

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)		Volatilization Criteria for Soil Vapor (ppm)		Ground Water Protection Criteria (GA and GAA) (µg/L)	Surface Water Protection Criteria (µg/L)	Volatilization Criteria for Ground Water (ppb)	
	Residential	Industrial/ Commercial	GA, GAA Area	GB Area	Residential	Industrial/ Commercial			Residential	Industrial/ Commercial

Volatile Organic Substances

Acetone	500	1,000	14	140	2,400	8,250	700	NC	50,000	50,000
Acrylonitrile	1.1	11	0.01	0.1	NC	NC	0.5	20	NC	NC
Benzene	21	200	0.02	0.2	1	113	1	710	215	530
Bromoform	78	720	0.08	0.8	1.5	6	4	10,800	920	3,800
2-Butanone (MEK)	500	1,000	8	80	2,400	8,285	400	NC	50,000	50,000
Carbon tetrachloride	4.7	44	0.1	1	1	2.7	5	132	16	40
Chlorobenzene	500	1,000	2	20	31	106	100	420,000	1,800	6,150
Chloroform	100	940	0.12	1.2	4.5	10.4	6	14,100	287	710
Dibromochloromethane	7.3	68	0.01	0.1	NC	NC	0.5	1,020	NC	NC
1,2-Dichlorobenzene	500	1,000	3.1	3.1	240	818	600	170,000	30,500	50,000
1,3-Dichlorobenzene	500	1,000	12	120	240	818	600	26,000	24,200	50,000
1,4-Dichlorobenzene	26	240	1.5	15	950	3,270	75	26,000	50,000	50,000
1,1-Dichloroethane	500	1,000	1.4	14	850	3,037	70	NC	34,600	50,000
1,2-Dichloroethane	6.7	63	0.02	0.2	1	1	1	2,970	21	90
1,1-Dichloroethylene	1	9.5	0.14	1.4	1	1	7	96	1	6
cis-1,2-Dichloroethylene	500	1,000	1.4	14	NC	NC	70	NC	NC	NC
trans-1,2-Dichloroethylene	500	1,000	2	20	NC	NC	100	NC	NC	NC
1,2-Dichloropropane	9	84	0.1	1.0	1	1	5	NC	14	60
1,3-Dichloropropene	3.4	32	0.01	0.1	1	1	0.5	34,000	6	25
Ethylbenzene	500	1,000	10.1	10.1	1,650	5,672	700	580,000	50,000	50,000
Ethylene dibromide (EDB)	0.007	0.067	0.01	0.1	1	1	0.05	NC	4	16
Methyl-tert-butyl-ether	500	1,000	2	20	1,000	3,415	100	NC	50,000	50,000
Methyl isobutyl ketone	500	1,000	7	14	140	480	350	NC	50,000	50,000
Methylene chloride	82	760	0.1	1.0	1,200	2,907	5	48,000	50,000	50,000
Styrene	500	1,000	2	20	8	28	100	NC	580	2,065
1,1,1,2-Tetrachloroethane	24	220	0.02	0.2	1	1.5	1	NC	12	50
1,1,1,2,2-Tetrachloroethane	3.1	29	0.01	0.1	1	1	0.5	110	23	100
Tetrachloroethylene	12	110	0.1	1	11	27	5	88	1,500	3,820
Toluene	500	1,000	20	67	760	2,615	1,000	4,000,000	23,500	50,000



1,1,1-Trichloroethane	500	1,000	4	40	1,310	4,520	200	62,000	20,400	50,000
1,1,2-Trichloroethane	11	100	0.1	1	40	93	5	1,260	8,000	19,600
Trichloroethylene	56	520	0.1	1.0	7	16	5	2,340	219	540
Vinyl chloride	0.32	3	0.04	0.40	1	1	2	15,750	2	2
Xylenes	500	1,000	19.5	19.5	500	1,702	530	NC	21,300	50,000

Semivolatile Substances

Acenaphthylene	1,000	2,500	8.4	84	NC	NC	420	0.3	NC	NC
Anthracene	1,000	2,500	40	400	NC	NC	2,000	1,100,000	NC	NC
Benzo(a)anthracene	1	7.8	1	1	NC	NC	0.06	0.3	NC	NC
Benzo(b)fluoranthene	1	7.8	1	1	NC	NC	0.08	0.3	NC	NC
Benzo(k)fluoranthene	8.4	78	1	1	NC	NC	0.5	0.3	NC	NC
Benzo(a)pyrene	1	1	1	1	NC	NC	0.2	0.3	NC	NC
Bis(2-chloroethyl)ether	1	5.2	1	2.4	NC	NC	12	42	NC	NC
Bis(2-chloroisopropyl)ether	8.8	82	1	2.4	NC	NC	12	3,400,000	NC	NC
Bis(2-ethylhexyl)phthalate	44	410	1	11	NC	NC	2	59	NC	NC
Butyl benzl phthalate	1,000	2,500	20	200	NC	NC	1,000	NC	NC	NC
2-chlorophenol	340	2,500	1	7.2	NC	NC	36	NC	NC	NC
Di-n-butyl phthalate	1,000	2,500	14	140	NC	NC	700	120,000	NC	NC
Di-n-octyl phthalate	1,000	2,500	2	20	NC	NC	100	NC	NC	NC
2,4-Dichlorophenol	200	2,500	1	4	NC	NC	20	15,800	NC	NC
Fluoranthene	1,000	2,500	5.6	56	NC	NC	280	3,700	NC	NC
Fluorene	1,000	2,500	5.6	56	NC	NC	280	140,000	NC	NC
Hexachloroethane	44	410	1	1	NC	NC	3	89	NC	NC
Hexachlorobenzene	1	3.6	1	1	NC	NC	1	0.077	NC	NC
Naphthalene	1,000	2,500	5.6	56	NC	NC	280	NC	NC	NC
Pentachlorophenol	5.1	48	1	1	NC	NC	1	NC	NC	NC
Phenanthrene	1,000	2,500	4	40	NC	NC	200	0.077	NC	NC
Phenol	1,000	2,500	80	800	NC	NC	4,000	92,000,000	NC	NC
Pyrene	1,000	2,500	4	40	NC	NC	200	110,000	NC	NC

Inorganic Substances

Antimony	27	8,200	0.006 ⁽¹⁾	0.06 ⁽¹⁾	NC	NC	6	86,000	NC	NC
Arsenic	10	10	0.05 ⁽¹⁾	0.5 ⁽¹⁾	NC	NC	50	4	NC	NC
Asbestos	NC	NC	NC	NC	NC	NC	7 ⁽³⁾	7 ⁽³⁾	NC	NC
Barium	4,700	140,000	1.0 ⁽¹⁾	10.0 ⁽¹⁾	NC	NC	1,000	NC	NC	NC
Beryllium	2	2	0.004 ⁽¹⁾	0.04 ⁽¹⁾	NC	NC	4	4	NC	NC



Cadmium	34	1,000	0.005 ⁽¹⁾	0.05 ⁽¹⁾	NC	NC	5	6	NC	NC
Chromium, total	NC	NC	0.05 ⁽¹⁾	0.5 ⁽¹⁾	NC	NC	50	NC	NC	NC
Chromium, trivalent	3,900	51,000	NC	NC	NC	NC	NC	1,200	NC	NC
Chromium, hexavalent	100	100	NC	NC	NC	NC	NC	110	NC	NC
Copper	2,500	76,000	1.3 ⁽¹⁾	13 ⁽¹⁾	NC	NC	1,300	48	NC	NC
Cyanide	1,400	41,000	0.2 ⁽²⁾	2 ⁽²⁾	NC	NC	200	52	NC	NC
Lead	500	1,000	0.015 ⁽¹⁾	0.15 ⁽¹⁾	NC	NC	15	13	NC	NC
Mercury	20	610	0.002 ⁽¹⁾	0.02 ⁽¹⁾	NC	NC	2	0.4	NC	NC
Nickel	1,400	7,500	0.1 ⁽¹⁾	1.0 ⁽¹⁾	NC	NC	100	880	NC	NC
Selenium	340	10,000	0.05 ⁽¹⁾	0.5 ⁽¹⁾	NC	NC	50	50	NC	NC
Silver	340	10,000	0.036 ⁽¹⁾	0.36 ⁽¹⁾	NC	NC	36	12	NC	NC
Thallium	5.4	160	0.005 ⁽¹⁾	0.05 ⁽¹⁾	NC	NC	5	63	NC	NC
Vanadium	470	14,000	0.05 ⁽¹⁾	0.50 ⁽¹⁾	NC	NC	50	NC	NC	NC
Zinc	20,000	610,000	5.0 ⁽¹⁾	50.0 ⁽¹⁾	NC	NC	5,000	123	NC	NC

Pesticides, PCBs, and TPH

Alachlor	7.7	72	0.230	0.4	NC	NC	2	NC	NC	NC
Aldicarb	14	410	1	1	NC	NC	3	NC	NC	NC
Atrazine	2.8	26	0.2	0.2	NC	NC	3	NC	NC	NC
Chlordane	0.49	2.2	0.066	0.066	NC	NC	0.3	0.3	NC	NC
Dieldrin	0.038	0.36	0.007	0.007	NC	NC	0.002	0.1	NC	NC
Endrin	20	610	NC	NC	NC	NC	NC	0.1	NC	NC
2-4 D	680	20,000	1.4	14	NC	NC	70	NC	NC	NC
Heptachlor epoxide	0.067	0.63	0.02	0.02	NC	NC	0.2	0.05	NC	NC
Heptachlor	0.14	1.3	0.013	0.013	NC	NC	0.4	0.05	NC	NC
Lindane	20	610	0.02	0.04	NC	NC	0.2	NC	NC	NC
Methoxychlor	340	10,000	0.8	8	NC	NC	40	NC	NC	NC
Simazine	NC	NC	0.8	8	NC	NC	4	NC	NC	NC
Toxaphene	0.56	5.2	0.33	0.6	NC	NC	3	1	NC	NC
PCBs	1	10	0.0005 ⁽¹⁾	0.005 ⁽¹⁾	NC	NC	0.5	0.5	NC	NC
TPH	500	2,500	500	2,500	NC	NC	500	NC	NC	NC

Notes:

- mg/kg = milligrams per kilogram.
- NC = No criterion.
- ppb = parts per billion.
- ppm = parts per million.
- µg/L = micrograms per liter.
- PCB = Polychlorinated Biphenyl.



- (1) = Test performed on leachate from Toxicity Characteristic Leaching Procedure (TCLP) or Synthetic Precipitation Leaching Procedure (SPLP). Units are milligrams per liter (mg/L).
- (2) = Test performed on leachate from SPLP only. Units are mg/L.
- (3) = Units are million fibers per liter (mfl).

TYPES OF CLEANUP STANDARDS AND THEIR RATIONALE

