

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.

Zinc

Parameter 1: INORGANIC

Parameter 3: Metals

Water Quality for the Protection of Aquatic Life

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

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Factsheet](#)

Freshwater

Short Term Concentration ($\mu\text{g/L}$)

37

The short-term benchmark is for dissolved zinc and is calculated using the following equation: $\text{Benchmark} = \exp(0.833[\ln(\text{hardness } \text{mg}\cdot\text{L}^{-1})] + 0.240[\ln(\text{DOC } \text{mg}\cdot\text{L}^{-1})] + 0.526)$. The value in the table is for surface water of $50 \text{ mg CaCO}_3\cdot\text{L}^{-1}$ hardness and $0.5 \text{ mg}\cdot\text{L}^{-1}$ dissolved organic carbon (DOC). The benchmark equation is valid between hardness 13.8 and $250.5 \text{ mg CaCO}_3\cdot\text{L}^{-1}$ and DOC 0.3 and $17.3 \text{ mg}\cdot\text{L}^{-1}$.

Long Term Concentration ($\mu\text{g/L}$)

7.0

The long-term CWQG is for dissolved zinc and is calculated using the following equation: $\text{CWQG} = \exp(0.947[\ln(\text{hardness } \text{mg}\cdot\text{L}^{-1})] - 0.815[\text{pH}] + 0.398[\ln(\text{DOC } \text{mg}\cdot\text{L}^{-1})] + 4.625)$. The value in the table is for surface water of $50 \text{ mg CaCO}_3\cdot\text{L}^{-1}$ hardness, pH of 7.5 and $0.5 \text{ mg}\cdot\text{L}^{-1}$ DOC. The CWQG equation is valid between hardness 23.4 and $399 \text{ mg CaCO}_3\cdot\text{L}^{-1}$, pH 6.5 and 8.13 and DOC 0.3 to $22.9 \text{ mg}\cdot\text{L}^{-1}$.

Date

2018

Marine

Short Term Concentration ($\mu\text{g/L}$)

Not assessed

Long Term Concentration ($\mu\text{g/L}$)

Not assessed

Date

2018

Water Quality for the Protection of Agriculture

Irrigation

Concentration ($\mu\text{g/L}$)

Equation

= 1000 µg/L when soil pH < 6.5
 = 5000 µg/L when soil pH > 6.5
 No fact sheet created. For more information on this guideline, please refer to Canadian Water Quality Guidelines (CCREM 1987).

Date 1987

Livestock

Concentration (µg/L) 50 000

No fact sheet created. For more information on this guideline, please refer to Canadian Water Quality Guidelines (CCREM 1987).

Date 1987

Sediment Quality for the Protection of Aquatic Life

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

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Freshwater

Concentration (µg/kg dry weight) - ISQG 123 000

Guideline	% ≤ ISQG	ISQG < % < PEL	ISQG % ≥ PEL
Zinc	5	32	36

Concentration (µg/kg dry weight) - PEL 315 000

Guideline	% ≤ ISQG	ISQG < % < PEL	ISQG % ≥ PEL
Zinc	5	32	36

Date 1998

Marine

Concentration (µg/kg dry weight) - ISQG 124 000

Guideline	% ≤ ISQG	ISQG < % < PEL	ISQG % ≥ PEL
Zinc	4	27	65

Concentration (µg/kg dry weight) - PEL 271 000

Guideline	% ≤ ISQG	ISQG < % < PEL	ISQG < % = PEL
Zinc	4	27	65

Date 1998

Soil Quality for the Protection of Environmental and Human Health

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

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Concentration (mg/kg dry weight) - Agricultural 250

Data are sufficient and adequate to calculate guidelines for human health and environmental health. Therefore, the soil quality guideline is the lower of the two and supersedes the 1999 soil quality guideline and the 1991 interim remediation criteria for soil.

Concentration (mg/kg dry weight) - Residential / parkland 250

Data are sufficient and adequate to calculate guidelines for human health and environmental health. Therefore, the soil quality guideline is the lower of the two and supersedes the 1999 soil quality guideline and the 1991 interim remediation criteria for soil.

Concentration (mg/kg dry weight) - Commercial	410
Data are sufficient and adequate to calculate guidelines for human health and environmental health. Therefore, the soil quality guideline is the lower of the two and supersedes the 1999 soil quality guideline and the 1991 interim remediation criteria for soil.	
Concentration (mg/kg dry weight) - Industrial	410
Data are sufficient and adequate to calculate guidelines for human health and environmental health. Therefore, the soil quality guideline is the lower of the two and supersedes the 1999 soil quality guideline and the 1991 interim remediation criteria for soil.	
Date	2018
Tissue Residue Quality for the Protection of Wildlife Consumer of Aquatic Biota	
Concentration (µg/kg diet wet weight)	<i>No data</i>
Date	<i>No data</i>