

**Table 2. Acute Vapor Intrusion Risk-Based Concentrations**

Chemical	CAS Number	Risk-Based Concentration - Acute Noncancer					
		Residential			Commercial		
		RBCair (µg/m ³)	RBCsv (µg/m ³)	RBCwi (µg/L)	RBCair (µg/m ³)	RBCsv (µg/m ³)	RBCwi (µg/L)
Acetaldehyde	75-07-0	470	16,000	260,000	1,400	47,000	780,000
Acrolein	107-02-8	6.9	230	2,300	21	700	6,900
Acrylic Acid	79-10-7	6,000	200,000	1,000,000,000	18,000	600,000	3,000,000,000
Acrylonitrile	107-13-1	220	7,300	71,000	660	22,000	210,000
Ammonia	7664-41-7	1,200	40,000	2,500,000	3,600	120,000	7,600,000
Antimony (metallic)	7440-36-0	1.0	NV	NV	3.0	NV	NV
Arsenic, Inorganic	7440-38-2	0.20	NV	NV	0.60	NV	NV
Arsine	7784-42-1	0.20	NV	NV	0.60	NV	NV
Benzene	71-43-2	29	970	220	87	2,900	670
Benzo[a]pyrene	50-32-8	0.0020	NV	NV	0.0060	NV	NV
Benzyl Chloride	100-44-7	240	8,000	30,000	720	24,000	90,000
Beryllium and compounds	7440-41-7	0.020	NV	NV	0.060	NV	NV
Bis(2-chloroethyl)ether	111-44-4	120	4000	NC	360	12,000	NC
Bis(chloromethyl)ether	542-88-1	1.4	47	NC	4.2	140	NC
Bromomethane	74-83-9	3,900	130,000	19,000	12,000	400,000	58,000
Bromopropane, 1-	106-94-5	1,700	57,000	9,700	5,100	170,000	29,000
Butadiene, 1,3-	106-99-0	660	22,000	310	2,000	67,000	930
Cadmium (Diet)	7440-43-9	0.030	NV	NV	0.090	NV	NV
Cadmium (Water)	7440-43-9	0.030	NV	NV	0.090	NV	NV
Caprolactam	105-60-2	50	NV	NV	150	NV	NV
Carbon Disulfide	75-15-0	6,200	210,000	16,000	19,000	630,000	51,000
Carbon Tetrachloride	56-23-5	1,900	63,000	2,900	5,700	190,000	8,700
Carbonyl Sulfide	463-58-1	660	22,000	25	2,000	67,000	77
Chlordane (technical mixture)	12789-03-6	0.20	6.7	1,100	0.60	20	3,300
Chlorine	7782-50-5	170	5700	470	510	17000	1,400
Chlorine Dioxide	10049-04-4	2.8	93	2.8	8.4	280	8
Chloroform	67-66-3	490	16,000	5,500	1,500	50,000	17,000
Chloromethane	74-87-3	1,000	33,000	3,800	3,000	100,000	11,000
Chloropicrin	76-06-2	29	970	660	87	2,900	2,000
Chromium(VI)	18540-29-9	0.30	NV	NV	0.90	NV	NV
Dibromo-3-chloropropane, 1,2-	96-12-8	1.9	63	760	5.7	190	2,300
Dichlorobenzene, 1,4-	106-46-7	12,000	400,000	270,000	36,000	1,200,000	820,000
Dichloroethylene, 1,1-	75-35-4	200	6700	290	600	20,000	870
Dichloroethylene, trans-1,2-	156-60-5	790	26,000	3,400	2,400	80,000	10,000
Dichloropropane, 1,2-	78-87-5	230	7,700	3,600	690	23,000	11,000
Dichloropropene, 1,3-	542-75-6	36	1,200	470	110	3,700	1,400
Dichlorvos	62-73-7	18	NV	NV	54	NV	NV
Dimethylhydrazine, 1,1-	57-14-7	0.49	16	1700	1.5	50	5,100
Dioxane, 1,4-	123-91-1	7,200	240,000	70,000,000	22,000	730,000	210,000,000
Epichlorohydrin	106-89-8	1,300	43,000	1,000,000	3,900	130,000	3,000,000
Ethoxyethanol Acetate, 2-	111-15-9	140	4,700	2,500,000	420	14,000	7,700,000
Ethoxyethanol, 2-	110-80-5	370	12,000	44,000,000	1,100	37,000	130,000,000

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Ethyl Chloride	75-00-3	40,000	1,300,000	130,000	120,000	4,000,000	390,000
Ethylbenzene	100-41-4	22,000	730,000	140,000	66,000	2,200,000	410,000
Ethylene Glycol	107-21-1	2,000	NV	NV	6,000	NV	NV
Ethylene Glycol Monobutyl Ether	111-76-2	29,000	NV	NV	87,000	NV	NV
Ethylene Oxide	75-21-8	160	5,300	40,000	480	16,000	120,000
Fluoride	16984-48-8	240	NV	NV	720	NV	NV
Fluorine (Soluble Fluoride)	7782-41-4	16	NV	NV	48	NV	NV
Formaldehyde	50-00-0	49	1,600	5,100,000	150	5,000	16,000,000
Glutaraldehyde	111-30-8	4.1	NV	NV	12	NV	NV
Hexachlorocyclopentadiene	77-47-4	110	3,700	6,000	330	11,000	18,000
Hexachloroethane	67-72-1	58,000	1,900,000	1,000,000	170,000	5,700,000	3,000,000
Hexamethylene diisocyanate biure	4035-89-6	--	--	--	--	--	--
Hydrazine	302-01-2	5.2	170	450,000	16	530	1,400,000
Hydrogen Chloride	7647-01-0	2,100	70,000	120,000,000,000	6,300	210,000	370,000,000,000
Hydrogen Cyanide	74-90-8	340	11,000	99,000	1,000	33,000	290,000
Hydrogen Fluoride	7664-39-3	16	530	4,100	48	1,600	12,000
Hydrogen Sulfide	7783-06-4	98	3,300	350	290	9,700	1,000
Isopropanol	67-63-0	3,200	110,000	21,000,000	9,600	320,000	63,000,000
Lead Phosphate	7446-27-7	--	--	--	--	--	--
Manganese (Diet)	7439-96-5	0.30	NV	NV	0.90	NV	NV
Manganese (Non-diet)	7439-96-5	0.30	NV	NV	0.90	NV	NV
Mercury (elemental)	7439-97-6	0.60	20	5.0	1.8	60	15
Methanol	67-56-1	28,000	930,000	290,000,000	84,000	2,800,000	860,000,000
Methoxyethanol, 2-	109-86-4	93	3,100	14,000,000	280	9,300	43,000,000
Methyl Ethyl Ketone (2-Butanone)	78-93-3	5,000	170,000	3,800,000	15,000	500,000	12,000,000
Methyl tert-Butyl Ether (MTBE)	1634-04-4	8,000	270,000	550,000	24,000	800,000	1,600,000
Methylene-bis(2-chloroaniline), 4,4'	101-14-4	--	--	--	--	--	--
Methylnaphthalene, 1-	90-12-0	--	--	--	--	--	--
Naphthalene	91-20-3	200	6,700	27,000	600	20,000	82,000
Nickel Acetate	373-02-4	0.20	NV	NV	0.60	NV	NV
Nickel Soluble Salts	7440-02-0	0.20	NV	NV	0.60	NV	NV
Phenol	108-95-2	5,800	NV	NV	17,000	NV	NV
Phosgene	75-44-5	4.0	130	10	12	400	29
Propylene Glycol Dinitrate	6423-43-4	20	NV	NV	60	NV	NV
Propylene Oxide	75-56-9	3,100	100,000	1,700,000	9,300	310,000	5,200,000
Selenium	7782-49-2	2.0	NV	NV	6.0	NV	NV
Styrene	100-42-5	21,000	700,000	410,000	63,000	2,100,000	1,200,000
Sulfur Trioxide	7446-11-9	120	4,000	NC	360	12,000	NC
Sulfuric Acid	7664-93-9	120	NV	NV	360	NV	NV
Tetrachloroethylene	127-18-4	41	1,400	110	120	4,000	320
Titanium Tetrachloride	7550-45-0	10	330	NC	30	1,000	NC
Toluene	108-88-3	7,500	250,000.0	52,000	23,000	770,000	160,000

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Toluene-2,4-diisocyanate	584-84-9	0.071	2.4	510	0.21	7.0	1,500
Trichloroethane, 1,1,1-	71-55-6	11,000	370,000	27,000	33,000	1,100,000	80,000
Trichloroethylene	79-01-6	2.1	70	9.3	6.3	210	28
Trichloropropane, 1,2,3-	96-18-4	1.8	60	270	5.4	180	820
Triethylamine	121-44-8	2,800	93,000	830,000	8,400	280,000	2,500,000
Vanadium and Compounds	7440-62-2	1	NV	NV	2	NV	NV
Vanadium Pentoxide	1314-62-1	30.00	NV	NV	90.0	NV	NV
Vinyl Acetate	108-05-4	200	6,700	18,000	600	20,000	55,000
Vinyl Chloride	75-01-4	1,300	43,000	1,500	3,900	130,000	4,600
Xylenes	1330-20-7	8,700	290,000	65,000	26,000	870,000	190,000

Notes:

RBC = Risk-Based Concentration

RBCwi = RBC for vapor intrusion from groundwater (µg/L)

RBCair = RBC in air medium, (µg/m³)

NC = not calculated

RBCsv = RBC in soil vapor medium (µg/m³)

NV = not volatile

Residential RBCs taken from Cleaner Air Oregon Program acute RBCs in OAR 340-245-8010, Table 2.

Occupational RBCs calculated by multiplying residential RBCs by a factor of 24 hrs / 8 hrs = 3.

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