioxide | | | | | 800[a] | |
| Chlorite | | | | | 1,000[a] | |
| Chloroacetic acid[2] | | | | | 60[a] | |
| Chlorobenzene | II | 850 | 420 | 47 | 100[a] | 21,000 |
| Chlorodibromomethane | See Dibromochloromethane | | | | | |
| Chlorodibromopropane | See 1,2-Dibromo-3-chloropropane | | | | | |

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| | **Aquatic Life* (µg/l)** | | | | **Human Health* (µg/l)** | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Chloroform (Trichloromethane) | II | 2,600 | 1,300 | 140 | 57[c] | 4,700[c] |
| 2-Chloronaphthalene | | | | | 1,700 | 4,300 |
| 2-Chlorophenol | II | 580 | 290 | 32 | 0.1[f] | 400 |
| Chromium - Diss | I | Table 35-9 | | | NA | |
| Chromium - TR | I | Table 35-9 | | | 100[a] | |
| Chromium VI - Diss | I | 31 | 16 | 11 | | |
| Chrysene | | ID | ID | ID | 0.044[c] | 0.49[c] |
| Cobalt | II | 440 | 220 | 24 | | |
| Copper - Diss | I | Table 35-9 | | | NA | |
| Copper - TR | I | Table 35-9 | | | | 1,300 |
| Cyanide - amenable to chlorination | See Cyanide - free | | | | | |
| Cyanide - free (wwh,ewh,mwh) | I | 92 | 46 | 12 | 200[a] | 220,000 |
| Cyanide - free (lwh) | I | 92 | 46 | NA | 200[a] | 220,000 |
| Cyanide - free (ssh,cwh) | I | 45 | 22 | 5.2 | 200[a] | 220,000 |
| 2,4-D (2,4-Dichlorophen-oxyacetic acid) | | | | | 70[a] | |
| Dalapon | | | | | 200[a] | |
| 4,4'-DDD | | | | | 0.0083[c] | 0.0084[c] |
| 4,4'-DDE | | | | | 0.0059[c] | 0.0059[c] |
| 4,4'-DDT | | | | | 0.0059[c] | 0.0059[c] |
| Dibenz(a,h)anthracene | | ID | ID | ID | 0.044[c] | 0.49[c] |
| Dibenzofuran | II | 71 | 36 | 4.0 | | |

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| | Aquatic Life* (µg/l) | | | | Human Health* (µg/l) | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Dibromochloromethane | | ID | ID | ID | 4.1[c] | 340[c] |
| 1,2-Dibromo-3-chloropropane | | ID | ID | ID | 0.2[a] | |
| 1,2-Dibromoethane | See Ethylene dibromide | | | | | |
| Di-n-butyl phthalate | | | | | 2,700 | 12,000 |
| Dichloroacetic acid[2] | | | | | 60[a] | |
| 1,2-Dichlorobenzene | II | 260 | 130 | 23 | 600[a] | 17,000 |
| 1,3-Dichlorobenzene | II | 160 | 79 | 22 | 400 | 2,600 |
| 1,4-Dichlorobenzene | II | 110 | 57 | 9.4 | 75[a] | 2,600 |
| 3,3'-Dichlorobenzidine | | | | | 0.40[c] | 0.77[c] |
| Dichlorobromomethane | See Bromodichloromethane | | | | | |
| Dichlorodifluoromethane | | ID | ID | ID | | |
| 1,1-Dichloroethane | | ID | ID | ID | | |
| 1,2-Dichloroethane | II | 19,000 | 9,600 | 2,000 | 3.8[c] | 990[c] |
| 1,1-Dichloroethylene | II | 3,800 | 1,900 | 210 | 0.57[c] | 32[c] |
| 1,2-Dichloroethylene[3] | II | 18,000 | 8,800 | 970 | See criteria for individual chemicals | |
| cis-1,2-Dichloroethylene | | See 1,2-Dichloroethylene | | | 70[a] | |
| trans-1,2-Dichloroethylene | | See 1,2-Dichloroethylene | | | 100[a] | 140,000 |
| Dichloromethane | See Methylene chloride | | | | | |
| 2,4-Dichlorophenol | II | 210 | 110 | 11 | 0.3[f] | 790 |
| 1,2-Dichloropropane | II | 6,500 | 3,300 | 520 | 5.0[a,c] | 390[c] |
| 1,3-Dichloropropene | II | 30 | 15 | 1.7 | 10 | 1,700 |
| Dieldrin | I | 0.47 | 0.24 | 0.056 | 0.0014[c] | 0.0014[c] |
| Di(2-ethylhexyl)adipate | | | | | 400[a] | |

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| | **Aquatic Life* (µg/l)** | | | | **Human Health* (µg/l)** | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Diethyl phthalate | II | 2,000 | 980 | 220 | 23,000 | 120,000 |
| Difluorodichloromethane | See Dichlorodifluoromethane | | | | | |
| 2,4-Dimethylphenol | II | 280 | 140 | 15 | 540 | 2,300 |
| Dimethyl phthalate | II | 6,400 | 3,200 | 1,100 | 310,000 | 2,900,000 |
| 3,5-Dinitroaniline | II | 430 | 210 | 70 | | |
| 1,3-Dinitrobenzene | II | 210 | 100 | 22 | | |
| 4,6-Dinitro-o-cresol (4,6-Dinitro-2-methylphenol) | | | | | 13 | 770 |
| Dinitrophenols[4] | | | | | 70 | 14,000 |
| 2,3-Dinitrotoluene | II | 41 | 21 | 2.3 | | |
| 2,4-Dinitrotoluene | II | 790 | 390 | 44 | 1.1[c] | 91[c] |
| 2,5-Dinitrotoluene | II | 100 | 50 | 5.6 | | |
| 2,6-Dinitrotoluene | II | 1,500 | 730 | 81 | | |
| 3,5-Dinitrotoluene | II | 1,700 | 860 | 95 | | |
| Dinoseb | | | | | 7.0[a] | |
| 1,4-Dioxane | | ID | ID | ID | 32[c] | 3,600[c] |
| 1,2-Diphenylhydrazine | | | | | 0.40[c] | 5.4[c] |
| Diquat | | | | | 20[a] | |
| Dissolved oxygen | I | | Table 35-1 | | | |
| Dissolved solids | I | ID | ID | 1,500,000[d] | 750,000[a,e] max. 500,000[a,e] ave. | |
| Endosulfan[5] | | | | | 110 | 240 |
| alpha-Endosulfan | | | | | See Endosulfan | |
| beta-Endosulfan | | | | | See Endosulfan | |
| Endosulfan sulfate | | | | | See Endosulfan | |

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| | Aquatic Life* (µg/l) | | | | Human Health* (µg/l) | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Endothall | | | | | 100[a] | |
| Endrin[6] | I | 0.17 | 0.086 | 0.036 | 0.76 | 0.81 |
| Endrin aldehyde | | | | | See Endrin | |
| Ethylbenzene | II | 1,100 | 550 | 61 | 700[a] | 29,000 |
| Ethylene dibromide (EDB) (1,2-Dibromoethane) | | ID | ID | ID | 0.050[a] | |
| Ethylene glycol | II | 2,600,000 | 1,300,000 | 140,000 | | |
| Fluoranthene | II | 7.4 | 3.7 | 0.80 | 300 | 370 |
| Fluorene | I,I,II | 220 | 110 | 19 | 1,300 | 14,000 |
| Fluoride | | | | | 4,000[a] | |
| Fluorobenzene | | ID | ID | ID | | |
| 2-Fluorobiphenyl | | ID | ID | ID | | |
| 2-Fluorophenol | | ID | ID | ID | | |
| Glyphosate | | | | | 700[a] | |
| Halomethanes | See criteria for individual chemicals | | | | | |
| Heptachlor | | | | | 0.0021[c] | 0.0021[c] |
| Heptachlor epoxide | | | | | 0.0010[c] | 0.0011[c] |
| Hexachlorobenzene | | | | | 0.0075[c] | 0.0077[c] |
| Hexachlorobutadiene | | | | | 4.4[c] | 500[c] |
| alpha-Hexachlorocyclohexane | | | | | 0.039[c] | 0.13[c] |
| beta-Hexachlorocyclohexane | | | | | 0.14[c] | 0.46[c] |
| gamma-Hexachloro-cyclohexane (Lindane) | I,I,II | 1.9 | 0.95 | 0.057 | 0.19[c] | 0.63[c] |

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| | Aquatic Life* (µg/l) | | | | Human Health* (µg/l) | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Hexachlorocyclohexane (technical grade) | | | | | 0.12[c] | 0.41[c] |
| Hexachlorocyclopentadiene | | | | | 50[a] | 17,000 |
| Hexachloroethane | | | | | 19[c] | 89[c] |
| HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine) | II | 2,500 | 1,200 | 220 | | |
| Indeno(1,2,3-c,d)pyrene | | ID | ID | ID | 0.044[c] | 0.49[c] |
| Iron - Soluble | | | | | 300[a] | |
| Isophorone | II | 15,000 | 7,500 | 920 | 360[c] | 26,000[c] |
| Isopropylbenzene | II | 86 | 43 | 4.8 | | |
| 4-Isopropyltoluene | II | 300 | 150 | 16 | | |
| Lead - Diss | I | Table 35-9 | | | NA | |
| Lead - TR | I | Table 35-9 | | | ID | ID |
| Lindane | See gamma-Hexachlorocyclohexane | | | | | |
| Magnesium | | Not available | | | | |
| Manganese | | | | | | |
| MBAS (foaming agents) | I | | 500[f] | | | |
| Mercury - Diss | I | 2.9 | 1.4 | 0.77 | NA | |
| Mercury - TR | I | 3.4 | 1.7 | 0.91 | 0.012 | 0.012 |
| Methoxychlor | | | | | 40[a] | |
| Methyl bromide (Bromomethane) | II | 75 | 38 | 16 | 48 | 4,000 |
| Methyl cyanide | See Acetonitrile | | | | | |
| Methyl ethyl ketone | See 2-Butanone | | | | | |
| 4-Methyl-2-pentanone | | ID | ID | ID | | |

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|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Methylene chloride (Dichloromethane) | II | 22,000 | 11,000 | 1,900 | 5.0[c] | 16,000[c] |
| 2-Methylphenol | II | 1,200 | 600 | 67 | | |
| 3-Methylphenol | II | 1,100 | 560 | 62 | | |
| 4-Methylphenol | II | 960 | 480 | 53 | | |
| Methyl tert-butyl ether | II | 13,000 | 6,500 | 730 | | |
| Mirex | | | | | 0.00011[c] | 0.00011[c] |
| Molybdenum | II | 370,000 | 190,000 | 20,000 | | |
| Naphthalene | II | 340 | 170 | 21 | | |
| Nickel - Diss | I | Table 35-9 | | | NA | |
| Nickel - TR | I | Table 35-9 | | | 610 | 4,600 |
| Nitrate-N + Nitrite-N | | | | | 10,000[a] | |
| Nitrite-N | | | | | 1,000[a] | |
| Nitrobenzene | II | 4,000 | 2,000 | 380 | 17 | 1,900 |
| Nitrocelluose | | ID | ID | ID | | |
| Nitroglycerine | II | 320 | 160 | 18 | | |
| Nitroguanidine | | ID | ID | ID | | |
| 2-Nitrophenol | II | 1,300 | 650 | 73 | | |
| Nitrosoamines[7] | | | | | 0.0080[c] | 12[c] |
| N-Nitrosodibutylamine | | | | | 0.064[c] | 5.9[c] |
| N-Nitrosodiethylamine | | | | | 0.0080[c] | 12[c] |
| N-Nitrosodimethylamine | | | | | 0.0069[c] | 81[c] |
| N-Nitrosodi-n-propylamine | | | | | 0.050[c] | 14[c] |
| N-Nitrosodiphenylamine | | | | | 50[c] | 160[c] |
| N-Nitrosodipyrrolidine | | | | | 0.16[c] | 920[c] |

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| | **Aquatic Life* (µg/l)** | | | | **Human Health* (µg/l)** | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| 2-Nitrotoluene | II | 1,300 | 640 | 71 | | |
| 3-Nitrotoluene | II | 760 | 380 | 42 | | |
| 4-Nitrotoluene | II | 820 | 410 | 46 | | |
| Oil & grease | I | | 10,000[f] | | | |
| Oxamyl (Vydate) | | | | | 200[a] | |
| Parathion | I | 0.13 | 0.065 | 0.013 | | |
| Pentachlorobenzene | | | | | 3.5 | 4.1 |
| Pentachlorophenol | I | Table 35-10 | | | 1.0[a,c] | 82[c] |
| Peracetic acid | II | 330 | 160 | | | |
| Perchlorate | I | 40,000 | 20,000 | 10,000 | 4.9 | 9,300 |
| pH | I | | | Table 35-1 | | |
| Phenanthrene | II | 61 | 31 | 2.3 | | |
| Phenol (wwh,ewh,mwh) | I,I,II | 9,400 | 4,700 | 400 | 1.0[f] | 4,600,000 |
| Phenol (lrw) | I,I,II | 9,400 | 4,700 | NA | 1.0[f] | 4,600,000 |
| Phenol (cwh,ssh) | I,I,II | 9,100 | 4,600 | 160 | 1.0[f] | 4,600,000 |
| Phenolics | See criteria for individual chemicals | | | | | |
| Phosphate | See Phosphorus | | | | | |
| Phosphorus | I | Table 37-1 | ID | ID | Table 37-1 | |
| Picloram | | | | | 500[a] | |
| Polychlorinated biphenyls (PCBs)[10] | | | | | 0.0017[c] | 0.0017[c] |
| Polynuclear aromatic hydrocarbons (PAHs) | See criteria for individual chemicals | | | | | |
| n-Propyl benzene | | ID | ID | ID | | |
| Propylene glycol | II | 1,300,000 | 640,000 | 71,000 | | |

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|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Pyrene | II | 83 | 42 | 4.6 | 960 | 11,000 |
| RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine) | II | 1,000 | 520 | 79 | | |
| SAS-310 | II | 10 | 5.0 | 0.61 | | |
| Selenium - Diss | I | | | 4.6 | NA | |
| Selenium - TR | I | | | 5.0 | 50[a] | 11,000 |
| Silver - Diss | I | [h] | | ID | NA | |
| Silver (wwh,ewh,mwh)-TR | I | [h] | | 1.3 | 50 | |
| Silver (lrw) - TR | I | [h] | | NA | 50 | |
| Silver (ssh, cwh) - TR | I | [h] | | 0.06 | 50 | |
| Silvex (2,4,5-TP; 2-[2,4,5-Trichlorophenoxy]propionic acid) | | | | | 10 | |
| Simazine | | | | | 4.0[a] | |
| Strontium | I,I,II | [j] | [j] | [j] | | |
| Styrene | II | 570 | 290 | 32 | 100[a] | |
| Sulfates | | | | | 250,000[a] | |
| Sulfide | | | | | | |
| Temperature | I | | Table 35-1 | | | |
| 1,2,4,5-Tetrachlorobenzene | | | | | 2.3 | 2.9 |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)[8] | | | | | 0.00000013[c] | 0.00000014[c] |
| 1,1,1,2-Tetrachloroethane | II | 1,500 | 770 | 85 | | |
| 1,1,2,2-Tetrachloroethane | II | 1,800 | 910 | 260 | 1.7[c] | 110[c] |
| Tetrachloroethylene | II | 850 | 430 | 53 | 5.0[a,c] | 89[c] |
| Tetrahydrofuran | II | 150,000 | 74,000 | 11,000 | | |

Ohio River Basin Aquatic Life and Human Health Tier I Criteria and Tier II Values
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(See OAC 3745-1-32 for the human health criteria applicable to the Ohio River mainstem.)
Table numbers within this table refer to Chapter 3745-1 of the OAC.
Ohio EPA, Division of Surface Water. 4/9/21

| | Aquatic Life* (µg/l) | | | | Human Health* (µg/l) | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Tetryl | | ID | ID | ID | | |
| Thallium | II | 160 | 79 | 17 | 1.7 | |
| Tin | II | 3,200 | 1,600 | 180 | | |
| Titanium | | ID | ID | ID | | |
| Toluene | II | 1,100 | 560 | 62 | 1,000[a] | 200,000 |
| Toxaphene | | | | | 0.0073[c] | 0.0075[c] |
| 2-[2,4,5-Trichlorophenoxy] propionic acid (2,4,5-TP) | See Silvex | | | | | |
| Tribromomethane | See Bromoform | | | | | |
| 2,4,6-Tribromophenol | II | 100 | 50 | 5.6 | | |
| Trichloroacetic acid[2] | | | | | 60[a] | |
| 1,2,4-Trichlorobenzene | | | | | 70[a] | 940 |
| 1,1,1-Trichloroethane | II | 1,400 | 690 | 76 | 200[a] | |
| 1,1,2-Trichloroethane | II | 6,600 | 3,300 | 740 | 5.0[a,c] | 420[c] |
| Trichloroethylene | II | 4,000 | 2,000 | 220 | 5.0[a,c] | 810[c] |
| Trichloromethane | See Chloroform | | | | | |
| 2,4,5-Trichlorophenol | | | | | 2,600 | 9,800 |
| 2,4,6-Trichlorophenol | II | 79 | 39 | 4.9 | 21[c] | 65[c] |
| 1,2,4-Trimethylbenzene | II | 280 | 140 | 15 | | |
| 1,3,5-Trimethylbenzene | II | 460 | 230 | 26 | 450 | 950 |
| 1,3,5-Trinitrobenzene | II | 54 | 27 | 11 | | |
| 2,4,6-Trinitrotoluene | II | 230 | 120 | 13 | | |
| Urea | II | 300,000 | 150,000 | 17,000 | | |
| Vanadium | II | 300 | 150 | 44 | | |
| Vinyl chloride | II | 17,000 | 8,400 | 930 | 2.0[a,c] | 5,300[c] |

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| | Aquatic Life* (µg/l) | | | | Human Health* (µg/l) | |
|---|---|---|---|---|---|---|
| Chemical | Tier | IMZM | OMZM | OMZA | Drink | Nondrink |
| Vydate | See Oxamyl | | | | | |
| Xylenes[9] | II | 480 | 240 | 27 | 10,000[a] | |
| Zinc - Diss | I | Table 35-9 | | | NA | |
| Zinc - TR | I | Table 35-9 | | | 9,100 | 69,000 |
| Zirconium | | ID | ID | ID | | |

* Some of the aquatic life criteria in this table are listed in OAC 3745-1-35; the other aquatic life criteria have been developed pursuant to OAC 3745-1-40. Most of the human health criteria in this table are listed in OAC 3745-1-33 and 3745-1-34; the criteria based on protection against adverse aesthetic effects are listed in OAC 3745-1-37; the other human health criteria have been developed pursuant to OAC 3745-1-04(D) using USEPA guidelines.

Other water quality criteria:
Ohio River criteria - Additional criteria applicable to the Ohio River mainstem are in OAC 3745-1-32. Those criteria supersede the criteria in this table, where applicable.
Wildlife criteria for PCBs – Table 35-12
Agricultural Water Supply criteria - Table 33-3
Recreational (fecal coliform, E. coli) criteria - Table 37-2
Biological (IBI, Miwb, ICI) criteria - Table 7-1

Legend:
All criteria and values are expressed as total unless specified otherwise.
Diss = dissolved; TR = total recoverable; TRes = total residual.
Blank space = Criterion not calculated; contact the Standards & Technical Support section.
ID = Insufficient data available to calculate criterion.
NA = Not applicable.
IMZM = Inside Mixing Zone Maximum.
OMZM = Outside Mixing Zone Maximum.
OMZA = Outside Mixing Zone Average.
Drink = Human health criterion applicable to Public Water Supply streams (2-route exposure).
Nondrink = Human health criterion - non Public Water Supply (1-route exposure).

Footnotes:
**1** The Human Health criterion for aldicarb applies to the sum of aldicarb, aldicarb sulfone and aldicarb sulfoxide.

**2** The Human Health criterion for this chemical applies to the sum of chloroacetic acid, dichloroacetic acid and trichloroacetic acid.

**3** The Aquatic Life criteria for 1,2-dichloroethylene apply to the sum of cis-1,2-dichloroethylene and trans-1,2-dichloroethylene.

**4** The Human Health criteria for dinitrophenols apply to the sum of the six dinitrophenol isomers.

**5** The Human Health criteria for endosulfan apply to the sum of alpha-endosulfan, beta-endosulfan and endosulfan sulfate.

**6** The Human Health criteria for endrin apply to the sum of endrin and endrin aldehyde.

**7** The Human Health criteria for nitrosoamines apply to those nitrosoamines not specifically listed in this table.

**8** Regulation of the additive effects of chlorinated dibenzo dioxins and chlorinated dibenzo furans is explained in OAC 3745-2-07.

**9** The Aquatic Life and Human Health criteria for xylenes apply to the sum of m-xylene, o-xylene and p-xylene.

**10** See OAC 3745-1-35 for the applicable wildlife criteria.

**a** This criterion is the maximum contaminant level (MCL) developed under the "Safe Drinking Water Act".

**b** No chlorine is to be discharged.

**c** This criterion is based on a carcinogenic endpoint.

**d** Equivalent 25°C specific conductance value is 2400 micromhos/cm.

**e** Equivalent 25°C specific conductance values are 1200 micromhos/cm as a maximum and 800 micromhos/cm as a thirty-day average.

**f** This criterion is based on protection against adverse aesthetic effects.

**g**

| | | | | Criteria | | | |
|---|---|---|---|---|---|---|---|
| Beryllium | Form | Units | Equation | 100 | 200 | 300 | 400 |
| IMZM | TR | ug/l | $e^{(1.609\ [\ln H] - 2.181)}$ | 190 | 570 | 1100 | 1700 |
| OMZM | TR | ug/l | $e^{(1.609\ [\ln H] - 2.874)}$ | 93 | 280 | 540 | 870 |
| OMZA | TR | ug/l | $e^{(1.609\ [\ln H] - 5.017)}$ | 11 | 33 | 64 | 100 |

**h**

| | | | | Criteria | | | |
|---|---|---|---|---|---|---|---|
| Silver | Form | Units | Equation | 100 | 200 | 300 | 400 |
| IMZM | Diss | ug/l | $e^{(1.720\ [\ln H] - 6.922)}$ | 2.7 | 8.9 | 18 | 29 |
| OMZM | Diss | ug/l | $e^{(1.720\ [\ln H] - 7.615)}$ | 1.4 | 4.5 | 9.0 | 15 |
| IMZM | TR | ug/l | $e^{(1.720\ [\ln H] - 6.759)}$ | 3.2 | 11 | 21 | 35 |
| OMZM | TR | ug/l | $e^{(1.720\ [\ln H] - 7.452)}$ | 1.6 | 5.3 | 11 | 17 |

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**i**

| | | | | Criteria | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Barium | Form | Units | Equation | 100 | 150 | 200 | 250 | 300 | 350* |
| IMZM | TR | mg/l | $e^{(0.8713\ [\ln H] - 2.310)}$ | 5.5 | 7.8 | 10 | 12 | 14 | 16* |
| OMZM | TR | mg/l | $e^{(0.8713\ [\ln H] - 3.003)}$ | 2.7 | 3.9 | 5.0 | 6.1 | 7.1 | 8.2* |
| OMZA | TR | mg/l | $e^{(0.8713\ [\ln H] - 4.458)}$ | 0.64 | 0.91 | 1.2 | 1.4 | 1.7 | 1.9* |

*Barium criteria are capped at a water hardness of 350 mg/l

**j**

| | | | | Criteria | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Strontium | Form | Units | Equation | 100 | 150 | 200 | 250 | 300 | 350* |
| IMZM | TR | mg/l | $e^{(1.2999\ [\ln H] - 1.279)}$ | 110 | 190 | 270 | 360 | 460 | 560* |
| OMZM | TR | mg/l | $e^{(1.2999\ [\ln H] - 1.994)}$ | 54 | 92 | 130 | 180 | 230 | 280* |
| OMZA | TR | mg/l | $e^{(1.2999\ [\ln H] - 2.945)}$ | 21 | 35 | 52 | 69 | 87 | 110* |

*Strontium criteria are capped at a water hardness of 350 mg/l