



## DRINKING WATER GUIDELINES

**Environmental Working Group (EWG)** Health Guidelines to ensure safe drinking water for everyone. Our database shows the maximum concentration of a drinking water contaminant that health standards consider safe.

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Aluminum	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 600 ppb	Central nervous system harm
Antimony	6 ppb	CALIFORNIA PUBLIC HEALTH GOAL 1 ppb	Liver, stomach and intestinal harm
Arsenic	10 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.004 ppb	Cancer, nervous system harm, integumentary system harm, risk of stroke, risk of diabetes
Atrazine	3 ppb	EWG RECOMMENDED HEALTH GUIDELINE 0.1 ppb	Cancer, harm to developing fetus, hormone disruption, reproductive system harm, central nervous system harm
Barium	2 ppm	Children's health based limit for 10 day exposure, as defined by the Environmental Protection Agency 0.7 ppm	kidney harm, high blood pressure, cardiovascular system harm
Benzene	5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.15 ppb	Cancer, blood cell harm, central nervous system harm, disruption in child development, immune system harm
Benzo[a]pyrene	0.2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.007 ppb	Cancer, immune system harm, reproductive system harm, disruption of child development, central nervous system harm
Beryllium	4 ppb	CALIFORNIA PUBLIC HEALTH GOAL 1 ppb	Stomach and intestinal harm, harm to the lungs, skeletal system harm

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Bromate	10 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.1 ppb	Cancer
Bromochloroacetic acid	NO LEGAL LIMIT	EWG RECOMMENDED HEALTH GUIDELINE 0.02 ppb	Cancer, harm to fetus development
Bromodichloro- acetic acid	NO LEGAL LIMIT	EWG RECOMMENDED HEALTH GUIDELINE 0.04 ppb	Cancer, harm to fetus development
Bromodichloro- methane	NO LEGAL LIMIT	CALIFORNIA OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT 0.06 ppb	Cancer, reproductive harm, harm to fetus and child development
Bromoform	NO LEGAL LIMIT	CALIFORNIA OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT 0.5 ppb	Cancer, reproductive harm, harm to fetus and child development
Cadmium	5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.04 ppb	Cancer, kidney harm, behavioral change
Carbofuran	40 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.7 ppb	Central nervous system harm, reproductive system harm
Carbon tetrachloride	5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.1 ppb	Cancer, liver and kidney harm, central nervous system harm, decreased fertility
Chlorate	NO LEGAL LIMIT	Health benchmark defined by the Environmental Protection Agency for testing under the Unregulated Contaminant Monitoring Rule program 210 ppb	Hormone disruption
Chlordane	2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.03 ppb	Cancer, hormone disruption, reproductive harm, disruption of child development

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Chlorodibromo- acetic acid	NO LEGAL LIMIT	EWG RECOMMENDED HEALTH GUIDELINE 0.02 ppb	Cancer, harm to fetal development
Chlorite	1 ppm	CALIFORNIA PUBLIC HEALTH GOAL 0.050 ppm	Blood cell harm, thyroid horomone disruption, reproductive harm
Chloroform	NO LEGAL LIMIT	CALIFORNIA OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT 0.4 ppb	Cancer, harm to fetus development
Chloromethane	NO LEGAL LIMIT	Health benchmark defined by the Environmental Protection Agency for testing under the Unregulated Contaminant Monitoring Rule program 2.69 ppb	Cancer
Chromium (hexavalent)	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 0.02 ppb	Cancer, liver harm, reproductive harm
Cobalt	NO LEGAL LIMIT	ENVIRONMENTAL PROTECTION AGENCY 70 ppb	Cardiovascular harm, change in blood chemistry, stomach and intestinal harm
Copper	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 300 ppb	Diarrhea, weight loss, vomiting
Cyanide	200 ppb	CALIFORNIA PUBLIC HEALTH GOAL 150 ppb	Central nervous system harm, thyroid harm
Di(2-ethylhexyl) adipate	400 ppb	CALIFORNIA PUBLIC HEALTH GOAL 200 ppb	Harm to fetus development, liver harm
Di(2-ethylhexyl) phthalate	6 ppb	ENVIRONMENTAL PROTECTION AGENCY 3 ppb	Male reproductive harm, immune system harm, fetal development harm, horomone disruption

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Dibromoacetic acid	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 0.03 ppb	Cancer, harm to fetal development
Dibromochloro-methane	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 0.1 ppb	Cancer, harm to fetal development
Dichloroacetic acid	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 0.2 ppb	Cancer, harm to fetus development
p-Dichlorobenzene	75 ppb	CALIFORNIA PUBLIC HEALTH GOAL 6 ppb	Cancer, liver, kidney and thyroid harm
Dichloromethane (methylene chloride)	5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 4 ppb	Cancer, reproductive harm, harm to child development, liver harm
Diquat	20 ppb	CALIFORNIA PUBLIC HEALTH GOAL 6 ppb	Fetus development change, body weight change, kidney harm, cataracts
Endothall	100 ppb	CALIFORNIA PUBLIC HEALTH GOAL 94 ppb	Stomach and intestinal harm, eye damage, skin irritation
Endrin	2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.3 ppb	Cancer, central nervous system harm, immune system harm, reproductive harm
Ethylbenzene	700 ppb	CALIFORNIA PUBLIC HEALTH GOAL 300 ppb	Cancer, lung, liver and kidney harm, central nervous system harm
Ethylene dibromide	0.05 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.01 ppb	Cancer, reproductive harm, central nervous system harm, fetus development harm

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Glyphosate	700 ppb	EWG RECOMMENDED HEALTH GUIDELINE 5 ppb	Cancer, harm to fetal development, kidney harm
Haloacetic acids (HAA5)	60 ppb	EWG RECOMMENDED HEALTH GUIDELINE 0.1 ppb	Cancer, harm to fetal development
Heptachlor	0.4 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.008 ppb	Cancer, hormone disruption, central nervous system harm
Heptachlor epoxide	0.2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.006 ppb	Cancer, hormone disruption, liver harm
Hexachloro- benzene	1 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.03 ppb	Cancer, central nervous system harm, hormone disruption
Hexachlorocyclo- pentadiene	50 ppb	CALIFORNIA PUBLIC HEALTH GOAL 2 ppb	Stomach and intestinal harm, change to the liver and kidneys, lung irritation
Hexafluoropropy- lyene oxide dimer acid (HFPO-DA)	10 ppt	EPA'S HUMAN HEALTH TOXICITY VALUE 9 ppt	Harm to the liver
Lead	10 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.2 ppb	Harm to the central nervous system
Lindane	0.2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.032 ppb	Cancer, central nervous system harm, immune system harm
Manganese	NO LEGAL LIMIT	MINNESOTA DEPARTMENT OF HEALTH 100 ppb	Central nervous system harm, behavioral change

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Mercury (inorganic)	2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 1.2 ppb	Central nervous system harm, disruption to fetal and child development, kidney and immune system harm
Methoxychlor	40 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.09 ppb	Hormone disruption reproductive system harm, kidney, liver, immune system, and nervous system harm
Molybdenum	NO LEGAL LIMIT	ENVIRONMENTAL PROTECTION AGENCY 40 ppb	Change in blood chemistry, gout
Monobromoacetic acid	NO LEGAL LIMIT	EWG RECOMMENDED HEALTH GUIDELINE 25 ppb	Disruption in fetal development
Monochloroacetic acid	NO LEGAL LIMIT	EWG RECOMMENDED HEALTH GUIDELINE 53 ppb	Disruption in fetal development
Monochloro- benzene (chlorobenzene)	100 ppb	CALIFORNIA PUBLIC HEALTH GOAL 70 ppb	Liver and kidney harm
MTBE	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 13 ppb	Cancer
N-Nitrosodimethyl- amine (NDMA)	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 0.003 ppb	Cancer
Nitrate (measured as Nitrogen)	10 ppm	EWG RECOMMENDED HEALTH GUIDELINE 0.14 ppm	Cancer, disruption of fetus and child development
Oxamyl	200 ppb	CALIFORNIA PUBLIC HEALTH GOAL 26 ppb	Central nervous system harm, child development disruption

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Pentachlorophenol	1 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.3 ppb	Cancer, harm to child development, immune system harm, hormone disruption
Perchlorate	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 1 ppb	Hormone disruption, harm to fetal growth and child development
Perfluorobutane sulfonate (PFBS)	NO LEGAL LIMIT	EPA'S HUMAN HEALTH TOXICITY VALUE 2 ppb	Hormone disruption, harm to fetal growth and child development
Perfluorobutanoic acid (PFBA)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW 1 ppb	Harm to fetal growth and child development
Perfluorodecanoic acid (PFDA)	NO LEGAL LIMIT	EPA TOXICITY VALUE PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW 0.006 ppt	Harm to the immune system, harm to fetal growth and child development
Perfluorodecane- sulfonic acid (PFDS)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW 0.001 ppt	Harm to the developing immune system
Perfluorodecanoic acid (PFDoA)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW 0.006 ppt	Harm to the immune system, harm to fetal growth and child development
Perfluoroheptanoic acid (PFHPA)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW 1 ppb	Harm to fetal growth and child development
Perfluoroheptanoic acid (PFHpS)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW 0.001 ppt	Harm to the developing immune system
Perfluorohexane sulfonate (PFHXS)	10 ppt	EPA TOXICITY VALUE PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW 0.001 ppb	Harm to the developing immune system



CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Perfluorohexanoic acid (PFHxA)	NO LEGAL LIMIT	EPA TOXICITY VALUE PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW <b>1 ppb</b>	Harm to fetal growth and child development
Perfluorononanoic acid (PFNA)	10 ppt	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW <b>0.006 ppb</b>	Harm to the immune system, harm to fetal growth and child development
Perfluorooctane sulfonate (PFOS)	4 ppt	EPA FINAL TOXICITY VALUE FROM THE OFFICE OF WATER'S FINAL HUMAN HEALTH TOXICITY ASSESSMENT <b>0.3 ppt</b>	Cardiovascular harm and harm to fetal growth
Perfluorooctane sulfonate (PFOSA)	NO LEGAL LIMIT	EPA FINAL TOXICITY VALUE FROM THE OFFICE OF WATER'S FINAL HUMAN HEALTH TOXICITY ASSESSMENT <b>0.3 ppt</b>	Cardiovascular harm and harm to fetal growth
Perfluorooctanoic acid (PFOA)	4 ppt	EPA FINAL TOXICITY VALUE FROM THE OFFICE OF WATER'S FINAL HUMAN HEALTH TOXICITY ASSESSMENT <b>0.09 ppt</b>	Immune system and liver harm, hormone disruption, fetal and child development harm
Perfluoropentanoic acid (PFPeA)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW <b>1 ppb</b>	Harm to fetal growth and child development
Perfluorotetradecanoic acid (PFTA)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW <b>0.006 ppt</b>	Harm to the immune system, harm to fetal growth and child development
Perfluorotridecanoic acid (PFTrDA)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW <b>0.006 ppt</b>	Harm to the immune system, harm to fetal growth and child development
Perfluoroundecanoic acid (PFUnA)	NO LEGAL LIMIT	EPA RECOMMENDED APPLICATION FOR THE TOXICITY VALUE FOR PFHXA PUBLISHED IN THE INTEGRATED RISK INFORMATION SYSTEM'S TOXICOLOGICAL REVIEW <b>0.006 ppt</b>	Harm to the immune system, harm to fetal growth and child development
Picloram	500 ppb	CALIFORNIA PUBLIC HEALTH GOAL <b>166 ppb</b>	Liver, kidney, and reproductive harm



CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Polychlorinated biphenyls (PCBs)	0.5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.09 ppb	Breast cancer, prostate cancer, hormone disruption, immune and nervous system harm
Radium-226	5 pCi/L for combined radium-226 and radium-228	CALIFORNIA PUBLIC HEALTH GOAL 0.05 pCi/L	Cancer
Radium-228	5 pCi/L for combined radium-226 and radium-228	CALIFORNIA PUBLIC HEALTH GOAL 0.019 pCi/L	Cancer
Selenium	50 ppb	CALIFORNIA PUBLIC HEALTH GOAL 30 ppb	Hormone disruption, child development disruption, central nervous system and skin damage
Simazine	4 ppb	EWG RECOMMENDED HEALTH GUIDELINE 0.1 ppb	Cancer, Hormone disruption, reproductive harm, behavioral change
Stronium	NO LEGAL LIMIT	Health benchmark defined by the Environmental Protection Agency for testing under the Unregulated Contaminant Monitoring Rule Program 1.5 ppm	Harm to bones
Stronium-90	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 0.35 pCi/L	Cancer, harm to bones
Styrene	100 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.5 ppb	Cancer, harm to the liver, brain and nervous system harm
Tetrachloro-ethylene (perchloroethylene)	5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.06 ppb	Lung, breast and colon cancer, kidney, liver, and central nervous system harm
Thallium	2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.1 ppb	Hair loss, liver, central nervous system, and male reproductive system harm

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Toluene	1 ppm	CALIFORNIA PUBLIC HEALTH GOAL 0.15 ppm	Brain, nervous system, liver, immune system, and reproductive harm, fetal development harm
Total trihalo- methanes (TTHMs)	80 ppb	EWG RECOMMENDED HEALTH GUIDELINE 0.15 ppb	Bladder and skin cancer, fetal growth disruption
Toxaphene	3 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.03 ppb	Cancer, brain, nervous system, and kidney harm, horomone disruption
Tribromoacetic acid	NO LEGAL LIMIT	EWG RECOMMENDED HEALTH GUIDELINE 0.04 ppb	Disruption in fetal development
Trichloroacetic acid	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 0.1 ppb	Cancer, reproductive harm, disruption in child development
Trichloroethylene	5 ppb	A risk assessment advisory level defined by the Minnesota Department of Health 0.4 ppb	Cancer, change to fetal growth, liver and kidney harm
Trichlorofluoro- methane	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 1.3 ppm	Liver harm, central nervous system change, harm to the heart and blood vessels
Trichlorotrifluoro- ethane	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 4 ppm	Liver harm, central nervous system change, harm to the heart and blood vessels
Tritium	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 400 pCi/L	Cancer
Uranium	30 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.43 pCi/L	Cancer, kidney harm

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
Vanadium	NO LEGAL LIMIT	Health benchmark defined by the Environmental Protection Agency for testing under the Unregulated Contaminant Monitoring Rule Program 21 ppb	Blood chemistry change, reproductive harm, child development disruption
Vinyl chloride	2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.05 ppb	Liver cancer, liver harm, central nervous system change
Xylenes (total)	10 ppm	CALIFORNIA PUBLIC HEALTH GOAL 1.8 ppm	Brain and nervous system harm, central nervous system change, fetal development change
1,1-Dichloroethane	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 3 ppb	Cancer, cardiovascular changes
1,1,2-Trichloroethane	5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.3 ppb	Liver cancer, kidney harm, central nervous system change
1,2-Dibromo-3-chloropropane	0.2 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.0017 ppb	Testicular cancer, male reproductive harm, infertility
1,2-Dichloroethane	5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.4 ppb	Cancer, immune system, stomach, intestinal, liver, kidney, brain, and nervous system harm
1,2 Dichloropropane	5 ppb	CALIFORNIA PUBLIC HEALTH GOAL 0.5 ppb	Liver cancer, liver harm, kidney harm, change in blood cells
1,2,3-Trichloropropane	NO LEGAL LIMIT	CALIFORNIA PUBLIC HEALTH GOAL 0.0007 ppb	Cancer
1,2,4-Trichlorobenzene	70 ppb	CALIFORNIA PUBLIC HEALTH GOAL 5 ppb	Cancer, adrenal gland harm

CONTAMINANT	FEDERAL LEGAL LIMIT	HEALTH STANDARDS	POTENTIAL EFFECTS
1,3-Butadiene	NO LEGAL LIMIT	ENVIRONMENTAL PROTECTION AGENCY 0.0103 ppb	Cancer, brain, nervous system, reproductive, and child development harm, blood and kidney harm
1,4-Dioxane	NO LEGAL LIMIT	ENVIRONMENTAL PROTECTION AGENCY 0.35 ppb	Cancer, lung irritation, kidney harm
p-Dichlorobenzene	75 ppb	CALIFORNIA PUBLIC HEALTH GOAL 6 ppb	Cancer, liver, kidney, and thyroid harm
2,4-D (2,4-dichloro- phenoxyacetic acid	70 ppb	CALIFORNIA PUBLIC HEALTH GOAL 20 ppb	Horomone disruption, liver, kidney, thyroid, brain and nervous system harm, immune system change