

# Analyte Reference Guide

Legend	Contaminant	Public Health Goal	EPA MCL (mg/L)	FDA SOQ (mg/L)	IBWA SOQ (mg/L)	Potential Health effects from exposure above the MCL	Common sources of contaminate in drinking water	Additional Sources of contamination in bottled water operations
OC	Acrylamide	zero	TT8			Nervous system or blood problems. Probable cause of cancer	Added to water during sewage/wastewater increased risk of cancer treatment	
OC	Alachlor	zero	0.002	0.002	0.002	Eye, liver, kidney or spleen problems; anemia; increased risk of cancer	Runoff from herbicide used on row crops such as corn, soybeans, sugar cane and wheat	Air vents (to plant or storage tanks) if vented to outdoors, within close range of agriculture, etc.
OC	Aldicarb		0.003	NA	0.003	Immune system effects, neurological syndromes.	Frequently found contaminant esp. in sandy soil	
OC	Aldicarb Sulfone		0.003	NA	0.003	Immune system effects, neurological syndromes.	Frequently found contaminant esp. in sandy soil	
OC	Aldicarb Sulfoxide		0.004	NA	0.004	Immune system effects, neurological syndromes.	Frequently found contaminant esp. in sandy soil	
R	Alpha particles	zero	15 picocuries per Liter (pCi/L)	15 picocuries per Liter (pCi/L)	15 picocuries per Liter (pCi/L)	Affects skeletal tissue, bone sarcomas, head sarcomas; probable cause of cancer	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation	
IOC	Aluminum		0.2 <sup>9</sup>	0.2	0.2	Implicated in neurodegenerative disease.	Naturally occurring as a consequence of leaching from soil and rock. Aluminum salts used as coagulants in water treatment.	Residual aluminum due to high aluminum concentrations in source water.
IOC	Antimony	0.006	0.006	0.006	0.006	Increase in blood cholesterol; decrease in blood sugar. Carcinogen. Irritation to eyes & skin tissue.	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder, iron & steel mfg as a hardening alloy and textile mills.	Trace contaminant from leaching of certain types of carbon.
IOC	Arsenic	0	Currently 0.050. Will be 0.010 as of 1/23/06	0.050 (currently under review for SOQ revision)	0.010	Malignant tumors of skin and lungs. May cause problems with the nervous system.	Erosion of natural deposits; runoff from orchards, runoff from glass, electronics production waste, wood treatment compounds, pharmaceutical manufacturing, and paint & ink formulation.	



Disinfectant



Inorganic Chemical



Organic Chemical



Disinfection Byproduct



Microorganism



Radionuclide

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IOC	<b>Asbestos</b> (fibers >10 micrometers)	7 MFL	7 million fibers per Liter (MFL)			Increased risk of developing benign intestinal polyps	Cement pipe, fireproofing materials, insulation; erosion of natural mineral deposits	
OC	<b>Atrazine</b>	0.003	0.003	0.003	0.003	Affects reproductive system, liver, heart & kidneys; probably cause of cancer	Runoff from herbicide used on row crops such as corn, soybeans, sugar cane and wheat	Air vents (to plant or storage tanks) if vented to outdoors, within close range of agriculture, etc.
IOC	<b>Barium</b>	2	2	2	1	Increase in blood pressure; affects nervous & circulatory systems	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
OC	<b>Benzene</b>	zero	0.005	0.005	0.001	Anemia; decrease in blood platelets; Leukemia	Used as a solvent in mfg pharmaceuticals, plastics, pesticides & paints; leaching from gas storage tanks and landfills	Environmental exposure either in plant, during transportation or in storage; sometimes present in sources which are naturally carbonated.
OC	<b>Benzo(a)pyrene (PAHs)</b>	zero	0.0002	0.0002	0.0002	Reproductive difficulties; increased risk of cancer	Leaching from linings of water storage tanks and distribution lines	
IOC	<b>Beryllium</b>	0.004	0.004	0.004	0.004	Intestinal lesions; effects skin and lung tissues; carcinogen	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries	
R	<b>Beta particles and photon emitters</b>	zero	4 millirems per year	50 pCi/L	50 pCi/L	Affects skeletal tissue, bone sarcomas, head sarcomas; probable cause of cancer	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation	Addition of potassium minerals.
DBP	<b>Bromate</b>	zero	0.010	0.010	0.010	Increased risk of cancer	Byproduct of drinking water disinfection	By-product of ozonation
IOC	<b>Cadmium</b>	0.005	0.005	0.005	0.005	Kidney disorders, bronchitis, anemia	Used in textile mills and timber product processing; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints	
OC	<b>Carbofuran</b>	0.04	0.04	0.04	0.04	Affects nervous & reproductive systems, liver & kidneys. Caused leukemia & anemia; probable cause of cancer	Leaching of soil fumigant used on Rice, alfalfa, corn, potatoes & cotton	Air vents (to plant or storage tanks) if vented to outdoors, within close range of agriculture, etc.
OC	<b>Carbon Tetrachloride</b>	zero	0.005	0.005	0.005	Affects nervous system; liver problems; increased risk of cancer	Used as a cleaning agent & in mfg of refrigerants, fumigants, propellants, resins, paint & ink formulation	Environmental exposure either in plant, during transportation or in storage;

**D**

Disinfectant

**IOC**

Inorganic Chemical

**OC**

Organic Chemical

**DBP**

Disinfection Byproduct

**M**

Microorganism

**R**

Radionuclide