

Toward a Global Drinking Water Quality Standard

Inorganics - mg/L

	BST	WHO	EPA	Canada	EEC	S. Africa	UN	Taiwan	CCL	China	Czech Rep.	EPA Method
Ammonia	0.3	1.5			0.5	1.5					0.01	4500
Bromate	0.02	25			0.01	0.025						300.0
Bromide	0.02											"
Chlorate	0.02	NAD										"
Chloride	2	250	250	250	250	250		250			100	"
Chlorite	0.02	200				0.2						"
Fluoride	0.2	1.5	4	1.5	1.5	1		0.8		1	1.5	"
Hardness	0.2			x	>60 (as Ca)	20-300		300		450	0.9 - 5 mmol/l	2340B
Iodine		NAD										345.1
Nitrate (as NO ₃ -)	0.2	50	10	10	50	10		10		20	50	300.0
Nitrite (as NO ₂ -)	0.1	3	1	3.2	0.5	1					0.1	353.2
Sulfate	0.5	250	250	500	250	200		250			250	300.0
DBPs - ug/L												
Bromochloroacetonitrile	0.5	NAD										551.1
Chloral hydrate	0.5	10										"
Chlorinated acetic acids												552.2
Dichloroacetic acid	1	50										"
Monochloroacetic acid	2	NAD										"
Trichloroacetic acid	1	100										"
Chloropicrin	0.5	NAD										551.1
Dibromoacetonitrile	0.5	100										"
Dichloroacetonitrile	0.5	90										551.1
Nitritotriacetic acid	x	200		400								430.2
Trichloroacetonitrile	0.5	1										551.1

EHL-I301

Metals - mg/L

	BST	WHO	EPA	Canada	EEC	S. Africa	UN	Taiwan	CCL	China	Czech Rep.	EPA Method
Aluminum	0.001	0.2	0.2 - .05		0.2	0.2					0.2	200.8
Antimony	0.001	0.005	0.006		0.005	0.005						"
Arsenic	0.001	0.01	0.05	0.025	0.01	0.01		0.05		0.05	0.05	"
Barium	0.001	0.7	2	1		0.7						"
Beryllium	0.001	NAD	0.004									"
Boron	0.001	0.3		5	1	0.3						"
Cadmium	0.001	0.003	0.005	0.005	0.005	0.01		0.01		0.01	0.005	"
Chromium	0.001	0.05	0.1	0.05	0.05	0.05		0.05				"
Copper	0.001	1	1 (AL)	1	2	0.5		1			0.1	"
Iron	0.001	0.3	0.3	0.3	0.2	0.2		0.3			0.3	3111B
Lead	0.0001	0.01	0.015 (AL)	0.01	0.01	0.05		0.05		0.05	0.05	200.8
Manganese	0.001	0.1	0.05	0.05	0.05	0.05		0.05			0.1	"
Mercury (total)	0.0001	0.001	0.002	0.001	0.001	0.005		0.002		0.001	0.001	"
Molybdenum	0.001	0.07				0.07						"
Nickel	0.001	0.02	0.1		0.02	0.02						"
Selenium	0.002	0.01	0.05	0.01	0.01	0.02		0.01				"
Silver	0.001	U	0.1	0.05	0.01	0.1		0.05				"
Sodium	0.1	200		200	200	100						3111B
Tin	0.001	U										200.8
Uranium	0.001	NAD		0.1								"
Vanadium	0.001											"
Zinc	0.001	3	5	5		1		5			5	"
Plus 42 additional analytes												"
Radiological												
Gross alpha activity		0.1 Bq/L	15 pCi/L								0.1 Bq/l	900.0
Gross beta activity		1 Bq/L									1.0 Bq/l	"
Total alpha / beta activity										0.11 Bq/l		"

EHL-M201

SOCs - ug/L

	BST	WHO	EPA	Canada	EEC	S. Africa	UN	Taiwan	CCL	China	Czech Rep.	EPA Method
2,4,5-T	0.5	9										515.1
2,4-D	0.5	30	70	100				100				"
2,4-DB	0.5	90										"
Acrylamide	5	0.5			0.1							8316
Aldicarb	1	10	3	9								531.1
Bentazon	0.5	30										515.1
Carbofuran	1	5	40	90								531.1
Chlorophenols										0.002 mg/l		604
2,4,6-Trichlorophenol	0.5	2-300		5								"
2,4-Dichlorophenol	0.5	0.3-40		900								"
2-Chlorophenol	0.5	0.1-10										"
Chlorotoluron	0.5	30										ASTM D4861
DCPA-Acid	0.5											515.1
Dichlorprop	0.5	100										No Method
2,4-Dinitrophenol	0.5											604
Diuron	0.5			150								632
Fenoprop (Silvex) 2,4,5-TP	0.5	9	50									515.1
Isoproturon	0.5	9										242.4 (FDA)
Linuron	0.5											632
MCPA	0.5	2										555
MCPB-Acid	1	NAD										221.1
Mecoprop	0.5	10										555
Pentachlorophenol	0.5	9	1	60				5				515.1
Plus 69 additional analytes												

EHL-L131

SOCs - ug/L

	BST	WHO	EPA	Canada	EEC	S. Africa	UN	Taiwan	CCL	China	Czech Rep.	EPA Method
Acetochlor	0.1											242.1
Alachlor	0.1	20	2									525.2
Aldrin	0.1	0.03		0.7				3				"
PCBs (Aroclor 1016 - 1260)	0.1 - 5.0											505
Atrazine	0.1	2	3	5								525.2
Chlordane	0.05	0.2	2									505
Chlordecone												No Method
4,4-DDE	0.1											525.2
DDT	0.1	2		3				1		1		"
Dialkyltins		NAD										No Method
Di(2-ethylhexyl)adipate	1	80	400									525.2
Di(2-ethylhexyl)phthalate	1	8	6									"
Diazinon	0.1			20								"
Dieldrin	0.1	0.03		0.7				3				"
2,4-Dinitrotoluene	0.1											"
2,6-Dinitrotoluene	0.1											"
Disulfoton	0.1											"
Dyfonate	0.1											No Method
Endosulfan	0.1							3				525.2
Endrin	0.1		2	0.2				0.2				"
EPTC	0.1											"
Heptachlor	0.1	0.03	0.4	3				1				"
Heptachlor epoxide	0.1	0.03	0.2	3				1				"
Hexachlorobenzene	0.1	1	1									"
Hexachlorocyclohexanes												No Method
Hexabromobiphenyl												No Method
Lindane	0.1	2	0.2	4				4				525.2
Methoxychlor	0.1	20	4	900								"
Metolachlor	0.1	10		50								"
Metribuzin	0.1			80								"
Mirex	0.5											"
Molinate	0.1	6										"
MX *		NAD										No Method
PAHs - 12 analytes												525.2
Benzo[a]pyrene	0.1	0.7	0.2	0.01	0.01							"
Benzo[b]fluoranthene	0.1				0.1							"
Benzo[k]fluoranthene	0.1				0.1							"
Benzo[g,h,i]perylene	0.1				0.1							"
Indeno[1,2,3-cd]pyrene	0.1				0.1							"
Pendimethalin	0.1	20										8091
Permethrin (cis,trans)	0.1	20										525.2
Prometon	0.1											"
Propanil	0.1	20										632.1
Pyridate		100										No Method
Simazine	0.1	2	4	10								525.2
2,3,7,8-TCDD (Dioxin)			3x10-5									1613
Terbacil	0.1											525.2
Terbufos	0.1			1								"
Toxaphene	10		3					5				505
Tributyltin oxide		2										No Method
Trifuralin	0.1	20										525.2
Plus 128 additional analytes												

EHL-S125

Volatiles - ug/L

	BST	WHO	EPA	Canada	EEC	S. Africa	UN	Taiwan	CCL	China	Czech Rep.	EPA Method
Benzene	0.5	10	5	5	1			5				524.2
Bromobenzene	0.2											"
Bromomethane	0.5											"
Carbon tetrachloride	0.1	2	5	5				5		3		"
Chloroacetone		NAD										"
Cyanogen chloride		70										4500
1,2-Dibromo-3-chloropropane	0.2	1	0.2									504.1
1,2-Dichlorobenzene	0.1	1-10	600	200								524.2
1,3-Dichlorobenzene	0.1	NAD	600									"
1,4-Dichlorobenzene	0.1	0.3-30	75									"
1,1-Dichloroethane	0.1	NAD										"
1,2-Dichloroethane,	0.1	30	5	5	3			5				"
1,1,1-Dichloroethene	0.2	30	7					7				"
1,2-Dichloroethene (cis)	0.1	50	70									"
Dichloromethane	0.5	20	5	50								"
1,2-Dichloropropane	0.1	20	5									"
1,3-Dichloropropane,	0.1	NAD										"
2,2-Dichloropropane	0.2											"
1,3-Dichloropropene	0.1	20										"
1,1,1-Dichloropropylene	0.1											"
Epichlorohydrin	1	0.4			0.1							8240 B
Ethylbenzene	0.1	2-200	700	2.4								524.2
Ethylene dibromide (EDB)	0.1	NAD	0.05									504.1
Hexachlorobutadiene	0.2	0.6										524.2
Methyl-t-butyl ether (MTBE)	0.5		* 20-40									"
Monochlorobenzene	0.2	10-120	100									"
Naphthalene	0.2											"
Nitrobenzene	5											"
Styrene	0.2	20	100									"
1,1,1,2,2-Tetrachloroethane	0.1											"
Tetrachloroethene	0.2	40	5		10							"
Toluene	0.5	24-170	1000	2.4								"
Trichlorobenzenes (total)	0.2	5-50	70									"
1,1,1-Trichloroethane	0.1	2000	200					200				"
Trichloroethene	0.1	70	5					5				"
Trihalomethanes			100	100	100			100				"
Bromodichloromethane	0.1	60				60						"
Bromoform	0.1	100				100						"
Chloroform	0.1	200				200			60			"
Dibromochloromethane	0.1	100				100						"
1,2,4-Trimethylbenzene	0.1											"
Vinyl chloride	0.2	5	2	2	0.5			2				"
Xylenes, Total	0.2	20-1800	10000	300								"
Plus 52 additional analytes												

EHL-V124

Physical Parameters	BST	WHO	EPA	Canada	EEC	S. Africa	UN	Taiwan	CCL	China	Czech Rep.	EPA Method
Total dissolved solids	10 mg/L	1000 mg/L	500 mg/L	500 mg/L				500 mg/L		1000 mg/l	1000 mg/l	2540 C
Taste and Odor			3 TON								2	140.1
Temperature				15 ° C-							8 - 12°C	120.1
Turbidity	0.1 NTU	5 NTU	1 NTU	1 NTU		0.5 NTU		4 NTU		<3*	5 ZF	180.1
Additional Parameters												
Asbestos		U	7 mf/L									2570B
Chlorine	0.1 mg/L	5 mg/L				0.1-2.5 mg/L		0.2-0.8 mg/L			>0.05-0.5 mg/l	4500-C1 G
Chlorine dioxide		NAD										4500-C1O2
Color	5 TCU	15 TCU	15 TCU	15 TCU				15 TCU		<15 ^a	20	2120-B
Cyanide	0.02 mg/L	0.07 mg/L	0.2 mg/L	0.2 mg/L	0.05 mg/L			0.01 mg/L		0.05 mg/l	0.01 mg/l	335.4
Di and trichloramine		NAD										4500-C1 G
Monochloramine		3 mg/L										"
Dissolved oxygen											>50 % saturation	360.1
Edetic acid (EDTA)		0.2 mg/L										3113
Formaldehyde	5 mg/L	0.9 mg/L										6252
Hydrogen Sulfide	0.1 mg/L	0.05 mg/L									0.01 mg/l	4500-S2A4C
pH	0.1	<8.0	6.5-8.5	6.5-8.5		6 - 9.5		6.5-8.5		6.5-8.5	6 - 8	150.1
Synthetic detergents												5540-C
Microbiological												
Acanthamoebal												
Adenoviruses												
Aeromonas hydrophila												
Caliciviruses												
Coxsackieviruses												
Cyanobacteria												
E-Coli	1 cfu	ND			0 cfu							9223
Echoviruses												
Helicobacter pylori												
Microsporidia												
Mycobacterium avium intracellulare (MAC)												
Total Coliform	1 cfu	ND		10 cfu				<1 cfu		3 U/ml	0 cfu	9222 B

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Revised November 1999

- 1 EHL = Environmental Health Laboratories Broad Spectrum Test
- 2 US EPA = United States Environmental Protection Agency Regulated Analytes July 17, 1996
- 3 US EPA = United States Environmental Protection Agency Secondary or Unregulated Analytes July 17, 1996
- 4 WHO = World Health Organization 1993
- 5 Canada = Canadian Drinking Water Quality Guidelines April 1996
- 6 Taiwan, Taipei Drinking Water Regulations June 25, 1996
- 7 EEC = European Economic Community June 25, 1996
- 8 UN = United Nations June 1996
- 9 CCL = US EPA Contaminant Candidate List March 2, 1998
- 10 South Africa, Umgeni 1998
- 11 China April, 1999
- 12 Czech Republic IWSA World Water Congress International Report 1999

ND = Not detected in 100 ml sample

NAD - No Adequate Data to permit recommendation of a health-based guideline value.

U = It is unnecessary to recommend a health-based guideline value for these compounds because they are not hazardous to human health at concentrations normally found in drinking water.

Under investigation for possible inclusion into our broad spectrum test.

mf/L = Million fibers per liter

cfu = Colony Forming Unit per 100 ml.

NTU = Nephelometric Turbidity Unit

TCU = True Color Unit

AL = Action Limits for the 90th percentile of samples collected by public water supplies.

Bq/L = becquerels per liter

MX * = 3-chloro-4-dichloromethyl-5-hydroxy-2(5H)-furanone

*a = light absorption of water.

*b = measure light retraction, which indicates size and number of particles.

*c = No values are specific for nitrites and ammonium.

* MTBE - Data taken from Chemical Engineering / February 1998

EHL-S125 - Gas Chromatography/Mass Spectrometry (GC/MS)

EHL-L131 - Liquid Chromatography Photodiode Array (LC/PDA); Mass Spectrometry under development (LC/MS)

EHL-V124 - Gas Chromatography/Mass Spectrometry (GC/MS)

EHL-M201 - Inductively Coupled Plasma/Mass Spectrometry (ICP/MS)

EHL-I301 - Ion Chromatography (IC); Capillary Electrophoresis/Mass Spectrometry under development (CE/MS)