

Table 4B Pathway Specific Standards for Residential Soil (mg/kg)

Land Use / Receptor	Residential Land Use					
	Pathway	Soil Contact / Ingestion	Inhalation of Indoor Air		Leaching to Potable Groundwater	
			Coarse / Fine	Fine	Coarse	Fine
Parameter	Coarse / Fine	Fine	Coarse	Fine	Coarse	
Inorganic Parameters						
Aluminum	15,400	-	-	-	-	
Antimony	7.5	-	-	-	-	
Arsenic	31	-	-	-	-	
Barium	10,000	-	-	-	-	
Beryllium	38	-	-	-	-	
Boron (Total)	4,300	-	-	-	-	
Boron (Hot Water Soluble)	-	-	-	-	-	
Cadmium	14	-	-	-	-	
Chromium (hexavalent)	160	-	-	-	-	
Chromium (total)	220	-	-	-	-	
Cobalt	22	-	-	-	-	
Copper	1,100	-	-	-	-	
Cyanide	29	-	-	-	-	
Iron	11,000	-	-	-	-	
Lead	140	-	-	-	-	
Manganese	-	-	-	-	-	
Mercury (total)	6.6	-	-	-	-	
Methylmercury	1.6	-	-	-	-	
Molybdenum	110	-	-	-	-	
Nickel	330	-	-	-	-	
Selenium	80	-	-	-	-	
Silver	77	-	-	-	-	
Strontium	9,400	-	-	-	-	
Thallium	1	-	-	-	-	
Tin	9,400	-	-	-	-	
Uranium	23	-	-	-	-	
Vanadium	39	-	-	-	-	
Zinc	5,600	-	-	-	-	
Petroleum Hydrocarbons (PHC) Parameters						
Benzene	66	2.3	0.099	0.094	0.042	
Toluene	20,000	>RES	77	0.74	0.35	
Ethylbenzene	9,300	>RES	30	0.13	0.065	
Xylene	140,000	210	8.8	22	11	
Modified TPH (Gas)	15,000	2,100	74	1,900	940	
Modified TPH (Fuel)	8,600	10,000	270	4,700	1,800	
Modified TPH (Lube)	14,000	60,000	1,100	>RES	15,000	
MTBE	380	1.1	0.05	0.05	0.062	
Polycyclic Aromatic Hydrocarbons (PAH) Parameters						
Non-Carcinogenic PAH Compounds						
Naphthalene	1,800	51	2.2	28	53	
1 - Methylnaphthalene	72	-	-	42	30	
2 - Methylnaphthalene	72	-	-	42	30	
Acenaphthene	5,300	99,000	3,900	-	-	
Acenaphthylene	78	33	4.5	32	23	
Anthracene	24,000	-	670,000	-	-	
Fluoranthene	3,500	-	480,000	-	-	
Fluorene	2,700	220,000	8,600	-	-	
Phenanthrene	-	-	-	17	17	
Pyrene	2,100	-	730,000	-	-	
Carcinogenic PAH Compounds						
BaP Total Potency Equivalents	5.3	-	-	IACR<1	IACR<1	

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Parameter	Coarse / Fine	Fine	Coarse	Fine	Coarse	
Benz[a]anthracene	-	-	-	-	-	
Benzo[a]pyrene	-	-	-	-	-	
Benzo[b,j,k]fluoranthene isomers	-	-	-	-	-	
Benzo[g,h,i]perylene	-	-	-	-	-	
Chrysene	-	-	-	-	-	
Dibenz[a,h]anthracene	-	-	-	-	-	
Indeno[1,2,3-c,d]pyrene	-	-	-	-	-	
Volatile Organic Compound (VOC) Parameters						
Bromodichloromethane	130	-	-	1.9	1.5	
Bromoform	1,000	2.6	2.7	2.9	2.3	
Bromomethane	6.3	0.05	0.05	0.1	0.097	
Carbon Tetrachloride (Tetrachloromethane)	27	0.05	0.05	0.092	0.16	
Chlorobenzene	16,000	0.39	0.05	0.61	1.1	
Chloroethane	-	0	0	-	-	
Chloroform	220	0.05	0.05	0.05	0.05	
Chloromethane	-	-	-	-	-	
Dibromochloromethane	760	7.8	0.27	0.91	1.5	
1,2-Dichlorobenzene	16,000	230	10	0.097	0.18	
1,3-Dichlorobenzene	420	-	-	34	24	
1,4-Dichlorobenzene	4,200	14	0.67	0.051	0.098	
1,1-Dichloroethane	840	31	3.5	0.6	0.47	
1,2-Dichloroethane	2,800	0.055	0.05	0.05	0.05	
1,1-Dichloroethylene	1,900	0.46	0.05	0.15	0.24	
cis-1,2-Dichloroethylene	630	30	3.4	2.5	1.9	
trans-1,2-Dichloroethylene	420	0.75	0.084	2.5	1.9	
1,2-Dichloropropane	220	0.085	0.05	0.74	0.54	
1,3-Dichloropropene	1.7	-	-	-	-	
Ethylene Dibromide	2.2	0.05	0.05	0.05	0.05	
Methylene Chloride (Dichloromethane)	990	16	0.71	0.21	0.32	
Styrene	2,500	19	16	66	47	
1,1,1,2-Tetrachloroethane	40	0.096	0.05	0.19	0.14	
Tetrachloroethylene	530	3.7	0.16	1.6	1.6	
1,1,1-Trichloroethane	42,000	3.4	0.38	27	20	
1,1,1,2-Trichloroethane	140	0.18	0.3	0.73	0.54	
Trichloroethylene	28	3.7	0.36	0.01	0.01	
Vinyl Chloride	71	0.02	0.02	0.02	0.02	
Pesticides						
Aldicarb	22	-	-	0.041	0.065	
Aldrin	3.4	-	-	0.59	11	
Atrazine	11	-	-	0.1	0.19	
Azinphos-methyl	55	-	-	0.41	0.75	
Bendiocarb	89	-	-	0.14	0.21	
Bromoxynil	11	-	-	0.18	0.35	
Carbaryl	220	-	-	1.9	3.6	
Carbofuran	220	-	-	0.68	1.2	
Chlorothalonil	330	-	-	27	53	
Chlorpyrifos	220	-	-	49	95	
Cyanazine	29	-	-	0.12	0.21	
2,4-D	220	-	-	0.43	0.67	
DDT	220	-	-	5,900	11,000	
Diazinon	44	-	-	2.2	4.2	
Dicamba	280	-	-	0.5	0.79	

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Dichlorofop-methyl	22	-	-	12	24	
Dieldrin	3.4	-	-	0.59	1.1	
Dimethoate	44	-	-	0.077	0.12	
Dinoseb	22	-	-	2.8	5.5	
Diquat	180	-	-	11	21	
Diuron	350	-	-	1.9	3.5	
Endosulfan	210	-	-	99	190	
Endrin	10	-	-	2.4	4.7	
Glyphosate	670	-	-	0.95	1.4	
Heptachlor	0.46	0.31	0.21	0.05	0.076	
Lindane	6.7	-	-	0.31	0.6	
Linuron	44	-	-	0.56	1.1	
Malathion	440	-	-	0.82	1.3	
MCPA	11	-	-	0.02	0.32	
Methoxychlor	3,500	-	-	5,700	11,000	
Metolachlor	110	-	-	1.3	2.4	
Metribuzin	180	-	-	7.8	15	
Paraquat	22	-	-	1.1	2.2	
Parathion	110	-	-	7.2	14	
Phorate	4.4	-	-	0.075	0.14	
Picloram	440	-	-	0.64	0.94	
Simazine	29	-	-	0.14	0.25	
Tebuthiuron	1,600	-	-	2.5	3.7	
Terbufos	1.1	-	-	0.08	0.15	
Toxaphene	4.8	-	-	3.3	6.3	
Triallate	290	-	-	16	31	
Trifluralin	110	-	-	35	67	
Other Parameters						
Polychlorinated Biphenyl (Total PCB)	22	190	31	1,100	770	
Dioxins and Furans (TEQ) (mg TEQ/kg)	0.000004	0.017	0.0028	0.0026	0.0018	
Pentachlorophenol (PCP)	93	66,000	66,000	7.6	7.6	
Organotins - Tributyltin	3.6	-	-	-	-	
Ethylene Glycol	73,000	-	86,000	60	68	
Propylene Glycol	-	-	-	-	-	
Phenol	1,900	500	500	3.8	3.8	

Notes:

[1] All values in mg/kg

[2] "-" = No guideline available or no guideline required; >RES means no soil criteria are shown as residual soil saturation limits may be exceeded; IACR means the Index of Additive Cancer Risk

[3] For the purposes of screening human health effects from exposure to sediment, dry weight values should be evaluated against the soil quality standards for Soil Contact/Ingestion only.

[4] Benzo(a)pyrene, BaP, Total Potency Equivalents are to be calculated following methodology shown in "Canadian Council of Ministers of the Environment, 2010 Canadian soil quality guidelines for the protection of environmental and human health: Carcinogenic and Other PAHs."

[5] Dioxins and Furans TEQ, Toxic Equivalents, are to be calculated following methodology shown in "Canadian Council of Ministers of the Environment, 2002. Canadian soil quality guidelines for the protection of environmental and human health: Dioxins and Furans"