

CONTAMINANT	EPA LIMIT	LIKELY SOURCES AND EFFECTS OF CONTAMINANTS
Alkalinity	No Limit	Alkalinity is important in determining water's ability to neutralize acidity.
Aluminum	0.05-0.2 mg/L	Aluminum is the third most abundant element in the earth's crust and is a common constituent in many foods and water treatment. Aluminum has been linked to Alzheimer's disease.
Arsenic	0.01 mg/L	Arsenic can occur in water as the result of natural mineral deposits, industrial discharge, or application of insecticides. Severe poisoning can arise from the ingestion of low levels of arsenic.
Barium	2 mg/L	Barium is a naturally occurring mineral. Ingesting barium can affect the heart, blood vessels, and nerves.
Beryllium	0.004 mg/L	Beryllium can occur in water as the result of natural mineral deposits, discharge from metal refineries and coal-burning factories, or industrial waste. Potential health effects are damage to bones and lungs and intestinal lesions.
Boron	1-4 mg/L	Boron may be naturally occurring or as a result of cleaning compounds. Although essential for plant growth, boron in excess of 2.0 mg/L is deleterious to certain plants.
Cadmium	0.005 mg/L	The presence of cadmium is normally the result of the corrosion of galvanized pipe. It can also occur from waste batteries and paints. Cadmium is highly toxic.
Calcium	No Limit	Calcium results from water passage through limestone, dolomite, gypsum, and gypsiferous shale. It is a major contributor to the build-up of scale on kitchen and bathroom fixtures.
Chloride	250 mg/L	Chloride can cause a salty or brackish taste in water. A high chloride content may deteriorate metal pipes, as well as damage plants.
Chromium	0.1 mg/L	Chromium can occur in water as the result of natural mineral deposits and discharge from steel and pulp mills. Potential health effects are skin irritation and damage to liver and nerve tissues.
Cobalt	No Limit	Cobalt is an integral part of the Vitamin B-12 complex, and therefore essential in trace amounts for humans and animal life. However, in higher concentrations cobalt is toxic to humans, aquatic animals and plants. Due to lack of data, no limit has been set by the EPA for drinking water.
Conductivity	700	Conductivity measures the amount of time it takes electrical current to travel through water. It indicates the total mineral content of the water.
Copper	1.3 mg/L	Most copper contamination occurs as a result of the corrosion of copper pipes and fittings. At high levels copper can cause a bitter metallic taste, blue-green stains, or flu-like symptoms.
Fluoride	4 mg/L	Fluoride can occur naturally in water or as a product of industrial waste. The long-term effects are permanent brown staining of the teeth, destruction of tooth enamel, and brittle bones.
Hardness	250 mg/L	Total hardness results from minerals that combine with soap, causing an insoluble scum. Hardness causes scaling in pots and incrustation in water heaters. The amount of soap needed increases with hardness.
Iron	0.3 mg/L	Iron causes rusty staining of laundry and porcelain. Also, a bitter or astringent taste can occur.
Lead	0.015 mg/L	Lead is a serious cumulative body poison. It is normally the result of the corrosive action of water on pipe fittings and solder.
Lithium	No Limit	Naturally occurring element.
Magnesium	No Limit	Magnesium results from passage of water through soil and rock. It is also a contributor to the build-up of scale on kitchen and bathroom fixtures.
Manganese	0.05 mg/L	Manganese causes tenacious stains, usually black, to laundry and plumbing fixtures. High levels can accelerate biological growth and produce taste and odor.

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Molybdenum	No Limit	An essential trace element, however it imparts a slightly astrigent taste above 10 mg/L.
Nickel	0.1 mg/L	Nickel can occur in water as the result of natural mineral deposits and metal alloys. Nickel can affect the heart and liver.
Nitrate	10.0 mg/L	Nitrates reduce the blood's ability to carry oxygen; infants and pregnant women are highly susceptible. Nitrate contamination usually occurs from inorganic fertilizer or animal waste.
Nitrite	1 mg/L	Nitrite rapidly converts to nitrate, with similar effects as nitrate (see above).
Ortho Phosphate	No Limit	Ortho phosphate forms are produced by natural processes, but may also be influenced by outside sources including untreated sewage, runoff from agricultural sites and application of certain lawn fertilizers.
pH	6.5-8.5	The ideal pH of drinking water is 7.5. When pH is below 7.0 the water is considered acidic and can cause corrosion of pipes. When pH is above 8.0 the water is alkaline and can cause mineral deposits on pipes.
Potassium	No Limit	Potassium can be used as a substitute for sodium in water softeners.
Selenium	0.05 mg/L	Selenium can occur in water as the result of natural mineral deposits, discharge from petroleum and metal refineries, and discharge from mines. Potential health risks are hair and fingernail loss, damage to kidney and liver tissue, and damage to the nervous and circulatory systems.
Silver	0.1 mg/L	Silver can occur in water as the result of photographic industry discharges or using silver as a bacteriostat. Silver can cause skin discoloration and graying of the white part of the eye.
Sodium	No Limit	It is assumed the average person ingests about 5,000 mg of sodium per day. For persons on restricted sodium diets of less than 1,000 mg per day, the upper limit for total sodium concentration of water is about 66 mg/L.
Sodium Adsorption Ratio	No Limit	Sodium adsorption ratio (SAR) is a measure of the suitability of water for use in agricultural irrigation.
Sulfate	250 mg/L	Sulfate in high concentrations may impart a bitter taste and also act as a laxative.
Total Dissolved Solids	No Limit	Total dissolved solids (TDS) is a measure of the combined content of all inorganic and organic substances contained in a liquid.
Turbidity	No Limit	Turbidity is the cloudiness or haziness of water caused by individual particles that are generally invisible to the naked eye. These small solid particles cause the liquid to appear turbid.
Vanadium	No Limit	OEHA (Office of Environmental Health Hazard Assessment) recommends a notification level of 0.50 mg/L.
Zinc	5.0 mg/L	Zinc is essential and beneficial to human growth. In high concentrations it gives water a strong metallic taste.
Special Circumstances		Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.
Measurement Note		Milligrams per liter (mg/L) is the same as parts per million (ppm). One part per million corresponds to a single penny in \$10,000.

References:
Standard Methods 14th edition
Environmental Protection Agency <http://www.epa.gov/dwstandardsregulations>
The Pipeline Publication, Oregon Health Division