

Summary Vapor Intrusion Screening Criteria for Contaminant Short List

Pennsylvania Department of Environmental Protection

DRAFT For internal distribution only

Version 1.3

October 2014

Residential		IA	SS	NS	Soil	GW
Regulated Substance	CAS No.	$C_{ia,R}$	$C_{ss,R}$	$C_{ns,R}$	$C_{soil,R}$	$C_{gw,R}$
		($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(mg/kg)	($\mu\text{g}/\text{L}$)
BENZENE	71-43-2	3.1	120	620	0.13	23
TOLUENE	108-88-3	5,200	200,000	1,000,000	44	34,000
ETHYL BENZENE	100-41-4	9.7	370	1,900	46	700
XYLENES (TOTAL)	1330-20-7	100	4,000	21,000	990	10,000
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	94	3,600	19,000	0.28	6,000
CUMENE (ISOPROPYL BENZENE)	98-82-8	420	16,000	83,000	600	2,100
NAPHTHALENE	91-20-3	0.72	28	140	25	100
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	7.3	280	1,500	8.4	64
TRIMETHYLBENZENE, 1,3,5-	108-67-8	7.3	280	1,500	74	420
TETRACHLOROETHYLENE (PCE)	127-18-4	42	1,600	8,300	0.43	110
TRICHLOROETHYLENE (TCE)	79-01-6	2.1	80	420	0.17	8.8
DICHLOROETHANE, 1,2-	107-06-2	0.94	36	190	0.10	33
DICHLOROETHYLENE, 1,1-	75-35-4	210	8,000	42,000	0.19	280
DICHLOROBENZENE, 1,2-	95-50-1	210	8,000	42,000	59	5,900
VINYL CHLORIDE	75-01-4	1.1	41	210	0.027	2.0

Nonresidential		IA	SS	NS	Soil	GW
Regulated Substance	CAS No.	$C_{ia,NR}$	$C_{ss,NR}$	$C_{ns,NR}$	$C_{soil,NR}$	$C_{gw,NR}$
		($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(mg/kg)	($\mu\text{g}/\text{L}$)
BENZENE	71-43-2	16	2,000	16,000	0.13	380
TOLUENE	108-88-3	22,000	2,800,000	22,000,000	68	480,000
ETHYL BENZENE	100-41-4	49	6,300	49,000	46	980
XYLENES (TOTAL)	1330-20-7	440	56,000	440,000	990	14,000
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	470	61,000	470,000	3.5	100,000
CUMENE (ISOPROPYL BENZENE)	98-82-8	1,800	220,000	1,800,000	2,500	30,000
NAPHTHALENE	91-20-3	3.6	460	3,600	25	1,600
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	31	3,900	31,000	35	890
TRIMETHYLBENZENE, 1,3,5-	108-67-8	31	3,900	31,000	210	1,200
TETRACHLOROETHYLENE (PCE)	127-18-4	180	22,000	180,000	0.44	1,500
TRICHLOROETHYLENE (TCE)	79-01-6	8.8	1,100	8,800	0.17	120
DICHLOROETHANE, 1,2-	107-06-2	4.7	610	4,700	0.10	550
DICHLOROETHYLENE, 1,1-	75-35-4	880	110,000	880,000	0.32	3,900
DICHLOROBENZENE, 1,2-	95-50-1	880	110,000	880,000	59	82,000
VINYL CHLORIDE	75-01-4	14	1,700	14,000	0.027	51

Converted Residential		IA	SS	NS	Soil	GW
Regulated Substance	CAS No.	$C_{ia,CR}$	$C_{ss,CR}$	$C_{ns,CR}$	$C_{soil,CR}$	$C_{gw,CR}$
		($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(mg/kg)	($\mu\text{g}/\text{L}$)
BENZENE	71-43-2	16	610	3,100	0.13	110
TOLUENE	108-88-3	22,000	840,000	4,400,000	44	140,000
ETHYL BENZENE	100-41-4	49	1,900	9,800	46	700
XYLENES (TOTAL)	1330-20-7	440	17,000	88,000	990	10,000
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	470	18,000	94,000	0.70	30,000
CUMENE (ISOPROPYL BENZENE)	98-82-8	1,800	67,000	350,000	2,500	8,900
NAPHTHALENE	91-20-3	3.6	140	720	25	490
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	31	1,200	6,100	35	270
TRIMETHYLBENZENE, 1,3,5-	108-67-8	31	1,200	6,100	210	1,200
TETRACHLOROETHYLENE (PCE)	127-18-4	180	6,700	35,000	0.43	450
TRICHLOROETHYLENE (TCE)	79-01-6	8.8	340	1,800	0.17	37
DICHLOROETHANE, 1,2-	107-06-2	4.7	180	940	0.10	170
DICHLOROETHYLENE, 1,1-	75-35-4	880	34,000	180,000	0.19	1,200
DICHLOROBENZENE, 1,2-	95-50-1	880	34,000	180,000	59	25,000
VINYL CHLORIDE	75-01-4	14	520	2,700	0.027	15