

**Extracto del Documento *Drinking Water Standards and Health Advisories*  
EPA 822-B-00-001, Summer 2000**

Chemicals	Health Advisories						Cancer Group
	10-kg Child						
	One-day (mg/L)	Ten-day (mg/L)	RfD (mg/kg/day)	DWEL (mg/L)	Lifetime (mg/L)	mg/L at 10 <sup>-4</sup> Cancer Risk	
ORGANICS							
Acenaphthene	-	-	0.06	2	-	-	-
Acifluorfen (sodium)	2	2	0.01	0.4	-	0.1	B2
Acrylamide	1.5	0.3	0.0002	0.007	-	0.001	B2
Acrylonitrile	-	-	-	-	-	0.006	B1
Alachlor	0.1	0.1	0.01	0.4	-	0.04 <sup>2</sup>	B2
Aldicarb <sup>3</sup>	0.01	0.01	0.001	0.04	0.007	-	D
Aldicarb sulfone <sup>3</sup>	0.01	0.01	0.001	0.04	0.007	-	D
Aldicarb sulfoxide <sup>3</sup>	0.01	0.01	0.001	0.04	0.007	-	D
Aldrin	0.0003	0.0003	0.00003	0.001	-	0.0002	B2
Ametryn	9	9	0.009	0.3	0.06	-	D
Ammonium sulfamate	20	20	0.2	8	2	-	D
Anthracene (PAH) <sup>5</sup>	-	-	0.3	10	-	-	D
Atrazine <sup>6</sup>	-	-	0.035	1	0.2	-	C
Baygon	0.04	0.04	0.004	0.1	0.003	-	C
Bentazon	0.3	0.3	0.03	1	0.2	-	E
Benz[a]anthracene (PAH)	-	-	-	-	-	-	B2
Benzene	0.2	0.2	-	-	-	0.1	A
Benzo[a]pyrene (PAH)	-	-	-	-	-	0.002	B2
Benzo[b]fluoranthene (PAH)	-	-	-	-	-	-	B2
Benzo[g,h,i]perylene (PAH)	-	-	-	-	-	-	D
Benzo[k]fluoranthene (PAH)	-	-	-	-	-	-	B2
bis-2-Chloroisopropyl ether	4	4	0.04	1	0.3	-	D
Bromacil	5	5	0.1	5	0.09	-	C
Bromobenzene	4	4	-	-	-	-	D
Bromochloromethane	50	1	0.01	0.5	0.09	-	D
Bromodichloromethane (THM)	6	6	0.02	0.7	-	0.06	B2
Bromoform (THM)	5	2	0.02	0.7	-	0.4	B2
Bromomethane	0.1	0.1	0.001	0.05	0.01	-	D
Butyl benzyl phthalate (PAE) <sup>2</sup>	-	-	0.2	7	-	-	C
Butylate	2	2	0.05	2	0.4	-	D
Carbaryl	1	1	0.1	4	0.7	-	D
Carbofuran <sup>3</sup>	0.05	0.05	0.005	0.2	0.04	-	E
Carbon tetrachloride	4	0.2	0.0007	0.03	-	0.03	B2
Carboxin	1	1	0.1	4	0.7	-	D
Chloramben	3	3	0.015	0.5	0.1	-	D
Chlordane	0.06	0.06	0.0005	0.02	-	0.001	B2
Chloroform (THM)	4	4	0.01	0.4	-	0.6	B2
Chloromethane	9	0.4	0.004	0.1	0.003	-	C
Chlorophenol (2-)	0.5	0.5	0.005	0.2	0.04	-	D
p-Chlorophenyl methyl sulfide/sulfone/sulfoxide	-	-	-	-	-	-	D
Chlorothalonil	0.2	0.2	0.015	0.5	-	0.15	B2
Chlorotoluene o-	2	2	0.02	0.7	0.1	-	D
Chlorotoluene p-	2	2	0.02	0.7	0.1	-	D
Chlorpyrifos	0.03	0.03	0.003	0.1	0.02	-	D
Chrysene (PAH)	-	-	-	-	-	-	B2
Cyanazine	0.1	0.1	0.002	0.07	0.001	-	-

Chemicals	Health Advisories						Cancer Group
	10-kg Child						
	One-day (mg/L)	Ten-day (mg/L)	RfD (mg/kg/day)	DWEL (mg/L)	Lifetime (mg/L)	mg/L at 10 <sup>-4</sup> Cancer Risk	
Cyanogen chloride <sup>1</sup>	0.05	0.05	0.05	2	-	-	D
2,4-D (2,4-dichlorophenoxyacetic acid)	1	0.3	0.01	0.4	0.07	-	D
DCPA (Dacthal)	80	80	0.01	0.4	0.07	-	D
Dalapon (sodium salt)	3	3	0.03	0.9	0.2	-	D
Di(2-ethylhexyl)adipate	20	20	0.6	20	0.4	3	C
Di(2-ethylhexyl)phthalate (PAE)	-	-	0.02	0.7	-	0.3	B2
Diazinon	0.02	0.02	0.00009	0.003	0.0006	-	E
Dibromochloromomethane (THM)	6	6	0.02	0.7	0.06	0.04	C
Dibromochloropropane (DBCP)	0.2	0.05	-	-	-	0.003	B2
Dibutyl phthalate (PAE)	-	-	0.1	4	-	-	D
Dicamba	0.3	0.3	0.03	1	0.2	-	D
Dichloroacetic acid	5	5	0.004	0.1	-	<sup>4</sup>	B2
Dichlorobenzene o-	9	9	0.09	3	0.6	-	D
Dichlorobenzene m- <sup>5</sup>	9	9	0.09	3	0.6	-	D
Dichlorobenzene p-	11	11	0.1	4	0.075	-	C
Dichlorodifluoromethane	40	40	0.2	5	1	-	D
Dichloroethylene (1,1-)	2	1	0.01	0.4	0.007	-	C
Dichloroethane (1,2-)	0.7	0.7	-	-	-	0.04	B2
Dichloroethylene (cis-1,2-)	4	1	0.01	0.4	0.07	-	D
Dichloroethylene (trans-1,2-)	20	1	0.02	0.7	0.1	-	D
Dichloromethane	10	2	0.06	2	-	0.5	B2
Dichlorophenol (2,4-)	0.03	0.03	0.003	0.1	0.02	-	E
Dichloropropane (1,2-)	-	0.09	-	-	-	0.06	B2
Dichloropropene (1,3-)	0.03	0.03	0.03	1	-	0.04	B2
Dieldrin	0.0005	0.0005	0.00005	0.002	-	0.0002	B2
Diethyl phthalate (PAE)	-	-	0.8	30	-	-	D
Diisopropyl methylphosphonate	8	8	0.08	3	0.6	-	D
Dimethrin	10	10	0.3	10	2	-	D
Dimethyl methylphosphonate	2	2	0.2	7	0.1	0.7	C
Dimethyl phthalate (PAE)	-	-	-	-	-	-	D
Dinitrobenzene (1,3-)	0.04	0.04	0.0001	0.005	0.001	-	D
Dinitrotoluene (2,4-)	0.50	0.50	0.002	0.1	-	0.005	B2
Dinitrotoluene (2,6-)	0.40	0.40	0.001	0.04	-	0.005	B2
Dinitrotoluene (2,6 & 2,4) <sup>1</sup>	-	-	-	-	-	0.005	B2
Dinoseb	0.3	0.3	0.001	0.04	0.007	-	D
Dioxane p-	4	0.4	-	-	-	0.3	B2
Diphenamid	0.3	0.3	0.03	1	0.2	-	D
Diquat	-	-	0.002	0.07	-	-	D
Disulfoton	0.01	0.01	0.00004	0.001	0.0003	-	E
Dithiane (1,4-)	0.4	0.4	0.01	0.4	0.08	-	D
Diuron	1	1	0.002 <sup>2</sup>	0.07	0.01	-	D
Endothall	0.8	0.8	0.02	0.7	0.1	-	D
Endrin	0.02	0.005	0.0003	0.01	0.002	-	D
Epichlorohydrin	0.1	0.1	0.002	0.07	-	0.4	B2
Ethylbenzene	30	3	0.1	3	0.7	-	D
Ethylene dibromide (EDB) <sup>4</sup>	0.008	0.008	-	-	-	0.00005	B2
Ethylene glycol	20	6	2	70	14	-	D
Ethylene Thiourea (ETU)	0.3	0.3	0.00008	0.003	-	0.02	B2
Fenamiphos	0.009	0.009	0.00025	0.009	0.002	-	D

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	One- day (mg/L)	Ten- day (mg/L)					
Fluometuron	2	2	0.01	0.5	0.09		D
Fluorene (PAH)	-	-	0.04	1	-	-	D
Fonofos	0.02	0.02	0.002	0.07	0.01	-	D
Formaldehyde	10	5	0.15	5	1	-	B1 <sup>1</sup>
Glyphosate	20	20	0.1 <sup>2</sup>	4	0.7	-	D
Heptachlor	0.01	0.01	0.0005	0.02	-	0.0008	B2
Heptachlor epoxide	0.01	-	0.00001	0.0004	-	0.0004	B2
Hexachlorobenzene	0.05	0.05	0.0008	0.03	-	0.002	B2
Hexachlorobutadiene	0.3	0.3	0.002	0.07	0.001	0.05	C
Hexachlorocyclopentadiene	-	-	0.007	0.2	-	-	D
Hexachloroethane	5	5	0.001	0.04	0.001	-	C
Hexane (n-)	10	4	-	-	-	-	D
Hexazinone	3	2	0.05 <sup>3</sup>	2	0.4	-	D
HMX <sup>4</sup>	5	5	0.05	2	0.4	-	D
Indeno[1,2,3,-c,d]pyrene (PAH)	-	-	-	-	-	-	B2
Isophorone	15	15	0.2	7	0.1	4	C
Isopropyl methylphosphonate	30	30	0.1	4	0.7	-	D
Isopropylbenzene (cumene)	11	11	0.1	4	-	-	D
Lindane <sup>5</sup>	1	1	0.0003	0.01	0.0002	-	C
Malathion	0.2	0.2	0.02	0.8	0.1	-	D
Maleic hydrazide	10	10	0.5	20	4	-	D
MCPA <sup>6</sup>	0.1	0.1	0.0005 <sup>7</sup>	0.02	0.004	-	D
Methomyl	0.3	0.3	0.025	0.9	0.2	-	E
Methoxychlor	0.05	0.05	<b>0.005</b>	0.2	0.04	-	D
Methyl ethyl ketone	75	7.5	<b>0.6</b>	20	-	-	D
Methyl parathion	0.3	0.3	0.00025	0.009	0.002	-	D
Metolachlor	2	2	<b>0.15<sup>1</sup></b>	0.5	0.1	-	C
Metribuzin	5	5	0.025 <sup>2</sup>	0.9	0.2	-	D
Monochloroacetic acid	-	-	-	-	-	-	-
Monochlorobenzene	4	4	<b>0.02</b>	0.7	0.1	-	D
Naphthalene	0.5	0.5	<b>0.02</b>	0.7	0.1	-	C
Nitrocellulose (non-toxic)	-	-	-	-	-	-	-
Nitroguanidine	10	10	0.1	4	0.7	-	D
Nitrophenol p-	0.8	0.8	0.008	0.3	0.06	-	D
Oxamyl (Vydate)	0.2	0.2	0.025	0.9	0.2	-	E
Paraquat	0.1	0.1	0.0045	0.2	0.03	-	C
Pentachlorophenol	1	0.3	0.03	1	-	0.03	B2
Phenanthrene (PAH)	-	-	-	-	-	-	D
Phenol	6	6	0.6	20	4	-	D
Picloram	20	20	0.07 <sup>4</sup>	2	0.5	-	D
Polychlorinated biphenyls (PCBs)	-	-	-	-	-	0.01	B2
Prometon <sup>5</sup>	0.2	0.2	0.015	0.5	0.1	-	D
Pronamide	0.8	0.8	0.075	3	0.05	-	C
Propachlor	0.5	0.5	0.01	0.5	0.09	-	D
Propazine	1	1	0.02	0.7	0.01	-	C
Propham	5	5	0.02	0.6	0.1	-	D
Pyrene (PAH)	-	-	0.03	-	-	-	D
RDX <sup>6</sup>	0.1	0.1	0.003	0.1	0.002	0.03	C
Simazine	0.5	0.5	0.005	0.2	0.004	-	C
Styrene	20	2	0.2	7	0.1	-	C
2,4,5-T (Trichlorophenoxyacetic acid)	0.8	0.8	0.01	0.4	0.07	-	D



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2,3,7,8-TCDD (Dioxin)	1E-06	1E-07	1E-09	4E-08	-	2E-08	B2
Tebuthiuron	3	3	0.07	2	0.5	-	D
Terbacil	0.3	0.3	0.01	0.4	0.09	-	E
Terbufos	0.005	0.005	0.0001	0.005	0.0009	-	D
Tetrachloroethane (1,1,1,2-)	2	2	0.03	1	0.07	0.1	C
Tetrachloroethane (1,1,2,2-)	0.04	0.04	0.00005	0.002	0.0003	0.02	C
Tetrachloroethylene	2	2	0.01	0.5	0.01	-	-
Trichlorofluoromethane	7	7	0.3	10	2	-	D
Toluene	20	2	0.2	7	1	-	D
Toxaphene	0.004	0.004	0.0004	0.01	-	0.003	B2
2,4,5-TP (Silvex)	0.2	0.2	0.008	0.3	0.05	-	D
Trichloroacetic acid	4	4	0.1	4.0	0.3	-	C
Trichlorobenzene (1,2,4-)	0.1	0.1	0.001	0.05	0.01	-	D
Trichlorobenzene (1,3,5-)	0.6	0.6	0.006	0.2	0.04	-	D
Trichloroethane (1,1,1-)	100	40	0.035	1	0.2	-	D
Trichloroethane (1,1,2-)	0.6	0.4	0.004	0.1	0.003	0.06	C
Trichloroethylene <sup>2</sup>	-	-	0.007	0.2	-	0.2	B2
Trichlorophenol (2,4,6-)	0.03	0.03	0.0003	0.01	-	0.3	B2
Trichloropropane (1,2,3-)	0.6	0.6	0.006	0.2	0.04	-	-
Trifluralin	0.08	0.08	0.0075	0.3	0.005	0.5	C
Trimethylbenzene (1,2,4-)	-	-	-	-	-	-	D
Trimethylbenzene (1,3,5-)	10	-	-	-	-	-	D
Trinitroglycerol	0.005	0.005	-	-	0.005	0.2	-
Trinitrotoluene (2,4,6-)	0.02	0.02	0.0005	0.02	0.002	0.1	C
Vinyl chloride <sup>2</sup>	3	3	-	-	-	0.002	A
Xylenes	40	40	2	70	10	-	D
INORGANICS							
Ammonia	-	-	-	-	30	-	D
Antimony	0.01	0.01	0.0004	0.01	0.006	-	D
Arsenic	-	-	-	-	-	0.002	A
Asbestos (fibers/l >10µm length)	-	-	-	-	-	700 MFL	A <sup>2</sup>
Barium	0.7	0.7	0.07	2	2	-	D
Beryllium	30	30	0.002	0.07	-	-	-
Boron <sup>3</sup>	4	0.9	0.09	3	0.6	-	D
Bromate	0.2	-	-	-	-	0.005	B2
Cadmium	0.04	0.04	0.0005	0.02	0.005	-	D
Chloramine <sup>4</sup>	1	1	0.1	3.5	3.0	-	-
Chlorine	3	3	0.1	5	4	-	D
Chlorine dioxide	0.84	0.84	0.03	1	0.8	-	D
Chlorite	0.84	0.84	0.03	1	0.8	-	D
Chromium (total)	1	1	0.003 <sup>6</sup>	0.1	-	-	D
Copper (at tap)	-	-	-	-	-	-	D
Cyanide	0.2	0.2	0.02 <sup>8</sup>	0.8	0.2	-	D
Fluoride	-	-	0.06 <sup>9</sup>	-	-	-	-
Lead (at tap)	-	-	-	-	-	-	B2
Manganese	-	-	0.14 <sup>10</sup>	-	-	-	-
Mercury (inorganic)	0.002	0.002	0.0003	0.01	0.002	-	D
Molybdenum	0.08	0.08	0.005	0.2	0.04	-	D
Nickel	1	1	0.02	0.7	0.1	-	-

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Nitrate (as N)	10 <sup>1</sup>	10 <sup>1</sup>	1.6	-	-	-	-
Nitrite (as N)	1 <sup>1</sup>	1 <sup>1</sup>	0.16	-	-	-	-
Nitrate + Nitrite (both as N)	-	-	-	-	-	-	-
Selenium	-	-	0.005	0.2	0.05	-	D
Silver	0.2	0.2	0.005 <sup>2</sup>	0.2	0.1	-	D
Strontium	25	25	<b>0.6</b>	20	4	-	D
Thallium	0.007	0.007	0.00007	0.002	0.0005	-	-
White phosphorous	-	-	0.00002	0.0005	0.0001	-	D
Zinc	6	6	0.3	10	2	-	D
<b>RADIONUCLIDES</b>							
Beta particle and photon activity (formerly man-made radionuclides) <sup>3</sup>	-	-	-	-	-	4 mrem/y	A
Gross alpha particle activity <sup>3</sup>	-	-	-	-	-	15 pCi/L	A
Combined Radium 226 & 228 <sup>3</sup>	-	-	-	-	-	-	A
Radon <sup>3</sup>	-	-	-	-	-	150 pCi/L	A
Uranium <sup>3</sup>	-	-	0.003	-	-	-	A

## DEFINITIONS:

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. For lead or copper it is the level which, if exceeded in over 10% of the homes tested, triggers treatment.

**Cancer Group:** A qualitative weight-of-evidence judgement as to the likelihood that a chemical may be a carcinogen for humans. Each chemical is placed into one of the following five categories:

Group	Category
A	Human carcinogen
B	Probable human carcinogen: B1 indicates limited human evidence; B2 indicates sufficient evidence in animals and inadequate or no evidence in humans
C	Possible human carcinogen
D	Not classifiable as to human carcinogenicity
E	Evidence of noncarcinogenicity for humans

This categorization is based on EPA's 1986 *Guidelines for Carcinogen Risk Assessment*. The *Proposed Guidelines for Carcinogen Risk Assessment* which were published in 1996, when final, will replace the 1986 cancer guidelines.

**10<sup>-4</sup> Cancer Risk:** The concentration of a chemical in drinking water corresponding to an estimated lifetime cancer risk of 1 in 10,000.

**DWEL:** Drinking Water Equivalent Level. A lifetime exposure concentration protective of adverse, non-cancer health effects, that assumes all of the exposure to a contaminant is from drinking water.

**HA:** Health Advisory. An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a Health Advisory is not a legally enforceable Federal standard, but serves as technical guidance to assist Federal, state, and local officials.

**One-day HA:** The concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for up to one day of exposure.

**Ten-day HA:** The concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for up to ten days of exposure.

**Lifetime HA:** The concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for a lifetime of exposure.

**LED<sub>10</sub>:** Lower Limit on Effective Dose<sub>10</sub>. The 95% lower confidence limit of the dose of a chemical needed to produce an adverse effect in 10% of those exposed to the chemical, relative to the control.

**MCLG:** Maximum Contaminant Level Goal. A non-enforceable health goal which is set at a level at which no known or anticipated adverse effect on the health of persons occur and which allows an adequate margin of safety.

**MCL:** Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.

**RfD:** Reference Dose. An estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime.

**SDWR:** Secondary Drinking Water Regulations. Non-enforceable Federal guidelines regarding cosmetic effects (such as tooth or skin discoloration) or aesthetic effects (such as taste, odor, or color) of drinking water.

**TT:** Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

#### **ABBREVIATIONS**

D	Draft
F	Final
NA	Not Applicable
NOAEL	No-Observed-Adverse-Effect-Level
OPP	Office of Pesticide Programs
P	Proposed
Reg	Regulation
TT	Treatment Technique