

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.

Polychlorinated dibenzo-p-dioxins/dibenzo furans

Synonyms and/or acronyms: PCDDs, PCDFs

Parameter 1: ORGANIC

Parameter 2: Polyaromatic compounds

Parameter 3: Polychlorinated dioxins and furans

Water Quality for the Protection of Aquatic Life

Freshwater

Concentration (µg/L) *No data*

Date *No data*

Marine

Concentration (µg/L) *No data*

Date *No data*

Water Quality for the Protection of Agriculture

Irrigation

Concentration (µg/L) *No data*

Date *No data*

Livestock

Concentration (µg/L) *No data*

Date *No data*

Sediment Quality for the Protection of Aquatic Life

Further documentation on these guidelines can be found in the Canadian Environment Quality Guidelines.

[Download Factsheet](#)

Freshwater

Concentration (µg/kg dry weight) - ISQG

0.85 ng TEQ/kg dry
weight

Guideline	ISQG	ISQG < PEL	ISQG % > PEL
Polychlorinated dibenzo-p-dioxins and polychlorinated	0	24	46

dibenzofurans

Note:

ISQG and PEL are expressed as toxic equivalency (TEQ) units, based on WHO 1998 TEF values for fish. A safety factor of 10 was applied. See factsheet for details.

Note that the incidence of adverse biological effects below the TEL, between the TEL and PEL, and above the PEL were 22%, 24% and 65%, respectively, prior to the application of a safety factor.

Concentration ($\mu\text{g}/\text{kg}$ dry weight) - PEL

21.5 ng TEQ/kg dry weight

Guideline	% of ISQG	ISQG < % < PEL	ISQG % of PEL
Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans	0	24	46

Note:
ISQG and PEL are expressed as toxic equivalency (TEQ) units, based on WHO 1998 TEF values for fish. A safety factor of 10 was applied. See factsheet for details.
Note that the incidence of adverse biological effects below the TEL, between the TEL and PEL, and above the PEL were 22%, 24% and 65%, respectively, prior to the application of a safety factor.

Date 2001

Marine

Concentration ($\mu\text{g}/\text{kg}$ dry weight) - ISQG

0.85 ng TEQ/kg dry weight

Values are expressed as toxic equivalency (TEQ) units, based on WHO 1998 TEF values for fish. A safety factor of 10 was applied. See factsheet for details.
Provisional; adoption of freshwater ISQG

Concentration ($\mu\text{g}/\text{kg}$ dry weight) - PEL

21.5 ng TEQ/kg dry weight

Values are expressed as toxic equivalency (TEQ) units, based on WHO 1998 TEF values for fish. A safety factor of 10 was applied. See factsheet for details.
Provisional; adoption of freshwater PEL

Date

2001

Soil Quality for the Protection of Environmental and Human Health

Further documentation on these guidelines can be found in the Canadian Environment Quality Guidelines.

[Download Factsheet](#)

Concentration (mg/kg dry weight) - Agricultural

4 ng TEQ.kg-1

Data are sufficient and adequate to calculate only a provisional Soil Quality Guideline for Human Health (SQG_{HH}), which is less than the existing interim soil quality criterion CCME, 1991). Thus the provisional SQG_{HH} becomes the soil quality guideline, which supersedes the interim soil quality criterion for this land use.

For guidelines derived prior to 2004, differentiation between soil texture (coarse/fine) is not

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Concentration (mg/kg dry weight) - Residential / parkland

4 ng TEQ.kg-1

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For guidelines derived prior to 2004, differentiation between soil texture (coarse/fine) is not applicable.

Concentration (mg/kg dry weight) - Commercial

4 ng TEQ.kg-1

Data are sufficient and adequate to calculate only a provisional Soil Quality Guideline for Human Health (SQG_{HH}). An interim soil quality criterion (CCME, 1991) was not established for this land use, therefore the provisional SQG_{HH} becomes the soil quality guideline.

For guidelines derived prior to 2004, differentiation between soil texture (coarse/fine) is not applicable.

Concentration (mg/kg dry weight) - Industrial

4 ng TEQ.kg-1

Data are sufficient and adequate to calculate only a Soil Quality Guideline for Human Health (SQG_{HH}). An interim soil quality criterion (CCME, 1991) was not established for this land use, therefore the SQG_{HH} becomes the soil quality guideline.

For guidelines derived prior to 2004, differentiation between soil texture (coarse/fine) is not applicable.

Date

2002

Tissue Residue Quality for the Protection of Wildlife Consumer of Aquatic Biota

Further documentation on these guidelines can be found in the Canadian Environment Quality Guidelines.

[Download Factsheet](#)

Concentration (µg/kg diet wet weight)

Variable

Mammalian: 0.71 ng TEQ/kg diet wet weight

Note: TEQ refers to dioxin toxic equivalents using toxic equivalency factors (TEFs) for PCBs for mammals developed by the World Health Organization in 1998. See fact sheet for supporting document for more details.

Avian: 4.75 ng TEQ/kg diet wet weight

Note: TEQ refers to dioxin toxic equivalents using toxic equivalency factors (TEFs) for PCBs for

Note. TEQ refers to dioxin toxic equivalents using toxic equivalency factors (TEFs) for PCBs for birds developed by the World Health Organization in 1998. See fact sheet for supporting document for more details.

Interim guideline: see factsheet for details.

Date

2001