

Fact Sheet



National Drinking Water Standards

Contaminant (units)	Highest Level Allowed (MCL)	EPA MCLG (EPA goal)	Major Sources in Drinking Water
Microbiological Contaminants			
Total Coliform Bacteria	5%	0%	Naturally present in the environment
Fecal coliform and E. coli	0%	0%	Human and animal fecal waste
Turbidity	TT	N/A	Soil runoff
Source Water:			
Total Organic Carbon			Naturally present in the environment
Radioactive Contaminants			
Beta/photon emitters (mrem/yr)	4	0	Decay of natural and man-made deposits
Alpha emitters (pCi/L)	15	0	Erosion of natural deposits
Combined radium (pCi/L)	5	0	Erosion of natural deposits
Uranium (µg/L)	30	0	Erosion of natural deposits
Inorganic Contaminants			
Antimony (ppb)	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder

Arsenic (ppb)	10	0	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Asbestos (MFL)	7	7	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	4	4	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Bromate (ppb)	10	0	By-product of drinking water disinfection
Cadmium (ppb)	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chloramines (ppm)	MRDL=4	MRDLG=4	Water additive used to control microbes
Chlorine (ppm)	MRDL=4	MRDLG=4	Water additive used to control microbes
Chromium (ppb)	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Chlorite (ppm)	1	0.8	By-product of drinking water disinfection
Chlorine Dioxide (ppb)	MRDL=800	MRDLG=800	Water additive used to control microbes
Copper (ppm)	AL=1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Cyanide (ppb)	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead (ppb)	AL=15	0	Corrosion of household plumbing systems; Erosion of natural deposits
Mercury [inorganic] (ppb)	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nitrate (ppm)	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Nitrite (ppm)	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium (ppm)	N/A	N/A	Erosion of natural deposits
Thallium (ppb)	2	0.5	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides			
2,4-D (ppb)	70	70	Runoff from herbicide used on row crops
2,4,5-TP [Silvex](ppb)	50	50	Residue of banned herbicide
Acrylamide	TT	0	Added to water during sewage/wastewater treatment
Alachlor (ppb)	2	0	Runoff from herbicide used on row crops
Atrazine (ppb)	3	3	Runoff from herbicide used on row crops
Benzo(a)pyrene [PAH] (nanograms/L)	200	0	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	40	40	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	2	0	Residue of banned termiticide
Dalapon (ppb)	200	200	Runoff from herbicide used on rights of way
Di(2-ethylhexyl)adipate (ppb)	400	400	Discharge from chemical factories
Di(2-ethylhexyl)phthalate (ppb)	6	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	7	7	Runoff from herbicide used on soybeans and vegetables
Dioxin [2,3,7,8-TCDD] (ppq)	30	0	Emissions from waste incineration and other combustion; Discharge from chemical factories
Endothall (ppb)	100	100	Runoff from herbicide use
Endrin (ppb)	2	2	Residue of banned insecticide
Epichlorohydrin	TT	0	Discharge from industrial chemical factories; An impurity of some water treatment chemicals
Ethylene dibromide (ppt)	50	0	Discharge from petroleum refineries
Glyphosate (ppb)	700	700	Runoff from herbicide use
Heptachlor (ppt)	400	0	Residue of banned pesticide
Heptachlor epoxide (ppt)	200	0	Breakdown of heptachlor

Hexachlorobenzene (ppb)	1	0	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopent adiene (ppb)	50	50	Discharge from chemical factories
Lindane (ppt)	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate] (ppb)	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)	500	0	Runoff from landfills; Discharge of waste chemicals
Pentachlorophenol (ppb)	1	0	Discharge from wood preserving factories
Picloram (ppb)	500	500	Herbicide runoff
Simazine (ppb)	4	4	Herbicide runoff
Toxaphene (ppb)	3	0	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Contaminants			
Benzene (ppb)	5	0	Discharge from factories; Leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	5	0	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	100	100	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	600	600	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	75	75	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	5	0	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	7	7	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	70	70	Discharge from industrial chemical factories
trans-1,2- Dichloroethylene (ppb)	100	100	Discharge from industrial chemical factories
Dichloromethane (ppb)	5	0	Discharge from industrial chemical factories
1,2-Dichloropropane (ppb)	5	0	Discharge from industrial chemical factories
Ethylbenzene (ppb)	700	700	Discharge from petroleum refineries
Haloacetic Acids (HAA) (ppb)	60	N/A	Discharge from rubber and plastic factories; Leaching from landfills

Styrene (ppb)	100	100	Discharge from rubber and plastic factories; Leaching from landfills
Tetrachloroethylene (ppb)	5	0	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	70	70	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	200	200	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	5	3	Discharge from industrial chemical factories
Trichloroethylene (ppb)	5	0	Discharge from metal degreasing sites and other factories
TTHMs [Total trihalomethanes] (ppb)	80	N/A	By-product of drinking water chlorination
Toluene (ppm)	1	1	Discharge from petroleum factories
Vinyl Chloride (ppb)	2	0	Leaching from PVC piping; Discharge from plastics factories
Xylenes (ppm)	10	10	Discharge from petroleum factories; Discharge from chemical factories
Pretreatment Raw Water Testing			
Cryptosporidium	<0.075	0	Animal waste runoff to rivers and streams

AL = Action Level. 90% of all samples must be below this level.

TT = Treatment Technique. The utility is required to use certain treatment techniques to remove turbidity.

MRDL = Maximum Residual Disinfectant Level.

For more information, call Des Moines Water Works at (515) 283-8700 or visit www.dmwv.com.

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