OHIO EPA SURFACE WATER QUALITY CRITERION FACT SHEET

Chemical Name: 2-Chlorophenol Developed by: Chris Skalski
CAS # 95-57-8 Fact Sheet Preparation Date: 9-05-97
Internal Code # 39 Data Retrieval Date: 3-01-06

ACUTE DATA

SPECIES	EC_{50}/LC_{50} (µg/l)	TEST TYPE[a]	DURATION (HOURS)	SMAV[b] (µg/l)	GMAV[b] (µg/l)	REFERENCE NUMBER
Cladoceran	6,200	S,U	48	4,652	4,652	1
Daphnia magna	3,910	S,M	48			2
	2,600	S,U	48			3
	7,430	S,U	48			4
	7,430[c]	S,U	48			5
	7,430[c]	S,U	48			6
Goldfish	12,370	S,U	96	12,370	12,370	7
Carassius auratus						
Bluegill	10,000	S,U	96	8,124	8,124	7
Lepomis macrochirus	6,600	S,U	96			8
Fathead Minnow	11,630	S,U	96	11,674	11,674	7
Pimephales promelas	14,480	S,U	96			7
	11,000	F,M	96			9
	13,000	F,M	96			9
	13,800	F,M	96			10
	9,410	F,M	96			11
Guppy	20,170	S,U	96	20,170	20,170	7
Poecilia reticulata						

[a] S = static; R = renewal; F = flow through; M = measured; U = unmeasured.
[b] SMAV = Species Mean Acute Value; GMAV = Genus Mean Acute Value.
[c] Duplicate data not used to calculate the SMAV.

CHRONIC DATA

SPECIES	CHRONIC VALUE (µg/l)	METHOD	SMCV[a] (µg/l)	GMCV[a] (µg/l)	REFERENCE NUMBER

No Chronic Data

[a] SMCV = Species Mean Chronic Value; GMCV = Genus Mean Chronic Value.

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11. Geiger, D.L., D.J. Call and L.T. Brooke. 1988. Acute Toxicities of Organic Chemicals to Fathead Minnows (*Pimephales promelas*), Vol. 2. Center for Lake Superior Environmental Studies, Univ. of Wisconsin, Superior, WI:355 p.

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CALCULATION OF ACUTE AQUATIC VALUE (AAV)[a]

Data Requirement OAC 3745-1-36(A)(1)	SPECIES	GMAV (µg/l)
(b)	Bluegill	8,124
(c)	Fathead Minnow	11,674
(d)	*Daphnia magna*	4,652

Secondary Acute Factor (SAF) = 8.0

Secondary Acute Value (SAV) = Lowest GMAV ÷ SAF
= 4,652 ÷ 8.0
= 581 = 580 µg/l

Tier II Acute Aquatic Value (AAV) = SAV ÷ 2
= 581 ÷ 2
= 290 µg/l

CALCULATION OF CHRONIC AQUATIC VALUE (CAV)[a]

Experimentally determined Acute-Chronic Ratios (ACRs):

SPECIES	ACUTE VALUE ACUTE-CHRONIC (µg/l)	(µg/l)	CHRONIC VALUE SPECIES MEAN RATIO	ACR

None Available

Secondary Acute-Chronic Ratio (SACR) $= \sqrt[3]{(18)(18)(18)} = 18$

Chronic Aquatic Value (CAV) = FAV ÷ SACR
= 581 ÷ 18
= 32 μg/l

[a]See Ohio Administrative Code 3745-1-36 effective February 22, 2002.