

Tier 1 ESLs ¹

2019 (Rev. 2)

Based on a generic conceptual site model designed for use at most sites²

Chemicals	CAS No.	Groundwater (µg/L)	Soil (mg/kg)	Subslab / Soil Gas (µg/m ³)	Indoor Air (µg/m ³)
Acenaphthene [PAH]	83-32-9	1.5E+01	1.2E+01	1.7E+04	5.1E+02
Acenaphthylene [PAH]	208-96-8	1.5E+01	6.4E+00	--	--
Acetone	67-64-1	1.5E+03	9.2E-01	1.0E+06	3.1E+04
Aldrin	309-00-2	1.4E-04	2.4E-03	1.9E-02	5.7E-04
Anthracene [PAH]	120-12-7	7.3E-01	1.9E+00	--	--
Antimony	7440-36-0	6.0E+00	1.1E+01	--	--
Arsenic	7440-38-2	1.0E+01	6.7E-02	--	--
Barium	7440-39-3	1.0E+03	3.9E+02	--	--
Benzene	71-43-2	4.2E-01	2.5E-02	3.2E+00	9.7E-02
Benzo[a]anthracene [PAH]	56-55-3	1.7E-02	6.3E-01	3.1E-01	9.2E-03
Benzo[b]fluoranthene [PAH]	205-99-2	4.9E-02	1.1E+00	--	--
Benzo[k]fluoranthene [PAH]	207-08-9	4.9E-02	2.8E+00	--	--
Benzo[g,h,i]perylene [PAH]	191-24-2	1.0E-01	2.5E+00	--	--
Benzo[a]pyrene [PAH]	50-32-8	1.4E-02	1.1E-01	--	--
Beryllium	7440-41-7	2.7E+00	5.0E+00	--	--
1,1-Biphenyl	92-52-4	5.0E-01	4.2E-01	1.4E+01	4.2E-01
Bis(2-chloroethyl) ether	111-44-4	6.3E-03	3.4E-05	1.3E-01	4.0E-03
Bis(2-chloro-1-methylethyl) ether	108-60-1	3.6E-01	5.1E-03	9.4E+00	2.8E-01
Bis(2-ethylhexyl) phthalate	117-81-7	4.0E+00	8.0E-01	--	--
Boron	7440-42-8	1.6E+00	1.2E+02	--	--
Bromodichloromethane	75-27-4	8.7E-01	1.6E-02	2.5E+00	7.6E-02
Bromoform (Tribromomethane)	75-25-2	8.0E+01	6.9E-01	8.5E+01	2.6E+00
Bromomethane	74-83-9	7.5E+00	3.6E-01	1.7E+02	5.2E+00
Cadmium (soil)	7440-43-9	--	1.9E+00	--	--
Cadmium (water)	7440-43-9	2.5E-01	--	--	--
Carbon tetrachloride	56-23-5	4.3E-01	7.6E-02	1.6E+01	4.7E-01
Chlordane	12789-03-6	5.9E-04	8.5E-03	2.8E-01	8.3E-03
p-Chloroaniline	106-47-8	3.6E-01	6.7E-03	--	--
Chlorobenzene	108-90-7	2.5E+01	1.4E+00	1.7E+03	5.2E+01
Chloroethane	75-00-3	1.6E+01	1.2E+00	3.5E+05	1.0E+04
Chloroform	67-66-3	8.1E-01	2.3E-02	4.1E+00	1.2E-01
Chloromethane	74-87-3	1.9E+02	1.1E+01	3.1E+03	9.4E+01
2-Chlorophenol	95-57-8	1.8E-01	1.2E-02	6.3E+02	1.9E+01
Chromium (total)	7440-47-3	5.0E+01	1.6E+02	--	--
Chromium III	16065-83-1	1.8E+02	1.2E+05	--	--
Chromium VI	18540-29-9	2.0E-02	3.0E-01	--	--
Chrysene [PAH]	218-01-9	4.9E-02	2.2E+00	--	--
Cobalt	7440-48-4	3.0E+00	2.3E+01	--	--
Copper	7440-50-8	3.1E+00	1.8E+02	--	--
Cyanide	57-12-5	1.0E+00	3.4E-03	2.8E+01	8.3E-01
Dibenz[a,h]anthracene [PAH]	53-70-3	2.5E-02	1.1E-01	--	--
Dibromochloromethane	124-48-1	3.4E+01	3.5E-01	--	--
1,2-dibromo-3-chloropropane	96-12-8	2.8E-02	5.9E-04	5.6E-03	1.7E-04
1,2-Dibromoethane	106-93-4	5.0E-02	5.3E-04	1.6E-01	4.7E-03
1,2-Dichlorobenzene	95-50-1	1.4E+01	1.0E+00	7.0E+03	2.1E+02
1,3-Dichlorobenzene	541-73-1	6.5E+01	6.0E+00	--	--
1,4-Dichlorobenzene	106-46-7	2.6E+00	2.0E-01	8.5E+00	2.6E-01
3,3-Dichlorobenzidine	91-94-1	4.6E-02	2.5E-02	--	--
DDD	72-54-8	8.4E-04	2.7E+00	--	--
DDE	72-55-9	5.9E-04	3.3E-01	9.6E-01	2.9E-02
DDT	50-29-3	5.9E-04	1.1E-03	--	--
1,1-Dichloroethane	75-34-3	5.0E+00	2.0E-01	5.8E+01	1.8E+00
1,2-Dichloroethane	107-06-2	5.0E-01	7.0E-03	3.6E+00	1.1E-01
1,1-Dichloroethene	75-35-4	3.2E+00	5.4E-01	2.4E+03	7.3E+01
cis-1,2-Dichloroethene	156-59-2	6.0E+00	1.9E-01	2.8E+02	8.3E+00
trans-1,2-Dichloroethene	156-60-5	1.0E+01	6.5E-01	2.8E+03	8.3E+01
2,4-Dichlorophenol	120-83-2	3.0E-01	7.5E-03	4.7E+04	1.4E+03



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1,2-Dichloropropane	78-87-5	2.3E+00	6.5E-02	9.4E+00	2.8E-01
1,3-Dichloropropene	542-75-6	5.0E-01	1.7E-02	5.8E+00	1.8E-01
Dieldrin	60-57-1	1.4E-04	4.6E-04	2.0E-02	6.1E-04
Diethyl phthalate	84-66-2	1.5E+00	2.5E-02	--	--
Dimethyl phthalate	131-11-3	1.5E+00	3.5E-02	--	--
2,4-Dimethylphenol	105-67-9	1.0E+02	8.1E+00	3.3E+01	1.0E+00
2,4-Dinitrophenol	51-28-5	3.9E+01	3.0E+00	--	--
2,4-Dinitrotoluene	121-14-2	2.4E-01	2.3E-02	--	--
1,4-Dioxane	123-91-1	3.8E-01	1.7E-04	1.2E+01	3.6E-01
Dioxin (2,3,7,8-TCDD)	1746-01-6	1.4E-08	4.8E-06	2.5E-06	7.4E-08
Endosulfan	115-29-7	8.7E-03	9.8E-03	--	--
Endrin	72-20-8	2.3E-03	1.1E-03	--	--
Ethylbenzene	100-41-4	3.5E+00	4.3E-01	3.7E+01	1.1E+00
Fluoranthene [PAH]	206-44-0	8.0E+00	6.9E-01	--	--
Fluorene [PAH]	86-73-7	3.9E+00	6.0E+00	--	--
Heptachlor	76-44-8	2.1E-04	1.2E-01	7.2E-02	2.2E-03
Heptachlor epoxide	1024-57-3	1.1E-04	1.8E-04	3.6E-02	1.1E-03
Hexachlorobenzene	118-74-1	7.7E-04	8.0E-04	1.8E-01	5.5E-03
Hexachlorobutadiene	87-68-3	1.4E-01	2.8E-02	4.3E+00	1.3E-01
g-Hexachlorocyclohexane (Lindane)	58-89-9	1.6E-02	7.4E-03	--	--
Hexachloroethane	67-72-1	3.3E-01	1.9E-02	8.5E+00	2.6E-01
Indeno[1,2,3-c,d]pyrene [PAH]	193-39-5	4.9E-02	4.8E-01	--	--
Lead	7439-92-1	2.5E+00	3.2E+01	--	--
Mercury (elemental)	7439-97-6	2.5E-02	1.3E+01	1.0E+00	3.1E-02
Methoxychlor	72-43-5	3.0E-03	1.3E-02	--	--
Methylene chloride	75-09-2	5.0E+00	1.2E-01	3.4E+01	1.0E+00
Methyl ethyl ketone	78-93-3	5.6E+03	6.1E+00	1.7E+05	5.2E+03
Methyl isobutyl ketone	108-10-1	1.2E+02	3.6E-01	1.4E+04	4.2E+02
Methyl mercury	22967-92-6	3.0E-03	3.4E-02	--	--
2-Methylnaphthalene	91-57-6	2.1E+00	8.8E-01	2.3E+03	6.8E+01
Methyl tertiary butyl ether (MTBE)	1634-04-4	5.0E+00	2.8E-02	3.6E+02	1.1E+01
Molybdenum	7439-98-7	1.0E+02	6.9E+00	--	--
Naphthalene [PAH]	91-20-3	1.7E-01	4.2E-02	2.8E+00	8.3E-02
Nickel	7440-02-0	8.2E+00	8.6E+01	--	--
Pentachlorophenol	87-86-5	1.0E+00	1.3E-02	--	--
Perchlorate	7790-98-9	6.0E+00	5.5E+01	--	--
Petroleum - Gasoline	--	1.0E+02	1.0E+02	3.3E+03	1.0E+02
Petroleum - Stoddard Solvent	--	1.0E+02	1.0E+02	1.1E+04	3.3E+02
Petroleum - Jet Fuel	--	1.0E+02	1.0E+02	1.1E+04	3.3E+02
Petroleum - Diesel	--	1.0E+02	2.6E+02	8.9E+03	2.7E+02
Petroleum - HOPs	--	1.0E+02	--	--	--
Petroleum - Motor Oil	--	--	1.6E+03	--	--
Phenanthrene [PAH]	85-01-8	4.6E+00	7.8E+00	1.8E+03	5.5E+01
Phenol	108-95-2	5.0E+00	1.6E-01	5.2E+03	1.6E+02
Polychlorinated biphenyls (PCBs)	1336-36-3	1.7E-04	2.3E-01	1.6E-01	4.9E-03
Pyrene [PAH]	129-00-0	2.0E+00	4.5E+01	--	--
Selenium	7782-49-2	5.0E-01	2.4E+00	--	--
Silver	7440-22-4	1.9E-01	2.5E+01	--	--
Styrene	100-42-5	1.0E+01	9.2E-01	3.1E+04	9.4E+02
tert-Butyl alcohol	75-65-0	1.2E+01	7.5E-02	--	--
1,1,1,2-Tetrachloroethane	630-20-6	5.7E-01	1.7E-02	1.3E+01	3.8E-01
1,1,2,2-Tetrachloroethane	79-34-5	1.0E+00	1.8E-02	1.6E+00	4.8E-02
Tetrachloroethene	127-18-4	6.4E-01	8.0E-02	1.5E+01	4.6E-01
Thallium	7440-28-0	2.0E+00	7.8E-01	--	--
Toluene	108-88-3	4.0E+01	3.2E+00	1.0E+04	3.1E+02
Toxaphene	8001-35-2	2.0E-04	5.1E-01	--	--
1,2,4-Trichlorobenzene	120-82-1	5.0E+00	1.2E+00	7.0E+01	2.1E+00



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Chemicals	CAS No.	Groundwater (µg/L)	Soil (mg/kg)	Subslab / Soil Gas (µg/m ³)	Indoor Air (µg/m ³)
1,1,1-Trichloroethane	71-55-6	6.2E+01	7.0E+00	3.5E+04	1.0E+03
1,1,2-Trichloroethane	79-00-5	5.0E+00	7.6E-02	5.8E+00	1.8E-01
Trichloroethene	79-01-6	1.2E+00	8.5E-02	1.6E+01	4.8E-01
2,4,5-Trichlorophenol	95-95-4	1.1E+01	2.9E+00	--	--
2,4,6-Trichlorophenol	88-06-2	6.3E-01	4.0E-02	1.0E+01	3.0E-01
1,2,3-Trichloropropane	96-18-4	5.0E-03	1.1E-04	1.0E+01	3.1E-01
Vanadium	7440-62-2	1.9E+01	1.8E+01	--	--
Vinyl chloride	75-01-4	8.6E-03	1.5E-03	3.2E-01	9.5E-03
Xylenes	1330-20-7	2.0E+01	2.1E+00	3.5E+03	1.0E+02
Zinc	7440-66-6	8.1E+01	3.4E+02	--	--

Notes:

1 - ESLs are developed based on methodologies discussed in the User's Guide. Evaluation of laboratory detection limits and naturally occurring background or ambient concentrations should be independently conducted. See User's Guide Chapter 12 (Additional Considerations) for further information.

2 - Generic Conceptual Site Model - See User's Guide Chapter 2. Input settings are:

- Land Use = Residential
- Groundwater Use = Drinking Water Resource
- MCL Priority over Risk-Based Levels = Yes
- Discharge to Surface Water = Saltwater & Freshwater
- Vegetation Level = Substantial
- Soil Exposure Depth = Shallow

Abbreviations:

- DDD - Dichlorodiphenyldichloroethane
- DDE - Dichlorodiphenyldichloroethene
- DDT - Dichlorodiphenyltrichloroethane
- HOPs - Hydrocarbon Oxidation Products (biodegradation metabolites and photo-oxidation products of petroleum hydrocarbons). See User's Guide Chapter 4 for further information.
- PAH - Polycyclic aromatic hydrocarbon
- TCDD - Tetrachlorodibenzodioxin