# List of Constituents to be Analyzed with EPA Testing Methods and Permit Limits

| Total Metals | | | | | | |
|---|---|---|---|---|---|---|
| **Parameter Name** | **Regulatory Limit** | **Unit of Measure** | **Detection Limit** | **Unit of Measure** | **Standard Type** | **Analytical Methods** |
| Antimony | 0.006 | mg/L | 0.003 | mg/L | MCL | 200.8, 200.9 |
| Arsenic | 0.01 | mg/L | 0.0025 | mg/L | MCL | 200.7, 200.8, 200.9 |
| Barium | 2 | mg/L | 1 | mg/L | MCL | 200.7, 200.8 |
| Beryllium | 0.004 | mg/L | 0.002 | mg/L | MCL | 200.7, 212.3 |
| Boron | 0.6 | mg/L | 0.3 | mg/L | HA-Lifetime | 200.7, 200.8, 200.9 |
| Cadmium | 0.005 | mg/L | 0.0025 | mg/L | MCL | 200.7, 200.8, 200.9 |
| Chromium (total) | 0.1 | mg/L | 0.05 | mg/L | MCL | 200.7, 200.8, 200.9 |
| Copper | 1.3 | mg/L | 0.65 | mg/L | MCL-TT | 200.7, 200.8, 200.9 |
| Iron | 5 | mg/L | 2.5 | mg/L | Region 8 Permit Limit | 200.7, 200.9 |
| Lead | 0.015 | mg/L | 0.0075 | mg/L | MCL-TT | 200.8, 200.9 |
| Manganese | 0.8 | mg/L | 0.4 | mg/L | Region 8 Permit Limit | 200.7, 200.8, 200.9 |
| Mercury (inorganic) | 0.002 | mg/L | 0.001 | mg/L | MCL | 245.1, 245.2, 200.8 |
| Molybdenum | 0.04 | mg/L | 0.02 | mg/L | HA-Lifetime | 200.7, 246.1, 246.2 |
| Nickel | 0.1 | mg/L | 0.05 | mg/L | HA-Lifetime | 200.7, 200.8, 200.9 |
| Selenium | 0.05 | mg/L | 0.025 | mg/L | MCL | 200.8, 200.9 |
| Silver | 0.1 | mg/L | 0.05 | mg/L | HA-Lifetime | 200.7, 200.8, 200.9 |
| Strontium | 4 | mg/L | 2 | mg/L | HA-Lifetime | 272.1, 272.2, 200.7 |
| Thallium | 0.002 | mg/L | 0.001 | mg/L | MCL | 200.8, 200.9 |
| Zinc | 2 | mg/L | 1 | mg/L | HA-Lifetime | 200.7, 200.8 |

**MCL**: Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available analytical and treatment technologies and taking cost into consideration. MCLs are enforceable standards.

**MCLG**: Maximum Contaminant Level Goal. A non-enforceable health goal which is set at a level at which no known or anticipated adverse effect on the health of persons occurs and which allows an adequate margin of safety.

**TT**: Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

**HA**: Health Advisory. An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a Health Advisory is not a legally enforceable Federal standard, but serves as technical guidance to assist Federal, State, and local officials.

**HA-Lifetime**: The concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for a lifetime of exposure. The Lifetime HA is based on exposure of a 70-kg adult consuming 2 liters of water per day. The Lifetime HA for Group C carcinogens includes an adjustment for possible carcinogenicity.

**SDWR**: Secondary Drinking Water Regulations. Non-enforceable Federal guidelines regarding cosmetic effects (such as tooth or skin discoloration) or aesthetic effects (such as taste, odor, or color) of drinking water.

**Region 8 Permit Limit**: Permit limit calculated by Region 8 Drinking Water Toxicologist based on human health criteria.

| Method 524.2* Volatile Organic Compounds | | | | | | |
|---|---|---|---|---|---|---|
| Parameter Name | CAS No | Regulatory Limit | Unit of Measure | Detection Limit | Unit of Measure | Standard Type |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | 0.07 | mg/L | 0.035 | mg/L | HA-Lifetime |
| 1,1,1-Trichloroethane | 71-55-6 | 0.2 | mg/L | 0.1 | mg/L | MCL |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 0.3 | µm/L | 0.15 | µm/L | HA-Lifetime |
| 1,1,2-Trichloroethane | 79-00-5 | 0.005 | mg/L | 0.0025 | mg/L | MCL |
| 1,1-Dichloroethylene | 75-35-4 | 0.007 | mg/L | 0.035 | mg/L | MCL |
| 1,2-(cis)Dichloroethylene | 156-59-2 | 0.07 | mg/L | 0.035 | mg/L | MCL |
| 1,2-(trans)Dichloroethylene | 156-60-5 | 0.1 | mg/L | 0.005 | mg/L | MCL |
| 1,2,3-Trichloropropane | 96-18-4 | 0.04 | mg/L | 0.02 | mg/L | HA-Lifetime |
| 1,2,4-Trichlorobenzene | 120-82-1 | 0.07 | mg/L | 0.035 | mg/L | MCL |
| 1,2-Dibromomethane (Ethylene Dibromide EDB) | 106-93-4 | 0.05 | µm /L | 0.025 | µm/L | MCL |
| 1,2-Dichlorobenzene o- | 95-50-1 | 0.6 | mg/L | 0.3 | mg/L | MCL |
| 1,2-Dichloroethane | 107-06-2 | 0.005 | mg/L | 0.0025 | mg/L | MCL |
| 1,2-Dichloropropane | 78-87-5 | 0.005 | mg/L | 0.0025 | mg/L | MCL |
| 1,3-Dichlorobenzene m- | 541-73-1 | 0.06 | mg/L | 0.03 | mg/L | HA-Lifetime |
| 1,4-Dichlorobenzene p- | 106-46-7 | 0.075 | mg/L | 0.0375 | mg/L | MCL |
| 2-Chlorotoluene (o-) | 95-49-8 | 0.1 | mg/L | 0.05 | mg/L | HA-Lifetime |
| 4-Chlorotoluene (p-) | 106-43-4 | 0.1 | mg/L | 0.05 | mg/L | HA-Lifetime |
| Acetone | 67-64-1 | 7 | mg/L | 3.5 | mg/L | Region 8 Permit Limit |
| Acrylonitrile | 107-13-1 | 0.006 | mg/L | 0.003 | mg/L | $10^{-4}$ Cancer Risk |
| Benzene | 71-43-2 | 0.005 | mg/L | 0.025 | mg/L | MCL |
| Bromobenzene | 108-86-1 | 4 | mg/L | 2 | mg/L | HA-Ten Day |
| Bromochloromethane | 74-97-5 | 0.09 | mg/L | 0.045 | mg/L | HA-Lifetime |
| Bromodichloromethane (THM) | 75-27-4 | 0.08 | mg/L | 0.04 | mg/L | MCL |
| Bromoform (THM) | 75-25-2 | 0.08 | mg/L | 0.04 | mg/L | MCL |
| Bromomethane | 74-83-9 | 0.01 | mg/L | 0.005 | mg/L | HA-Lifetime |
| Carbon tetrachloride | 56-23-5 | 0.005 | mg/L | 0.025 | mg/L | MCL |
| Chlorobenzene (Monochlorobenzene) | 108-90-7 | 0.1 | mg/L | 0.05 | mg/L | MCL |
| Chlorodibromomethane (Dibromochloromethane) (THM) | 124-48-1 | 0.08 | mg/L | 0.04 | mg/L | MCL |
| Chloroform (THM) | 67-66-3 | 0.08 | mg/L | 0.04 | mg/L | MCL |
| Chloromethane | 74-87-3 | 0.003 | mg/L | 0.0015 | mg/L | HA-Lifetime |
| Cyanogen Chloride | 506-77-4 | 2 | mg/L | 1 | mg/L | HA-DWEL |
| Dichlorodifluoromethane | 75-71-8 | 1 | mg/L | 0.5 | mg/L | HA-Lifetime |
| Dichloromethane (Methylene chloride) | 75-09-2 | 0.005 | mg/L | 0.0025 | mg/L | MCL |
| Ethylbenzene | 100-41-4 | 0.7 | mg/L | 0.35 | mg/L | MCL |
| Hexachlorobutadiene | 87-68-3 | 0.001 | mg/L | 0.0005 | mg/L | HA-Lifetime |
| Hexachloroethane | 67-72-1 | 0.001 | mg/L | 0.0005 | mg/L | HA-Lifetime |
| Isopropylbenzene (cumene) | 98-82-8 | 4 | mg/L | 2 | mg/L | HA-DWEL |
| Methyl Ethyl Ketone | 78-93-3 | 4 | mg/L | 2 | mg/L | HA-Lifetime |

| Method 524.2* Volatile Organic Compounds | | | | | | |
|---|---|---|---|---|---|---|
| Parameter Name | CAS No | Regulatory Limit | Unit of Measure | Detection Limit | Unit of Measure | Standard Type |
| Naphthalene | 91-20-3 | 0.1 | mg/L | 0.05 | mg/L | HA-Lifetime |
| Perchloroethylene (PCE) (Tetrachloroethylene) | 127-18-4 | 0.005 | mg/L | 0.0025 | mg/L | MCL |
| Styrene | 100-42-5 | 0.1 | mg/L | 0.05 | mg/L | MCL |
| Toluene | 108-88-3 | 1 | mg/L | 0.5 | mg/L | MCL |
| Total Trihalomethanes | | 0.08 | mg/L | 0.04 | mg/L | MCL |
| Trichloroethylene (TCE) | 79-01-6 | 0.005 | mg/L | 0.0025 | mg/L | MCL |
| Trichlorofluoromethane | 75-69-4 | 2 | mg/L | 1 | mg/L | HA-Lifetime |
| Vinyl chloride | 75-01-4 | 0.002 | mg/L | 0.001 | mg/L | MCL |
| Xylenes | 1330-20-7 | 10 | mg/L | 5 | mg/L | MCL |

***Use EPA Method 524.2 for analyses of these constituents**

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**HA-DWEL**: Drinking Water Equivalent Level. A lifetime exposure concentration protective of adverse, non-cancer health effects, that assumes all of the exposure to a contaminant is from drinking water.

**Region 8 Permit Limit**: Permit limit calculated by Region 8 Drinking Water Toxicologist based on human health criteria.

**10-4 Cancer Risk**: The concentration of a chemical in drinking water corresponding to an excess estimated lifetime cancer risk of 1 in 10,000

**HA-Ten Day**: The concentration of a chemical in drinking water that is not expected to cause any adverse non-carcinogenic effects for up to ten days of exposure for a 10 kg child consuming 1 liter per day.

| Inorganics | | | | | | |
|---|---|---|---|---|---|---|
| **Parameter Name** | **Regulatory Limit** | **Unit of Measure** | **Detection Limit** | **Unit of Measure** | **Standard Type** | **Analytical Methods** |
| Ammonia | 30 | mg/L | 15 | mg/L | HA-Lifetime | 350.1, 350.2, 350.3 |
| Asbestos (fibers/1>10µm in length) | 7 | MFL | 0.003 | MFL | MCL | 100.1,100.2 |
| Cyanide | 0.2 | mg/L | 0.1 | mg/L | MCL | 335.4 |
| Fluoride | 4 | mg/L | 2 | mg/L | MCL | 300 |
| Nitrate (as N) | 10 | mg/L | 5 | mg/L | MCL | 300 |
| Nitrate-Nitrite (both as N) | 10 | mg/L | 5 | mg/L | MCL | 300 |
| Nitrite (as N) | 1 | mg/L | 0.5 | mg/L | MCL | 300 |

| Radionuclides | | | |
|---|---|---|---|
| **Parameter Name** | **Regulatory Limit** | **Unit of Measure** | **Analytical Method** |
| Radium 226 & 228 combined | 5 | pCi/L | Standard Method 304 |
| Gross alpha particle activity | 15 | pCi/L | EPA Method 900.0 |
| Uranium | 30 | µm /L | EPA 908.0, 908.1 |

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