

# Water Words Dictionary—Appendix B-4

## WATER CONTAMINANTS

### CONTAMINANTS, HEALTH EFFECTS, AND SOURCES

Contaminant	Health Effects	Sources
Total coliform	Not necessarily disease-causing themselves, coliforms can be indicators of organisms that can cause gastroenteric infections, dysentery, hepatitis, typhoid fever, cholera, and others. Also, coliforms interfere with disinfection.	Human and animal fecal matter
Turbidity	Interferes with disinfection	Erosion, runoff, discharges
<i>Giardia lamblia</i>	Giardiasis (stomach cramps, intestinal distress)	Human and animal fecal matter
Enteric viruses	Gastroenteritis (intestinal distress)	Human and animal fecal matter
<i>Legionella</i>	Legionnaires' disease (pneumonia), Pontiac Fever	Water aerosols such as vegetable misters
Arsenic	Dermal and nervous system toxicity effects	Geological, pesticide residues, industrial wastes, smelter operations
Barium	Circulatory system effects	Geological, pesticide residues, industrial wastes, smelter operations
Cadmium	Kidney effects	Geological, mining, and smelting
Chromium	Liver and kidney effects	Geological, mining, and smelting
Fluoride	Skeletal damage	Geological, additive to drinking water, toothpaste, foods process with fluoridated water
Lead	Central and peripheral nervous system damage, kidney effects, highly toxic to infants and pregnant women	Leaches from lead pipe and lead-based solder pipe joints
Mercury	Central nervous system disorders, kidney effects	Used in manufacture of paint, paper, vinyl chloride and fungicides. Geological
Nitrate	Methemoglobinemia (blue baby syndrome)	Fertilizer, sewage, feedlots, geological
Selenium	Gastrointestinal effects	Geological, mining
Silver	Skin discoloration (argyria)	Geological, mining
Endrin	Nervous system/kidney effects	Insecticide used on cotton, small grains, orchards (canceled)

<b>Contaminant</b>	<b>Health Effects</b>	<b>Sources</b>
Lindane	Nervous system/liver effects	Insecticide used on seed and soil treatments, foliage application, wood protection
Methoxychlor	Nervous system/kidney effects	Insecticide used on fruit trees, vegetables
Toxaphene	Cancer risk (potentially carcinogenic)	Insecticide used on cotton, corn, grains
2,4-D	Liver/kidney effects	Herbicide used to control broad-leaf weeds in agriculture, used on forests, range, pastures, and aquatic environments
2,4,5-TP	Liver/kidney effects	Herbicide, canceled in 1984
Benzene	Cancer (carcinogen)	Fuel (leaking tanks), solvent commonly used in manufacture of industrial chemicals, pharmaceuticals, pesticides, paints, and plastics
Carbon tetrachloride	Cancer risk (potentially carcinogenic)	Common in cleaning agents, industrial wastes from manufacture of coolants
1,2-dichloroethane	Cancer risk (potentially carcinogenic)	Used in manufacture of insecticides, gasoline
Trichloroethylene	Cancer risk (potentially carcinogenic)	Waste from disposal of dry cleaning materials, and manufacture of pesticides, paints, waxes and varnishes, paint stripper, metal degreaser
Para-dichlorobenzene	Cancer risk (potentially carcinogenic)	Used in insecticides, moth balls, air deodorizers
1,1-dichloroethylene	Liver/kidney effects	Used in manufacture of plastics, dyes, perfumes, paints, synthetic organic chemicals (SOCs)
1,1,1-trichloroethane	Nervous system effects	Used in manufacture of food wrappings, synthetic fibers
Vinyl chloride	Cancer (carcinogen)	Industrial waste from manufacture of plastics and synthetic rubber

<b>Contaminant</b>	<b>Health Effects</b>	<b>Sources</b>
Gross alpha	Cancer (carcinogen)	Radioactive waste, uranium deposits
Radium 226 & 228	Bone cancer (carcinogen)	Radioactive waste, geological
Gross beta	Cancer (carcinogen)	Radioactive waste, uranium deposits

Source: *The Safe Drinking Water Act* (Pocket Guide), U.S. Environmental Protection Agency (EPA), Region 9, San Francisco, California, June 1993.