**Section 742.APPENDIX B Tier 1 Illustrations and Tables**

**Section 742.TABLE G Tier 1 Soil Gas Remediation Objectives for the Outdoor Inhalation**

**Exposure Routea**

| CAS No. | Chemical Name | Residential (mg/m3) | Industrial/Commercial (mg/m3) | Construction Worker (mg/m3) |
| --- | --- | --- | --- | --- |
| 67-64-1 | Acetone | 750,000e | 750,000e | 750,000e |
| 71-43-2 | Benzene | 420c | 800c | 1,100c |
| 111-44-4 | Bis(2-chloroethyl)ether | 1.3c | 2.4c | 3.4c |
| 75-27-4 | Bromodichloromethane | 450,000e | 450,000e | 450,000e |
| 75-25-2 | Bromoform | 1,800c | 3,500c | 4,900c |
| 71-36-3 | Butanol | 29,000e | 29,000e | 29,000e |
| 78-93-3 | 2-Butanone (MEK) | 380,000e | 380,000e | 15,000b |
| 75-15-0 | Carbon disulfide | 1,500,000e | 1,500,000e | 48,000b |
| 56-23-5 | Carbon tetrachloride | 290c | 550c | 770c |
| 108-90-7 | Chlorobenzene | 36,000b | 57,000b | 3,700b |
| 124-48-1 | Chlorodibromomethane | 57,000e | 57,000e | 150b |
| 67-66-3 | Chloroform | 110c | 200c | 290c |
| 95-57-8 | 2-Chlorophenol | 17,000e | 17,000e | 17,000e |
| 75-99-0 | Dalapon | 1,500e | 1,500e | 1,500e |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.14c | 0.27c | 0.38c |
| 106-93-4 | 1,2-Dibromoethane | 2.9c | 5.6c | 7.9c |
| 95-50-1 | 1,2-Dichlorobenzene | 11,000e | 11,000e | 6,700b |
| 106-46-7 | 1,4-Dichlorobenzene | 8,400e | 8,400e | 6,400b |
| 75-71-8 | Dichlorodifluoromethane | 890,000b | 1,400,000b | 92,000b |
| 75-34-3 | 1,1-Dichloroethane | 870,000b | 1,300,000e | 90,000b |
| 107-06-2 | 1,2-Dichloroethane | 67c | 130c | 180c |
| 75-35-4 | 1,1-Dichloroethylene | 520,000b | 820,000b | 5,300b |
| 156-59-2 | *cis*-1,2-Dichloroethylene | 1,100,000e | 1,100,000e | 1,100,000e |
| 156-60-5 | *trans*-1,2-Dichloroethylene | 120,000b | 190,000b | 12,000b |
| 78-87-5 | 1,2-Dichloropropane | 240c | 470c | 110c |
| 542-75-6 | 1,3-Dichloropropylene (*cis* + *trans*) | 1,900c | 3,700c | 1,400c |
| 123-91-1 | p-Dioxane | 16c | 30c | 42c |
| 100-41-4 | Ethylbenzene | 59,000e | 59,000e | 8,500b |
| 76-44-8 | Heptachlor | 0.40c | 0.76c | 1.1c |
| 118-74-1 | Hexachlorobenzene | 0.26c | 0.28e | 0.28e |
| 77-47-4 | Hexachlorocyclopentadiene | 85b | 140b | 440b |
| 67-72-1 | Hexachloroethane | 2,800e | 2,800e | 2,800e |
| 78-59-1 | Isophorone | 3,400e | 3,400e | 1,500b |
| 98-82-8 | Isopropylbenzene (Cumene) | 30,000e | 30,000e | 30,000e |
| 7439-97-6 | Mercuryf | 22e | 22e | 0.62b |
| 74-83-9 | Methyl bromide | 12,000b | 19,000b | 2,400b |
| 1634-04-4 | Methyl tertiary-butyl ether | 1,200,000e | 1,200,000e | 23,000b |
| 75-09-2 | Methylene chloride | 6,100c | 12,000c | 5,100b |
| 91-57-6 | 2-Methylnaphthalene | 530e | 530e | 530e |
| 95-48-7 | 2-Methylphenol (o-cresol) | 1,800e | 1,800e | 410b |
| 91-20-3 | Naphthalene | 560b | 620e | 5.8b |
| 98-95-3 | Nitrobenzene | 6.5c | 12c | 10b |
| 621-64-7 | n-Nitrosodi-n-propylamine | 0.056c | 0.11c | 0.15c |
| 108-95-2 | Phenol | 1,500e | 1,500e | 79b |
| 1336-36-3 | Polychlorinated biphenyls (PCBs) | ---d | ---d | ---d |
| 100-42-5 | Styrene | 34,000e | 34,000e | 16,000b |
| 127-18-4 | Tetrachloroethylene | 360c | 690c | 970c |
| 108-88-3 | Toluene | 140,000e | 140,000e | 50,000b |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1,000b | 1,600b | 110b |
| 71-55-6 | 1,1,1-Trichloroethane | 870,000e | 870,000e | 89,000b |
| 79-00-5 | 1,1,2-Trichloroethane | 170,000e | 170,000e | 170,000e |
| 79-01-6 | Trichloroethylene | 1,700c | 3,300c | 1,500b |
| 75-69-4 | Trichlorofluoromethane | 2,100,000b | 3,400,000b | 220,000b |
| 108-05-4 | Vinyl acetate | 160,000b | 250,000b | 1,600b |
| 75-01-4 | Vinyl chloride | 780c | 3,000c | 3,000b |
| 108-38-3 | m-Xylene | 52,000e | 52,000e | 3,100b |
| 95-47-6 | o-Xylene | 41,000e | 41,000e | 2,600b |
| 106-42-3 | p-Xylene | 55,000e | 55,000e | 3,300b |
| 1330-20-7 | Xylenes (total) | 49,000e | 49,000e | 2,900b |

Chemical Name and Remediation Objective Notations

a For the outdoor inhalation exposure route, it is acceptable to determine compliance by meeting either the soil or soil gas remediation objectives. The soil remediation objectives for the outdoor inhalation route are located in Appendix B, Tables A and B.

b Calculated values correspond to a target hazard quotient of 1.

c Calculated values correspond to a cancer risk level of 1 in 1,000,000.

d PCBs are a mixture of different congeners. The appropriate values to use for the physical/chemical and toxicity parameters depend on the congeners present at the site. Persons remediating sites should consult with IEPA Bureau of Land (BOL) if calculation of Tier 2 or 3 remediation objectives is desired.

e The value shown is the Cvsat value of the chemical in soil gas. The Cvsat of the chemical becomes the remediation objective if the calculated value exceeds the Cvsat value or if there are no toxicity criteria available for the inhalation route of exposure.

f Value for the inhalation exposure route is based on Reference Concentration for elemental Mercury (CAS No. 7439-97-6). Inhalation remediation objectives only apply at sites where elemental Mercury is a contaminant of concern.

ILLINOIS REGISTER

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

(Source: Added at 37 Ill. Reg. 7506, effective May 15, 2013)