

CRITERIA SUMMARY

Lake Erie Basin			
Tier I HNC (µg/l)		Tier I HCC (µg/l)	
Drinking	Nondrinking	Drinking	Nondrinking
ID	ID	ID	ID

EXPOSURE AND TOXICITY DATA

Human health trophic level 3 bioaccumulation factor (BAFHHTL3) = ___ l/kg (Vanderploeg *et al.* 1975)^a

Human health trophic level 4 bioaccumulation factor (BAFHHTL4) = ___ l/kg (Vanderploeg *et al.* 1975)^a

Acceptable daily exposure (ADE) = Not available (IRIS)

Carcinogen assessment: Not available (IRIS)

Cancer slope factor (q1*) = Not available (IRIS)

Body weight of average human (BW) = 70 kg (OAC 3745-1-38)

Relative source contribution factor (RSC) = 0.8 (OAC 3745-1-38)

Per capita water consumption (WC) = 2.0 l/day for drinking water criteria (OAC 3745-1-38)
 = 0.01 l/day for nondrinking water criteria (OAC 3745-1-38)

Mean consumption of trophic level three fish (FCTL3) = 0.0036 kg/day (OAC 3745-1-38)

Mean consumption of trophic level four fish (FCTL4) = 0.0114 kg/day (OAC 3745-1-38)

REFERENCES

Integrated Risk Information System. USEPA Office of Research and Development, National Center for Environmental Assessment.

Ohio Administrative Code rule 3745-1-38: Methodologies for Development of Human Health Criteria and Values for the Lake Erie Drainage Basin. Effective 10/31/97.

Vanderploeg, H.A., D.C. Parzyck, W.H. Wilcox, J.R. Kercher and S.V. Kaye. 1975. Bioaccumulation Factors for Radionuclides in Freshwater Biota. Oak Ridge National Laboratory. ORNL-5002. Environmental Sciences Division Publication No. 783.

^aThis reference should be considered when an ADE or q1* for cobalt becomes available.

CALCULATION OF
HUMAN NONCARCINOGENIC CRITERION (HNC) ^a

$$\text{HNC} = \frac{\text{ADE} \times \text{BW} \times \text{RSC}}{\text{WC} + [(\text{FC}_{\text{TL3}} \times \text{BAFH}_{\text{TL3}}) + (\text{FC}_{\text{TL4}} \times \text{BAFH}_{\text{TL4}})]}$$

Insufficient data (no ADE).

CALCULATION OF
HUMAN CARCINOGENIC CRITERION (HCC) ^a

$$\text{HCC} = \frac{\text{RAD} \times \text{BW}}{\text{WC} + [(\text{FC}_{\text{TL3}} \times \text{BAFH}_{\text{TL3}}) + (\text{FC}_{\text{TL4}} \times \text{BAFH}_{\text{TL4}})]}$$

Insufficient data (no q_1^*).

^aSee Ohio Administrative Code 3745-1-38 effective October 31, 1997.