



Program Redesign 2009: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC),  
Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW<sub>VI</sub>SLs)

Hazardous Substance	Chemical Abstract Service Number	Residential Indoor Air Criteria <sub>(a)</sub>		Non-Residential Indoor Air Criteria <sub>(a)</sub>		DEEP 5' Residential Soil Gas Criteria <sub>(a)</sub>		SUB-SLAB Residential Soil Gas Criteria <sub>(a)</sub>		DEEP 5' Non-Residential Soil Gas Criteria <sub>(a)</sub>		SUB-SLAB Non-Residential Soil Gas Criteria <sub>(a)</sub>		Residential GW <sub>VI</sub> SL <sub>(c,d)</sub>	Non-Residential GW <sub>VI</sub> SL <sub>(c,d)</sub>		
		(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/L)	(ug/L)
Acenaphthene	83329	2.2E+02	3.5E+1	3.1E+02	5.0E+1	1.1E+5	1.7E+4	1.1E+4	1.7E+3	1.6E+5	2.5E+4	1.6E+4	2.5E+3	6.6E+04	9.4E+04		
Acenaphthylene	208968	3.7E+01	5.9E+0	5.2E+01	8.4E+0	1.8E+4	2.9E+3	1.8E+3	2.9E+2	2.6E+4	4.2E+3	2.6E+3	4.2E+2	1.1E+03	1.6E+03		
Acetaldehyde	75070	9.4E+00	5.2E+0	1.3E+01	7.4E+0	4.7E+3	2.6E+3	4.7E+2	2.6E+2	6.7E+3	3.7E+3	6.7E+2	3.7E+2	5.5E+03	7.8E+03		
Acetate	71501	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Acetic acid	64197	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Acetone	67641	6.2E+03	2.6E+3	8.8E+03	3.7E+3	3.1E+6	1.3E+6	3.1E+5	1.3E+5	4.4E+6	1.9E+6	4.4E+5	1.9E+5	7.4E+06	1.1E+07		
Acetonitrile	75058	6.3E+01	3.7E+1	8.9E+01	5.3E+1	3.1E+4	1.9E+4	3.1E+3	1.9E+3	4.5E+4	2.7E+4	4.5E+3	2.7E+3	1.2E+05	1.7E+05		
Acetophenone	98862	5.1E+02	1.0E+2	7.3E+02	1.5E+2	2.6E+5	5.2E+4	2.6E+4	5.2E+3	3.7E+5	7.4E+4	3.7E+4	7.4E+3	2.2E+06	3.1E+06		
Acrolein	107028	2.1E-02	9.1E-3	3.0E-02	1.3E-2	1.0E+1	4.6E+0	1.0E+0	4.6E-1	1.5E+1	6.5E+0	1.5E+0	6.5E-1	2.0E+01	2.0E+01		
Acrylamide	79061	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Acrylic acid	79107	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Acrylonitrile	107131	3.6E-01	1.6E-1	1.5E+00	6.7E-1	1.8E+2	8.2E+1	1.8E+1	8.2E+0	7.3E+2	3.4E+2	7.3E+1	3.4E+1	1.7E+02	6.8E+02		
Alachlor	15972608	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Aldicarb	116063	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Aldicarb sulfone	1646884	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Aldicarb sulfoxide	1646873	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Aldrin	309002	5.0E-03	3.3E-4	2.0E-02	1.4E-3	2.5E+0	1.7E-1	2.5E-1	1.7E-2	1.0E+1	6.8E-1	1.0E+0	6.8E-2	1.4E+00	5.5E+00		
Aluminum	7429905	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Ammonia	7664417	1.0E+02	1.5E+2	1.5E+02	2.1E+2	5.2E+4	7.5E+4	5.2E+3	7.5E+3	7.4E+4	1.1E+5	7.4E+3	1.1E+4	1.5E+04	2.2E+04		
t-Amyl methyl ether (TAME)	994058	6.5E+01	1.5E+1	9.2E+01	2.2E+1	3.2E+4	7.7E+3	3.2E+3	7.7E+2	4.6E+4	1.1E+4	4.6E+3	1.1E+3	1.1E+03	1.6E+03		
Aniline	62533	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Anthracene	120127	1.0E+03	1.4E+2	1.5E+03	2.0E+2	5.2E+5	7.2E+4	5.2E+4	7.2E+3	7.4E+5	1.0E+5	7.4E+4	1.0E+4	7.5E+05	1.1E+06		
Antimony	7440360	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Arsenic	7440382	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Asbestos	1332214	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Atrazine	1912249	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Azobenzene	103333	7.8E-01	1.1E-1	3.2E+00	4.3E-1	3.9E+2	5.3E+1	3.9E+1	5.3E+0	1.6E+3	2.2E+2	1.6E+2	2.2E+1	2.7E+03	1.1E+04		
Barium	7440393	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Benzene	71432	2.9E+00	9.2E-1	1.2E+01	3.7E+0	1.5E+3	4.6E+2	1.5E+2	4.6E+1	6.0E+3	1.9E+3	6.0E+2	1.9E+2	2.5E+01	1.0E+02		
Benzidine	92875	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Benzo(a)anthracene	56553	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Benzo(b)fluoranthene	205992	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID		
Benzo(k)fluoranthene	207089	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Benzo(g,h,i)perylene	191242	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Benzo(a)pyrene	50328	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Benzoic acid	65850	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Benzyl alcohol	100516	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Benzyl chloride	100447	4.9E-01	9.4E-2	2.0E+00	3.8E-1	2.4E+2	4.7E+1	2.4E+1	4.7E+0	9.9E+2	1.9E+2	9.9E+1	1.9E+1	5.7E+01	2.3E+02		
Beryllium	7440417	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
bis(2-Chloroethoxy)ethane	112265	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
bis(2-Chloroethyl)ether	111444	7.4E-02	1.3E-2	3.0E-01	5.1E-2	3.7E+1	6.3E+0	3.7E+0	6.3E-1	1.5E+2	2.6E+1	1.5E+1	2.6E+0	1.9E+02	7.8E+02		
bis(2-Ethylhexyl)phthalate	117817	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Boron	7440428	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV		
Bromate	15541454	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID		
Bromobenzene	108861	8.3E+00	1.3E+0	1.2E+01	1.9E+0	4.2E+3	6.5E+2	4.2E+2	6.5E+1	6.0E+3	9.3E+2	6.0E+2	9.3E+1	8.2E+02	1.2E+03		
Bromodichloromethane	75274	1.4E+00	2.1E-1	5.6E+00	8.4E-1	6.9E+2	1.0E+2	6.9E+1	1.0E+1	2.8E+3	4.2E+2	2.8E+2	4.2E+1	8.0E+01	1.6E+02		
Bromoform	75252	2.2E+01	2.1E+0	9.0E+01	8.7E+0	1.1E+4	1.1E+3	1.1E+3	1.1E+2	4.5E+4	4.4E+3	4.5E+3	4.4E+2	1.9E+03	7.8E+03		



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		(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/L)	(ug/L)
Bromomethane	74839	5.2E+00	1.3E+0	7.4E+00	1.9E+0	2.6E+3	6.7E+2	2.6E+2	6.7E+1	3.7E+3	9.6E+2	3.7E+2	9.6E+1	1.7E+01	2.4E+01
n-Butanol	71363	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2-Butanone (MEK)	78933	5.2E+03	1.8E+3	7.4E+03	2.5E+3	2.6E+6	8.8E+5	2.6E+5	8.8E+4	3.7E+6	1.3E+6	3.7E+5	1.3E+5	6.7E+06	9.6E+06
n-Butyl acetate	123864	7.4E+03	1.6E+3	1.1E+04	2.2E+3	3.7E+6	7.8E+5	3.7E+5	7.8E+4	5.3E+6	1.1E+6	5.3E+5	1.1E+5	1.1E+06	1.5E+06
t-Butyl alcohol	75650	2.0E+03	6.5E+2	2.8E+03	9.3E+2	9.9E+5	3.3E+5	9.9E+4	3.3E+4	1.4E+6	4.6E+5	1.4E+5	4.6E+4	7.8E+06	1.1E+07
Butyl benzyl phthalate	85687	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
n-Butylbenzene	104518	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
sec-Butylbenzene	135988	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
tert-Butylbenzene	98066	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Cadmium	7440439	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Camphene	79925	8.3E+01	1.5E+1	1.2E+02	2.1E+1	4.2E+4	7.5E+3	4.2E+3	7.5E+2	6.0E+4	1.1E+4	6.0E+3	1.1E+3	1.9E+00	2.7E+00
Caprolactam	105602	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Carbaryl	63252	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Carbazole	86748	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Carbafuran	1563662	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Carbon disulfide	75150	7.3E+02	2.3E+2	1.0E+03	3.4E+2	3.7E+5	1.2E+5	3.7E+4	1.2E+4	5.2E+5	1.7E+5	5.2E+4	1.7E+4	1.1E+03	1.6E+03
Carbon tetrachloride	56235	1.6E+00	2.6E-1	6.6E+00	1.1E+0	8.1E+2	1.3E+2	8.1E+1	1.3E+1	3.3E+3	5.3E+2	3.3E+2	5.3E+1	5.0E+00	1.0E+01
Chlordane	57749	2.4E-01	1.5E-2	9.9E-01	5.9E-2	1.2E+2	7.3E+0	1.2E+1	7.3E-1	5.0E+2	3.0E+1	5.0E+1	3.0E+0	2.3E+02	9.5E+02
Chloride	16887006	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Chloroaniline, 2-	95512	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Chloroaniline, 4-	106478	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Chlorobenzene	108907	7.3E+01	1.6E+1	1.0E+02	2.3E+1	3.7E+4	7.9E+3	3.7E+3	7.9E+2	5.2E+4	1.1E+4	5.2E+3	1.1E+3	9.2E+02	1.3E+03
para-Chlorobenzenesulfonic acid	98668	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
1-chloro-1,1-difluoroethane	75683	5.2E+04	1.3E+4	7.4E+04	1.8E+4	2.6E+7	6.3E+6	2.6E+6	6.3E+5	3.7E+7	9.1E+6	3.7E+6	9.1E+5	3.9E+04	5.6E+04
Chloroethane	75003	1.0E+04	4.0E+3	1.5E+04	5.6E+3	5.2E+6	2.0E+6	5.2E+5	2.0E+5	7.4E+6	2.8E+6	7.4E+5	2.8E+5	5.5E+04	7.9E+04
2-Chloroethyl vinyl ether	110758	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Chloroform	67663	1.0E+01	2.1E+0	4.1E+01	8.5E+0	5.1E+3	1.0E+3	5.1E+2	1.0E+2	2.1E+4	4.2E+3	2.1E+3	4.2E+2	1.3E+02	5.2E+02
Chloromethane	74873	3.8E+01	1.8E+1	1.3E+02	6.5E+1	1.9E+4	9.2E+3	1.9E+3	9.2E+2	6.7E+4	3.2E+4	6.7E+3	3.2E+3	3.9E+01	1.4E+02
4-Chloro-3-methylphenol	59507	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
beta-Chloronaphthalene	91587	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
2-Chlorophenol	95578	1.9E+01	3.6E+0	2.7E+01	5.1E+0	9.4E+3	1.8E+3	9.4E+2	1.8E+2	1.3E+4	2.6E+3	1.3E+3	2.6E+2	2.2E+03	3.2E+03
o-Chlorotoluene	95498	7.3E+01	1.4E+1	1.0E+02	2.0E+1	3.7E+4	7.1E+3	3.7E+3	7.1E+2	5.2E+4	1.0E+4	5.2E+3	1.0E+3	9.5E+02	1.4E+03
Chlorpyrifos	2921882	2.1E+00	1.5E-1	3.0E+00	2.1E-1	1.0E+3	7.3E+1	1.0E+2	7.3E+0	1.5E+3	1.0E+2	1.5E+2	1.0E+1	2.0E+00	2.0E+00
Chromium (III)	16065831	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Chromium (VI)	18540299	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Chrysene	218019	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Cobalt	7440484	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Copper	7440508	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Cyanazine	21725462	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Cyanide	57125	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Cyclohexane	110827	6.3E+03	1.8E+3	8.9E+03	2.6E+3	3.1E+6	9.1E+5	3.1E+5	9.1E+4	4.5E+6	1.3E+6	4.5E+5	1.3E+5	1.5E+03	2.1E+03
Cyclohexanone	108941	1.0E+03	2.6E+2	1.5E+03	3.7E+2	5.2E+5	1.3E+5	5.2E+4	1.3E+4	7.4E+5	1.9E+5	7.4E+4	1.9E+4	5.0E+01	5.0E+01
Dacthal	1861321	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dalapon	75990	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
4-4'-DDD	72548	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
4-4'-DDE	72559	2.5E-01	1.2E-2	1.0E+00	4.8E-2	1.3E+2	5.9E+0	1.3E+1	5.9E-1	5.1E+2	2.4E+1	5.1E+1	2.4E+0	5.6E+02	2.3E+03
4-4'-DDT	50293	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV



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		(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/L)	(ug/L)
Decabromodiphenyl ether	1163195	2.6E+01	6.6E-1	3.7E+01	9.5E-1	1.3E+4	3.3E+2	1.3E+3	3.3E+1	1.9E+4	4.7E+2	1.9E+3	4.7E+1	3.0E+04	4.3E+04
Di-n-butyl phthalate	84742	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Di(2-ethylhexyl) adipate	103231	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Di-n-octyl phthalate	117840	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Diacetone alcohol	123422	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Diazinon	333415	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dibenzo(a,h)anthracene	53703	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dibenzofuran	132649	1.0E-01	1.5E-2	1.5E-01	2.2E-2	5.2E+1	7.6E+0	5.2E+0	7.6E-1	7.4E+1	1.1E+1	7.4E+0	1.1E+0	3.7E+02	5.3E+02
Dibromochloromethane	124481	9.9E-01	1.2E-1	4.1E+00	4.8E-1	5.0E+2	5.8E+1	5.0E+1	5.8E+0	2.0E+3	2.4E+2	2.0E+2	2.4E+1	8.0E+01	2.4E+02
Dibromochloropropane	96128	2.1E-01	2.2E-2	3.0E-01	3.1E-2	1.0E+2	1.1E+1	1.0E+1	1.1E+0	1.5E+2	1.5E+1	1.5E+1	1.5E+0	5.1E+01	7.3E+01
Dibromomethane	74953	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Dicamba	1918009	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
1,2-Dichlorobenzene	95501	3.1E+02	5.2E+1	4.5E+02	7.4E+1	1.6E+5	2.6E+4	1.6E+4	2.6E+3	2.2E+5	3.7E+4	2.2E+4	3.7E+3	7.7E+03	1.1E+04
1,3-Dichlorobenzene	541731	3.1E+00	5.2E-1	4.5E+00	7.4E-1	1.6E+3	2.6E+2	1.6E+2	2.6E+1	2.2E+3	3.7E+2	2.2E+2	3.7E+1	8.1E+01	1.2E+02
1,4-Dichlorobenzene	106467	3.5E+00	5.9E-1	1.4E+01	2.4E+0	1.8E+3	2.9E+2	1.8E+2	2.9E+1	7.2E+3	1.2E+3	7.2E+2	1.2E+2	7.5E+01	2.8E+02
3,3'-Dichlorobenzidine	91941	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dichlorodifluoromethane	75718	5.2E+04	1.0E+4	7.4E+04	1.5E+4	2.6E+7	5.2E+6	2.6E+6	5.2E+5	3.7E+7	7.5E+6	3.7E+6	7.5E+5	9.2E+02	1.3E+03
1,1-Dichloroethane	75343	5.2E+02	1.3E+2	7.4E+02	1.8E+2	2.6E+5	6.4E+4	2.6E+4	6.4E+3	3.7E+5	9.2E+4	3.7E+4	9.2E+3	4.3E+03	6.2E+03
1,2-Dichloroethane	107062	9.4E-01	2.3E-1	3.8E+00	9.4E-1	4.7E+2	1.2E+2	4.7E+1	1.2E+1	1.9E+3	4.7E+2	1.9E+2	4.7E+1	4.4E+01	1.8E+02
1,1-Dichloroethylene	75354	2.1E+02	5.3E+1	3.0E+02	7.5E+1	1.0E+5	2.6E+4	1.0E+4	2.6E+3	1.5E+5	3.8E+4	1.5E+4	3.8E+3	3.7E+02	5.3E+02
cis-1,2-Dichloroethylene	156592	3.7E+01	9.2E+0	5.2E+01	1.3E+1	1.8E+4	4.6E+3	1.8E+3	4.6E+2	2.6E+4	6.6E+3	2.6E+3	6.6E+2	4.2E+02	5.9E+02
trans-1,2-Dichloroethylene	156605	7.3E+01	1.8E+1	1.0E+02	2.6E+1	3.7E+4	9.2E+3	3.7E+3	9.2E+2	5.2E+4	1.3E+4	5.2E+3	1.3E+3	3.6E+02	5.2E+02
2,6-Dichloro-4-nitroaniline	99309	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,4-Dichlorophenol	120832	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,4-Dichlorophenoxyacetic acid	94757	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
1,2-Dichloropropane	78875	4.2E+00	9.0E-1	6.0E+00	1.3E+0	2.1E+3	4.5E+2	2.1E+2	4.5E+1	3.0E+3	6.5E+2	3.0E+2	6.5E+1	6.9E+01	9.9E+01
1,3-Dichloropropene	542756	6.1E+00	1.3E+0	2.5E+01	5.5E+0	3.0E+3	6.7E+2	3.0E+2	6.7E+1	1.2E+4	2.7E+3	1.2E+3	2.7E+2	1.6E+01	6.5E+01
Dichlorovos	62737	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dicyclohexyl phthalate	84617	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Dieldrin	60571	5.3E-03	3.4E-4	2.2E-02	1.4E-3	2.6E+0	1.7E-1	2.6E-1	1.7E-2	1.1E+1	6.9E-1	1.1E+0	6.9E-2	1.6E+01	6.6E+01
Diethyl ether	60297	1.3E+04	4.1E+3	1.8E+04	5.9E+3	6.3E+6	2.1E+6	6.3E+5	2.1E+5	8.9E+6	3.0E+6	8.9E+5	3.0E+5	6.7E+05	9.5E+05
Diethyl phthalate	84662	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Diethylene glycol monobutyl ether	112345	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Diisopropyl ether	108203	3.7E+02	8.9E+1	5.3E+02	1.3E+2	1.9E+5	4.5E+4	1.9E+4	4.5E+3	2.7E+5	6.4E+4	2.7E+4	6.4E+3	1.3E+04	1.9E+04
Diisopropylamine	108189	2.1E+02	5.0E+1	3.0E+02	7.2E+1	1.0E+5	2.5E+4	1.0E+4	2.5E+3	1.5E+5	3.6E+4	1.5E+4	3.6E+3	1.0E+05	1.4E+05
Dimethyl phthalate	131113	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
N,N-Dimethylacetamide	127195	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
N,N-Dimethylaniline	121697	2.1E+00	4.2E-1	8.4E+00	1.7E+0	1.0E+3	2.1E+2	1.0E+2	2.1E+1	4.2E+3	8.5E+2	4.2E+2	8.5E+1	1.2E+03	4.8E+03
Dimethylformamide	68122	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,4-Dimethylphenol	105679	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,6-Dimethylphenol	576261	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
3,4-Dimethylphenol	95658	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dimethylsulfoxide	67685	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,4-Dinitrotoluene	121142	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dinoseb	88857	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
1,4-Dioxane	123911	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Diquat	85007	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV



Program Redesign 2009: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW<sub>VI</sub>SLs)

Hazardous Substance	Chemical Abstract Service Number	Residential Indoor Air Criteria <sub>(a)</sub>		Non-Residential Indoor Air Criteria <sub>(a)</sub>		DEEP 5' Residential Soil Gas Criteria <sub>(a)</sub>		SUB-SLAB Residential Soil Gas Criteria <sub>(a)</sub>		DEEP 5' Non-Residential Soil Gas Criteria <sub>(a)</sub>		SUB-SLAB Non-Residential Soil Gas Criteria <sub>(a)</sub>		Residential GW <sub>VI</sub> SL <sub>(c,d)</sub>	Non-Residential GW <sub>VI</sub> SL <sub>(c,d)</sub>
		(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/L)	(ug/L)
Dissolved oxygen	NA	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Diuron	330541	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Endosulfan	115297	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Endothall	145733	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Endrin	72208	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Epichlorohydrin	106898	1.0E+00	2.8E-1	1.5E+00	3.9E-1	5.2E+2	1.4E+2	5.2E+1	1.4E+1	7.4E+2	2.0E+2	7.4E+1	2.0E+1	1.6E+03	2.3E+03
Ethanol	64175	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Ethyl acetate	141786	3.3E+03	9.3E+2	4.8E+03	1.3E+3	1.7E+6	4.6E+5	1.7E+5	4.6E+4	2.4E+6	6.6E+5	2.4E+5	6.6E+4	9.1E+05	1.3E+06
Ethyl tertiary butyl ether (ETBE)	637923	3.9E+02	9.3E+1	5.6E+02	1.3E+2	1.9E+5	4.7E+4	1.9E+4	4.7E+3	2.8E+5	6.7E+4	2.8E+4	6.7E+3	1.3E+04	1.9E+04
Ethylbenzene	100414	7.8E+01	1.8E+1	3.2E+02	7.4E+1	3.9E+4	9.0E+3	3.9E+3	9.0E+2	1.6E+5	3.7E+4	1.6E+4	3.7E+3	7.0E+02	1.9E+03
Ethylene dibromide	106934	4.1E-02	5.3E-3	1.7E-01	2.2E-2	2.0E+1	2.6E+0	2.0E+0	2.6E-1	8.3E+1	1.1E+1	8.3E+0	1.1E+0	4.1E+00	1.7E+01
Ethylene glycol	107211	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Ethylene glycol monobutyl ether	111762	1.4E+04	2.8E+3	1.9E+04	4.0E+3	6.8E+6	1.4E+6	6.8E+5	1.4E+5	9.7E+6	2.0E+6	9.7E+5	2.0E+5	1.2E+04	1.8E+04
Ethylene diamine tetraacetic acid	60004	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Fluoranthene	206440	1.5E+02	1.8E+1	2.1E+02	2.5E+1	7.3E+4	8.8E+3	7.3E+3	8.8E+2	1.0E+5	1.3E+4	1.0E+4	1.3E+3	4.2E+05	6.0E+05
Fluorene	86737	1.5E+02	2.1E+1	2.1E+02	3.1E+1	7.3E+4	1.1E+4	7.3E+3	1.1E+3	1.0E+5	1.5E+4	1.0E+4	1.5E+3	1.1E+05	1.5E+05
Fluorine (soluble fluoride)	7782414	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Formaldehyde	50000	1.9E+00	1.5E+0	7.6E+00	6.2E+0	9.4E+2	7.6E+2	9.4E+1	7.6E+1	3.8E+3	3.1E+3	3.8E+2	3.1E+2	3.1E+02	1.3E+03
Formic acid	64186	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
1-Formylpiperidine	2591868	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Gentian violet	548629	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Glyphosate	1071836	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Heptachlor	76448	1.9E-02	1.2E-3	7.6E-02	5.0E-3	9.4E+0	6.1E-1	9.4E-1	6.1E-2	3.8E+1	2.5E+0	3.8E+0	2.5E-1	5.9E-01	2.4E+00
Heptachlor epoxide	1024573	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
n-Heptane	142825	3.7E+03	8.9E+2	5.2E+03	1.3E+3	1.8E+6	4.5E+5	1.8E+5	4.5E+4	2.6E+6	6.4E+5	2.6E+5	6.4E+4	8.0E+01	1.1E+02
Hexabromobenzene	87821	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Hexachlorobenzene (C-66)	118741	5.3E-02	4.5E-3	2.2E-01	1.9E-2	2.6E+1	2.3E+0	2.6E+0	2.3E-1	1.1E+2	9.3E+0	1.1E+1	9.3E-1	1.9E+00	7.6E+00
Hexachlorobutadiene (C-46)	87683	1.1E+00	1.0E-1	4.5E+00	4.2E-1	5.5E+2	5.2E+1	5.5E+1	5.2E+0	2.3E+3	2.1E+2	2.3E+2	2.1E+1	6.3E+00	2.6E+01
alpha-Hexachlorocyclohexane	319846	1.3E-02	1.1E-3	5.4E-02	4.6E-3	6.6E+0	5.6E-1	6.6E-1	5.6E-2	2.7E+1	2.3E+0	2.7E+0	2.3E-1	5.8E+01	2.4E+02
beta-Hexachlorocyclohexane	319857	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Hexachlorocyclopentadiene (C-56)	77474	2.1E-01	1.9E-2	3.0E-01	2.7E-2	1.0E+2	9.4E+0	1.0E+1	9.4E-1	1.5E+2	1.3E+1	1.5E+1	1.3E+0	5.0E+01	5.0E+01
Hexachloroethane	67721	3.7E+00	3.8E-1	5.2E+00	5.4E-1	1.8E+3	1.9E+2	1.8E+2	1.9E+1	2.6E+3	2.7E+2	2.6E+2	2.7E+1	4.4E+01	6.2E+01
n-Hexane	110543	7.3E+02	2.1E+2	1.0E+03	3.0E+2	3.7E+5	1.0E+5	3.7E+4	1.0E+4	5.2E+5	1.5E+5	5.2E+4	1.5E+4	2.4E+03	3.5E+03
2-Hexanone	591786	4.2E+01	1.0E+1	6.0E+01	1.5E+1	2.1E+4	5.1E+3	2.1E+3	5.1E+2	3.0E+4	7.3E+3	3.0E+3	7.3E+2	2.0E+04	2.9E+04
Indeno(1,2,3-cd)pyrene	193395	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Iron	7439896	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Isobutyl alcohol	78831	1.6E+03	5.2E+2	2.2E+03	7.4E+2	7.8E+5	2.6E+5	7.8E+4	2.6E+4	1.1E+6	3.7E+5	1.1E+5	3.7E+4	5.6E+06	8.0E+06
Isophorone	78591	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Isopropyl alcohol	67630	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Isopropyl benzene	98828	4.2E+02	8.4E+1	6.0E+02	1.2E+2	2.1E+5	4.2E+4	2.1E+4	4.2E+3	3.0E+5	6.0E+4	3.0E+4	6.0E+3	1.3E+03	1.8E+03
Lead	7439921	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Lindane	58899	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Lithium	7439932	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Magnesium	7439954	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Manganese	7439965	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Mercury (Elemental)	Varies	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Methane	74828	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID



Program Redesign 2009: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW<sub>V</sub>SLs)

Hazardous Substance	Chemical Abstract Service Number	Residential Indoor Air Criteria <sup>(a)</sup>		Non-Residential Indoor Air Criteria <sup>(a)</sup>		DEEP 5' Residential Soil Gas Criteria <sup>(a)</sup>		SUB-SLAB Residential Soil Gas Criteria <sup>(a)</sup>		DEEP 5' Non-Residential Soil Gas Criteria <sup>(a)</sup>		SUB-SLAB Non-Residential Soil Gas Criteria <sup>(a)</sup>		Residential GW <sub>V</sub> SL <sup>(c,d)</sup>	Non-Residential GW <sub>V</sub> SL <sup>(c,d)</sup>
		(ug/m <sup>3</sup> )	(ppbv) <sup>(b)</sup>	(ug/m <sup>3</sup> )	(ppbv) <sup>(b)</sup>	(ug/m <sup>3</sup> )	(ppbv) <sup>(b)</sup>	(ug/m <sup>3</sup> )	(ppbv) <sup>(b)</sup>	(ug/m <sup>3</sup> )	(ppbv) <sup>(b)</sup>	(ug/m <sup>3</sup> )	(ppbv) <sup>(b)</sup>	(ug/L)	(ug/L)
		ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Methanol	67561	3.4E+03	2.6E+3	4.8E+03	3.7E+3	1.7E+6	1.3E+6	1.7E+5	1.3E+5	2.4E+6	1.8E+6	2.4E+5	1.8E+5	9.3E+05	1.3E+06
Methoxychlor	72435	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
2-Methoxyethanol	109864	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2-Methyl-4-chlorophenoxyacetic acid	94746	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2-Methyl-4,6-dinitrophenol	534521	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
N-Methyl-morpholine	109024	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Methyl parathion	298000	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
4-Methyl-2-pentanone (MIBK)	108101	3.1E+03	7.6E+2	4.5E+03	1.1E+3	1.6E+6	3.8E+5	1.6E+5	3.8E+4	2.2E+6	5.5E+5	2.2E+5	5.5E+4	1.2E+06	1.7E+06
Methyl-tert-butyl ether (MTBE)	1634044	3.1E+03	8.7E+2	4.5E+03	1.2E+3	1.6E+6	4.3E+5	1.6E+5	4.3E+4	2.2E+6	6.2E+5	2.2E+5	6.2E+4	2.3E+05	3.3E+05
N-Methylaniline	100618	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Methylcyclopentane	96377	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
4,4'-Methylene-bis-2-chloroaniline	101144	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Methylene chloride	75092	5.2E+01	2.5E+1	2.1E+02	1.0E+2	2.6E+4	1.3E+4	2.6E+3	1.3E+3	1.1E+5	5.1E+4	1.1E+4	5.1E+3	1.0E+03	4.1E+03
2-Methylnaphthalene	91576	1.0E+01	1.8E+0	1.5E+01	2.6E+0	5.2E+3	9.0E+2	5.2E+2	9.0E+1	7.4E+3	1.3E+3	7.4E+2	1.3E+2	9.7E+02	1.4E+03
Methylphenols	1319773	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Metolachlor	51218452	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Metribuzin	21087649	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Mirex	2385855	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Molybdenum	7439987	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Naphthalene	91203	2.0E+00	3.9E-1	4.5E+00	8.5E-1	1.0E+3	1.9E+2	1.0E+2	1.9E+1	2.2E+3	4.3E+2	2.2E+2	4.3E+1	2.0E+02	4.3E+02
Nickel	7440020	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Nitrate	14797558	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Nitrite	14797650	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Nitrobenzene	98953	6.1E-01	1.2E-1	2.5E+00	4.9E-1	3.0E+2	6.0E+1	3.0E+1	6.0E+0	1.2E+3	2.5E+2	1.2E+2	2.5E+1	1.2E+03	4.8E+03
2-Nitrophenol	88755	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
n-Nitroso-di-n-propylamine	621647	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
N-Nitrosodiphenylamine	86306	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Oxamyl	23135220	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Oxo-hexyl acetate	88230357	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Pendimethalin	40487421	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Pentachlorobenzene	608935	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Pentachloronitrobenzene	82688	1.1E+01	9.5E-1	1.6E+01	1.4E+0	5.7E+3	4.8E+2	5.7E+2	4.8E+1	8.2E+3	6.8E+2	8.2E+2	6.8E+1	2.0E+01	2.6E+01
Pentachlorophenol	87865	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Pentane	109660	1.9E+04	6.4E+3	2.7E+04	9.1E+3	9.4E+6	3.2E+6	9.4E+5	3.2E+5	1.3E+7	4.5E+6	1.3E+6	4.5E+5	6.9E+02	9.9E+02
2-Pentene	109682	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Perchlorate	14797730	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
pH	NA	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Phenanthrene	85018	1.0E-01	1.4E-2	1.5E-01	2.0E-2	5.2E+1	7.2E+0	5.2E+0	7.2E-1	7.4E+1	1.0E+1	7.4E+0	1.0E+0	2.1E+02	3.0E+02
Phenol	108952	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Phosphorus (total)	7723140	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Phthalic acid	88993	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Phthalic anhydride	85449	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Picloram	1918021	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Piperidine	110894	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Polybrominated biphenyls	67774327	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Polychlorinated biphenyls (PCBs)	1336363	4.1E-02	3.7E-3	1.7E-01	1.5E-2	2.0E+1	1.8E+0	2.0E+0	1.8E-1	8.3E+1	7.5E+0	8.3E+0	7.5E-1	4.5E+00	1.8E+01
Prometon	1610180	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Propachlor	1918167	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV



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		(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/L)	(ug/L)
Propazine	139402	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Propionic acid	79094	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Propyl alcohol	71238	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
n-Propylbenzene	103651	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Propylene glycol	57556	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Pyrene	129000	1.0E+02	1.3E+1	1.5E+02	1.8E+1	5.2E+4	6.3E+3	5.2E+3	6.3E+2	7.4E+4	9.0E+3	7.4E+3	9.0E+2	4.4E+05	6.3E+05		
Pyridine	110861	3.7E+00	1.1E+0	5.2E+00	1.6E+0	1.8E+3	5.6E+2	1.8E+2	5.6E+1	2.6E+3	8.1E+2	2.6E+2	8.1E+1	2.4E+01	3.5E+01		
Selenium	7782492	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Silver	7440224	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Silvex (2,4,5-TP)	93721	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Simazine	122349	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Sodium	17341252	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Sodium azide	26628228	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Sodium bromide	7647156	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Strontium	7440246	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Styrene	100425	4.3E+01	1.0E+1	1.7E+02	4.1E+1	2.1E+4	5.0E+3	2.1E+3	5.0E+2	8.7E+4	2.0E+4	8.7E+3	2.0E+3	7.2E+02	2.9E+03		
Sulfate	14808798	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Tebuthiuron	34014181	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
2,3,7,8-Tetrabromodibenzo-p-dioxin	50585416	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
1,2,4,5-Tetrachlorobenzene	95943	1.0E+00	1.2E-1	1.5E+00	1.7E-1	5.2E+2	5.9E+1	5.2E+1	5.9E+0	7.4E+2	8.5E+1	7.4E+1	8.5E+0	4.0E+01	5.8E+01		
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
1,1,1,2-Tetrachloroethane	630206	3.3E+00	4.8E-1	1.3E+01	2.0E+0	1.6E+3	2.4E+2	1.6E+2	2.4E+1	6.7E+3	9.8E+2	6.7E+2	9.8E+1	6.4E+01	2.6E+02		
1,1,2,2-Tetrachloroethane	79345	4.2E-01	6.1E-2	1.7E+00	2.5E-1	2.1E+2	3.1E+1	2.1E+1	3.1E+0	8.6E+2	1.2E+2	8.6E+1	1.2E+1	5.7E+01	2.3E+02		
Tetrachloroethylene	127184	4.2E+01	6.2E+0	1.7E+02	2.5E+1	2.1E+4	3.1E+3	2.1E+3	3.1E+2	8.6E+4	1.3E+4	8.6E+3	1.3E+3	1.1E+02	4.3E+02		
Tetrahydrofuran	109999	1.2E+01	4.1E+0	2.7E+01	9.1E+0	6.1E+3	2.1E+3	6.1E+2	2.1E+2	1.3E+4	4.5E+3	1.3E+3	4.5E+2	9.0E+01	1.3E+02		
1,1,3,3-Tetramethylurea	632224	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Tetranitromethane	509148	1.6E-03	2.0E-4	6.6E-03	8.3E-4	8.1E-1	1.0E-1	8.1E-2	1.0E-2	3.3E+0	4.1E-1	3.3E-1	4.1E-2	1.0E+02	1.0E+02		
Thallium	7440280	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Toluene	108883	5.2E+03	1.4E+3	7.4E+03	2.0E+3	2.6E+6	6.9E+5	2.6E+5	6.9E+4	3.7E+6	9.9E+5	3.7E+5	9.9E+4	3.6E+04	5.2E+04		
p-Toluidine	106490	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Total dissolved solids	NA	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Toxaphene	8001352	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Triallate	2303175	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	
Tributylamine	102829	7.3E+00	9.6E-1	1.0E+01	1.4E+0	3.7E+3	4.8E+2	3.7E+2	4.8E+1	5.2E+3	6.9E+2	5.2E+2	6.9E+1	6.1E+01	8.7E+01		
1,2,3-Trichlorobenzene	87616	2.8E+01	3.8E+0	4.0E+01	5.4E+0	1.4E+4	1.9E+3	1.4E+3	1.9E+2	2.0E+4	2.7E+3	2.0E+3	2.7E+2	1.0E+03	1.5E+03		
1,2,4-Trichlorobenzene	120821	4.2E+04	5.6E+3	6.0E+04	8.0E+3	2.1E+7	2.8E+6	2.1E+6	2.8E+5	3.0E+7	4.0E+6	3.0E+6	4.0E+5	1.4E+06	2.0E+06		
1,1,1-Trichloroethane	71556	6.3E+03	1.1E+3	8.9E+03	1.6E+3	3.1E+6	5.7E+5	3.1E+5	5.7E+4	4.5E+6	8.2E+5	4.5E+5	8.2E+4	1.7E+04	2.4E+04		
1,1,2-Trichloroethane	79005	1.5E+00	2.8E-1	6.2E+00	1.1E+0	7.6E+2	1.4E+2	7.6E+1	1.4E+1	3.1E+3	5.7E+2	3.1E+2	5.7E+1	7.7E+01	3.2E+02		
Trichloroethylene	79016	1.4E+01	2.7E+0	5.8E+01	1.1E+1	7.2E+3	1.3E+3	7.2E+2	1.3E+2	2.9E+4	5.4E+3	2.9E+3	5.4E+2	6.5E+01	2.6E+02		
Trichlorofluoromethane	75694	5.9E+04	1.0E+4	8.4E+04	1.5E+4	2.9E+7	5.2E+6	2.9E+6	5.2E+5	4.2E+7	7.5E+6	4.2E+6	7.5E+5	2.1E+04	3.0E+04		
2,4,5-Trichlorophenol	95954	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
2,4,6-Trichlorophenol	88062	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
1,2,3-Trichloropropane	96184	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	2.0E+04	2.6E+3	2.8E+04	3.7E+3	9.9E+6	1.3E+6	9.9E+5	1.3E+5	1.4E+7	1.8E+6	1.4E+6	1.8E+5	1.7E+03	2.5E+03		
Triethanolamine	102716	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
Triethylene glycol	112276	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	
3-Trifluoromethyl-4-nitrophenol	88302	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	



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		(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/m <sup>3</sup> )	(ppbv) <sub>(b)</sub>	(ug/L)	(ug/L)
Trifluralin	1582098	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
2,2,4-Trimethyl pentane	540841	3.7E+03	7.8E+2	5.2E+03	1.1E+3	1.8E+6	3.9E+5	1.8E+5	3.9E+4	2.6E+6	5.6E+5	2.6E+5	5.6E+4	5.4E+01	7.7E+01
2,4,4-Trimethyl-2-pentene	107404	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
1,2,3-Trimethylbenzene	526738	2.3E+02	4.7E+1	3.3E+02	6.7E+1	1.1E+5	2.3E+4	1.1E+4	2.3E+3	1.6E+5	3.3E+4	1.6E+4	3.3E+3	2.4E+03	3.5E+03
1,2,4-Trimethylbenzene	95636	2.3E+02	4.7E+1	3.3E+02	6.7E+1	1.1E+5	2.3E+4	1.1E+4	2.3E+3	1.6E+5	3.3E+4	1.6E+4	3.3E+3	1.8E+03	2.6E+03
1,3,5-Trimethylbenzene	108678	2.3E+02	4.7E+1	3.3E+02	6.7E+1	1.1E+5	2.3E+4	1.1E+4	2.3E+3	1.6E+5	3.3E+4	1.6E+4	3.3E+3	1.4E+03	2.1E+03
Triphenyl phosphate	115866	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
tris(2,3-Dibromopropyl)phosphate	126727	4.6E-02	1.6E-3	1.9E-01	6.6E-3	2.3E+1	8.0E-1	2.3E+0	8.0E-2	9.4E+1	3.3E+0	9.4E+0	3.3E-1	7.1E+01	2.9E+02
Urea	57136	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Vanadium	7440622	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Vinyl acetate	108054	2.1E+02	5.9E+1	3.0E+02	8.5E+1	1.0E+5	3.0E+4	1.0E+4	3.0E+3	1.5E+5	4.2E+4	1.5E+4	4.2E+3	1.9E+04	2.7E+04
Vinyl chloride	75014	2.8E+00	1.1E+0	1.1E+01	4.4E+0	1.4E+3	5.4E+2	1.4E+2	5.4E+1	5.6E+3	2.2E+3	5.6E+2	2.2E+2	4.8E+00	1.9E+01
White phosphorus	12185103	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Xylenes	1330207	1.0E+02	2.4E+1	1.5E+02	3.4E+1	5.2E+4	1.2E+4	5.2E+3	1.2E+3	7.4E+4	1.7E+4	7.4E+3	1.7E+3	1.0E+04	1.0E+04
Zinc	7440666	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV

a) The IAC and SGC presented in this table are health-based values. The applicable IAC and SGC are based on the higher of the health-based value and the appropriate analytical reporting limit.

b) Conversion from ug/m<sup>3</sup> to parts per billion by volume (ppbv) uses this equation: ppbv = ([ug/m<sup>3</sup>] x (298.15°K)) / (12.187 x Molecular Weight(g/mol))

c) If the calculated criterion is below the analytical target detection limit (TDL), the criterion defaults to the target detection limit.

d) If the calculated criterion is below State of Michigan Safe Drinking Water Standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005, the criterion defaults to the Safe Drinking Water Standard.

"NLV" means a hazardous substance is "Not Likely to Volatilize". This designation is given to any hazardous substance with a Henry's Law Constant of less than 1.0 x 10<sup>-5</sup> atm-m<sup>3</sup>/mol. However, any hazardous substance detected above a TDL in the vapor phase in soil gas or indoor air shall be considered a VOC. A hazardous substance may not be excluded from consideration as a VOC if detection limits exceed the TDL in the vapor phase.

"ID" means "Insufficient Data" to develop a criterion at the date of publication of these tables.