

Users are advised to consult the Canadian Environmental Quality Guidelines introductory text, factsheet, and/or protocols for specific information and implementation guidance pertaining to each environmental quality guideline.

|                                                                                |                                                                    | Soil Quality Guidelines<br>for the Protection of Environmental and Human Health |                                     |                                     |                                     |      |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------|
|                                                                                |                                                                    | Concentration<br>(mg/kg dry weight)                                             | Concentration<br>(mg/kg dry weight) | Concentration<br>(mg/kg dry weight) | Concentration<br>(mg/kg dry weight) | Date |
| Chemical name                                                                  | Chemical groups                                                    | Agricultural                                                                    | Residential/ parkland               | Commercial                          | Industrial                          |      |
| 1,1,1-Trichloroethane<br><b>CASRN 71556</b>                                    | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethanes  | 0.1                                                                             | 5                                   | 50                                  | 50                                  | 1991 |
| 1,1,1-Trichloroethane                                                          | Organic<br>Halogenated aliphatic compounds<br>Halogenated methanes | 0.1                                                                             | 5                                   | 50                                  | 50                                  | 1991 |
| 1,1,2,2- Tetrachloroethene<br>PCE (Tetrachloroethylene)<br><b>CASRN 127184</b> | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethenes  | 0.1                                                                             | 0.2                                 | 0.5                                 | 0.6                                 | 1997 |
| 1,1,2,2-Tetrachloroethane<br><b>CASRN 79345</b>                                | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethanes  | 0.1                                                                             | 5                                   | 50                                  | 50                                  | 1991 |
| 1,1,2-Trichloroethane                                                          | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethanes  | 0.1                                                                             | 5                                   | 50                                  | 50                                  | 1991 |
| 1,1,2-Trichloroethane                                                          | Organic<br>Halogenated aliphatic compounds<br>Halogenated methanes | 0.1                                                                             | 5                                   | 50                                  | 50                                  | 1991 |
| 1,1,2-Trichloroethene<br>TCE (Trichloroethylene)<br><b>CASRN 79-01-6</b>       | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethenes  | 0.01                                                                            | 0.01                                | 0.01                                | 0.01                                | 2006 |
| 1,1-Dichloroethane                                                             | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethanes  | 0.1                                                                             | 5                                   | 50                                  | 50                                  | 1991 |
| 1,1-Dichloroethene<br>Dichloroethylene                                         | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethenes  | 0.1                                                                             | 5                                   | 50                                  | 50                                  | 1991 |

|                                                   |                                                                    |      |   |    |    |      |
|---------------------------------------------------|--------------------------------------------------------------------|------|---|----|----|------|
| 1,2,3,4-Tetrachlorobenzene<br><b>CASRN 634662</b> | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes   | 0.05 | 2 | 10 | 10 | 1991 |
| 1,2,3,5-Tetrachlorobenzene                        | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes   | 0.05 | 2 | 10 | 10 | 1991 |
| 1,2,3-Trichlorobenzene<br><b>CASRN 87616</b>      | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes   | 0.05 | 2 | 10 | 10 | 1991 |
| 1,2,4,5-Tetrachlorobenzene                        | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes   | 0.05 | 2 | 10 | 10 | 1991 |
| 1,2,4-Trichlorobenzene<br><b>CASRN 120801</b>     | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes   | 0.05 | 2 | 10 | 10 | 1991 |
| 1,2-Dichlorobenzene<br><b>CASRN 95501</b>         | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes   | 0.1  | 1 | 10 | 10 | 1991 |
| 1,2-Dichloroethane<br><b>CASRN 1070602</b>        | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethanes  | 0.1  | 5 | 50 | 50 | 1991 |
| 1,2-Dichloroethene                                | Organic<br>Halogenated aliphatic compounds<br>Chlorinated ethenes  | 0.1  | 5 | 50 | 50 | 1991 |
| 1,2-Dichloropropane                               | Organic<br>Halogenated aliphatic compounds<br>Halogenated methanes | 0.1  | 5 | 50 | 50 | 1991 |
| 1,2-Dichloropropene (cis and trans)               | Organic<br>Halogenated aliphatic compounds<br>Halogenated methanes | 0.1  | 5 | 50 | 50 | 1991 |
| 1,3,5-Trichlorobenzene                            | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes   | 0.05 | 2 | 10 | 10 | 1991 |
| 1,3-Dichlorobenzene<br><b>CASRN 541731</b>        | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes   | 0.1  | 1 | 10 | 10 | 1991 |

|                                            |                                                                       |                   |                   |                   |                   |      |
|--------------------------------------------|-----------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|------|
| 1,4-Dichlorobenzene<br><b>CASRN 106467</b> | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes      | 0.1               | 1                 | 10                | 10                | 1991 |
| 2,3,4,6-Tetrachlorophenol                  | Organic<br>Monocyclic aromatic compounds<br>Chlorinated phenols       | 0.05              | 0.5               | 5                 | 5                 | 1991 |
| 2,4,6-Trichlorophenol                      | Organic<br>Monocyclic aromatic compounds<br>Chlorinated phenols       | 0.05              | 0.5               | 5                 | 5                 | 1991 |
| 2,4-Dichlorophenol                         | Organic<br>Monocyclic aromatic compounds<br>Chlorinated phenols       | 0.05              | 0.5               | 5                 | 5                 | 1991 |
| Acenaphthene<br>PAHs                       | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Acenaphthylene<br>PAHs                     | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Aliphatics nonchlorinated (each)           | Organic<br>Non-halogenated aliphatic compounds                        | 0.3               | <i>No data</i>    | <i>No data</i>    | <i>No data</i>    | 1991 |
| Anthracene<br>PAHs                         | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Antimony                                   | Inorganic<br>Metals                                                   | 20                | 20                | 40                | 40                | 1991 |
| Arsenic<br><b>CASRN none</b>               | Inorganic<br>Metals                                                   | 12                | 12                | 12                | 12                | 1997 |
| Barium                                     | Inorganic<br>Metals                                                   | 750               | 500               | 2000              | 2000              | 2013 |
| Benz(a)anthracene<br>PAHs                  | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Benzene<br><b>CASRN 71432</b>              | Organic<br>Monocyclic aromatic compounds                              | Table             | Table             | Table             | Table             | 2004 |

|                                                           |                                                                       |                   |                   |                   |                   |      |
|-----------------------------------------------------------|-----------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|------|
| Benzo(a)pyrene<br>PAHs                                    | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Benzo(b)fluoranthene<br>PAHs                              | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Benzo(k)fluoranthene<br>PAHs                              | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Beryllium                                                 | Inorganic<br>Metals                                                   | 4                 | 4                 | 8                 | 8                 | 2015 |
| Boron                                                     | Inorganic<br>Metals                                                   | 2                 | No data           | No data           | No data           | 1991 |
| Cadmium<br><br><b>CASRN 7440439</b>                       | Inorganic<br>Metals                                                   | 1.4               | 10                | 22                | 22                | 1999 |
| Chromium (total)<br><br><b>CASRN 7440-47-3</b>            | Inorganic<br>Metals                                                   | 64                | 64                | 87                | 87                | 1997 |
| Chromium, hexavalent (Cr(VI))<br><br><b>CASRN 7440473</b> | Inorganic<br>Metals                                                   | 0.4               | 0.4               | 1.4               | 1.4               | 1999 |
| Chrysene<br>PAHs                                          | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Cobalt                                                    | Inorganic<br>Metals                                                   | 40                | 50                | 300               | 300               | 1991 |
| Conductivity                                              | Physical                                                              | 2 dS/m            | 2 dS/m            | 4 dS/m            | 4 dS/m            | 1991 |
| Copper                                                    | Inorganic<br>Metals                                                   | 63                | 63                | 91                | 91                | 1999 |
| Cyanide                                                   | Inorganic                                                             | 0.9               | 0.9               | 8                 | 8                 | 1997 |
| Dibenz(a,h)anthracene<br>PAHs                             | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |

|                                                                                                            |                                                                       |                   |                   |                   |                   |      |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|------|
| Dichloro diphenyl<br>trichloroethane; 2,2-Bis(p-<br>chlorophenyl)-1,1,1-<br>trichloroethane<br>DDT (total) | Organic<br>Pesticides<br>Organochlorine compounds                     | 0.7               | 0.7               | 12                | 12                | 1999 |
| Dichloromethane<br>Methylene chloride<br><b>CASRN 75092</b>                                                | Organic<br>Halogenated aliphatic compounds<br>Halogenated methanes    | 0.1               | 5                 | 50                | 50                | 1991 |
| Dichlorophenols                                                                                            | Organic<br>Monocyclic aromatic compounds<br>Chlorinated phenols       | 0.05              | 0.5               | 5                 | 5                 | 1991 |
| Diisopropanolamine<br>DIPA<br><b>CASRN 110974</b>                                                          | Organic                                                               | 180               | 180               | 180               | 180               | 2006 |
| Ethylbenzene<br><br><b>CASRN 100414</b>                                                                    | Organic<br>Monocyclic aromatic compounds                              | Table             | Table             | Table             | Table             | 2004 |
| Ethylene glycol<br><br><b>CASRN 107211</b>                                                                 | Organic<br>Glycols                                                    | 960               | 960               | 960               | 960               | 1999 |
| Fluoranthene<br>PAHs                                                                                       | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Fluorene<br>PAHs                                                                                           | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Fluoride                                                                                                   | Inorganic                                                             | 200               | 400               | 2000              | 2000              | 1991 |
| Hexachlorobenzene                                                                                          | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes      | 0.05              | 2                 | 10                | 10                | 1991 |
| Hexachlorocyclohexane<br>Lindane                                                                           | Organic<br>Pesticides<br>Organochlorine compounds                     | 0.01              | <i>No data</i>    | <i>No data</i>    | <i>No data</i>    | 1991 |
| Indeno(1,2,3-c,d)pyrene<br>PAHs                                                                            | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Lead                                                                                                       | Inorganic<br>Metals                                                   | 70                | 140               | 260               | 600               | 1999 |

|                                                          |                                                                       |                   |                   |                   |                   |      |
|----------------------------------------------------------|-----------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|------|
| Mercury<br><b>CASRN 7439976</b>                          | Inorganic<br>Metals                                                   | 6.6               | 6.6               | 24                | 50                | 1999 |
| Methanol<br><b>CASRN 67-56-1</b>                         |                                                                       | Table             | Table             | Table             | Table             | 2017 |
| Molybdenum                                               | Inorganic<br>Metals                                                   | 5                 | 10                | 40                | 40                | 1991 |
| Monochlorobenzene<br><b>CASRN 108907</b>                 | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes      | 0.1               | 1                 | 10                | 10                | 1991 |
| Monochlorophenols                                        | Organic<br>Monocyclic aromatic compounds<br>Chlorinated phenols       | 0.05              | 0.5               | 5                 | 5                 | 1991 |
| Naphthalene<br>PAHs                                      | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Nickel                                                   | Inorganic<br>Metals                                                   | 45                | 45                | 89                | 89                | 2015 |
| Nonylphenol and its ethoxylates<br><b>CASRN 84852153</b> | Organic<br>Nonylphenol and its ethoxylates                            | 5.7               | 5.7               | 14                | 14                | 2002 |
| n-hexane<br><b>CASRN 110-54-3</b>                        | Aliphatic hydrocarbon                                                 | Table             | Table             | Table             | Table             | 2011 |
| Pentachlorobenzene<br><b>CASRN 608935</b>                | Organic<br>Monocyclic aromatic compounds<br>Chlorinated benzenes      | 0.05              | 2                 | 10                | 10                | 1991 |
| Pentachlorophenol<br>PCP                                 | Organic<br>Monocyclic aromatic compounds<br>Chlorinated phenols       | 7.6               | 7.6               | 7.6               | 7.6               | 1997 |
| Phenanthrene<br>PAHs                                     | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons | Consult Factsheet | Consult Factsheet | Consult Factsheet | Consult Factsheet | 2008 |
| Phenolic compounds,<br>nonchlorinated                    | Organic<br>Non-halogenated aromatic hydroxy compounds                 | 0.1               | 1                 | 10                | 10                | 1991 |

|                                                                      |                                                                         |                                             |                                             |                                             |                                             |             |
|----------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|-------------|
| Phenols (mono- & dihydric)<br><b>CASRN 108952</b>                    | Organic<br>Aromatic hydroxy compounds                                   | 3.8                                         | 3.8                                         | 3.8                                         | 3.8                                         | 1997        |
| Phthalic acid esters (each)                                          | Organic<br>Phthalate esters                                             | 30                                          | <i>No data</i>                              | <i>No data</i>                              | <i>No data</i>                              | 1991        |
| Polychlorinated biphenyls<br>PCBs                                    | Organic<br>Polyaromatic compounds<br>Polychlorinated biphenyls          | 0.5                                         | 1.3                                         | 33                                          | 33                                          | 1999        |
| Polychlorinated dibenzo-p-<br>dioxins/dibenzo furans<br>PCDDs, PCDFs | Organic<br>Polyaromatic compounds<br>Polychlorinated dioxins and furans | 4 ng TEQ.kg-1                               | 4 ng TEQ.kg-1                               | 4 ng TEQ.kg-1                               | 4 ng TEQ.kg-1                               | 2002        |
| Propylene glycol<br><b>CASRN 57556</b>                               | Organic<br>Glycols                                                      | insufficient information                    | insufficient information                    | insufficient information                    | insufficient information                    | 2006        |
| Pyrene<br>PAHs                                                       | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons   | Consult Factsheet                           | Consult Factsheet                           | Consult Factsheet                           | Consult Factsheet                           | 2008        |
| pH                                                                   | Inorganic<br>Acidity, alkalinity and pH                                 | 6 to 8                                      | 6 to 8                                      | 6 to 8                                      | 6 to 8                                      | 1991        |
| Quinoline<br>PAHs                                                    | Organic<br>Polyaromatic compounds<br>Polycyclic aromatic hydrocarbons   | 0.1                                         | <i>No data</i>                              | <i>No data</i>                              | <i>No data</i>                              | 1991        |
| Selenium                                                             | Inorganic<br>Metals                                                     | 1                                           | 1                                           | 2.9                                         | 2.9                                         | 2009        |
| Silver                                                               | Inorganic<br>Metals                                                     | 20                                          | 20                                          | 40                                          | 40                                          | 1991        |
| Sodium adsorption ratio<br>SAR                                       |                                                                         | 5                                           | 5                                           | 12                                          | 12                                          | 1991        |
|                                                                      |                                                                         | <b>Concentration<br/>(mg/kg dry weight)</b> | <b>Concentration<br/>(mg/kg dry weight)</b> | <b>Concentration<br/>(mg/kg dry weight)</b> | <b>Concentration<br/>(mg/kg dry weight)</b> | <b>Date</b> |
| <b>Chemical name</b>                                                 | <b>Chemical groups</b>                                                  | <b>Agricultural</b>                         | <b>Residential/ parkland</b>                | <b>Commercial</b>                           | <b>Industrial</b>                           |             |
| Styrene<br><b>CASRN 100425</b>                                       | Organic<br>Monocyclic aromatic compounds                                | 0.1                                         | 5                                           | 50                                          | 50                                          | 1991        |

|                                                                  |                                                                    |       |                |                |                |      |
|------------------------------------------------------------------|--------------------------------------------------------------------|-------|----------------|----------------|----------------|------|
| Sulfolane<br>Bondelane<br><b>CASRN 126330</b>                    | Organic<br>Organic sulphur compound                                | 0.8   | 0.8            | 0.8            | 0.8            | 2006 |
| Sulphur (elemental)                                              | Inorganic<br>Inorganic sulphur compounds                           | 500   | <i>No data</i> | <i>No data</i> | <i>No data</i> | 1991 |
| Tetrachloroethene                                                | Organic<br>Halogenated aliphatic compounds<br>Halogenated methanes | 0.1   | 5              | 50             | 50             | 1991 |
| Tetrachloromethane<br>Carbon tetrachloride<br><b>CASRN 56235</b> | Organic<br>Halogenated aliphatic compounds<br>Halogenated methanes | 0.1   | 5              | 50             | 50             | 1991 |
| Tetrachlorophenols                                               | Organic<br>Monocyclic aromatic compounds<br>Chlorinated phenols    | 0.05  | 0.5            | 5              | 5              | 1991 |
| Thallium                                                         | Inorganic<br>Metals                                                | 1     | 1              | 1              | 1              | 1999 |
| Thiophene                                                        | Miscellaneous organic compound                                     | 0.1   | <i>No data</i> | <i>No data</i> | <i>No data</i> | 1991 |
| Tin                                                              | Inorganic<br>Metals                                                | 5     | 50             | 300            | 300            | 1991 |
| Toluene<br><b>CASRN 108883</b>                                   | Organic<br>Monocyclic aromatic compounds                           | Table | Table          | Table          | Table          | 2004 |
| Trichloromethane<br>Chloroform<br><b>CASRN 67663</b>             | Organic<br>Halogenated aliphatic compounds<br>Halogenated methanes | 0.1   | 5              | 50             | 50             | 1991 |
| Trichlorophenols                                                 | Organic<br>Monocyclic aromatic compounds<br>Chlorinated phenols    | 0.05  | 0.5            | 5              | 5              | 1991 |
| Uranium<br><b>CASRN 7440-61-1</b>                                | Inorganic<br>Metals                                                | 23    | 23             | 33             | 300            | 2007 |
| Vanadium                                                         | Inorganic<br>Metals                                                | 130   | 130            | 130            | 130            | 1997 |
| Xylene                                                           | Organic<br>Monocyclic aromatic compounds                           | Table | Table          | Table          | Table          | 2004 |
| Zinc                                                             | Inorganic<br>Metals                                                | 250   | 250            | 410            | 410            | 2018 |

| Chemical name                  | Chemical groups |
|--------------------------------|-----------------|
| Sodium adsorption ratio<br>SAR |                 |