OHIO EPA SURFACE WATER QUALITY CRITERION FACT SHEET

Chemical Name: Chloroform (Trichloromethane) Developed by: Chris J. Skalski
CAS # 67-66-3 Data Retrieval Date: 9-05-97
Internal Code # 36 Fact Sheet Preparation 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	29,000	S,U	48	53,562	53,562	1
Daphnia magna	353,000[d]	S,U	48			2
	758,000[c]	S,U	48			3
	98,926	S,U	48			8
Cladoceran	290,000[c]	S,U	48			2
Ceriodaphnia dubia						
Channel Catfish	75,000	F,M	96	75,000	75,000	4
Ictalurus punctatus						
Rainbow Trout	18,200	F,M	96	18,041	18,041	4
Oncorhynchus mykiss	18,400	F,M	96			4
	22,100	F,M	96			4
	15,100	F,M	96			4
	17,100	F,M	96			4
	43,800	S,U	96			5
	66,800	S,U	96			5
Largemouth Bass	55,800	F,M	96	51,045	51,045	4
Micropterusa salmoides	52,500	F,M	96			4
	45,400	F,M	96			4
Bluegill	16,200	F,M	96	17,883	17,883	4
Lepomis macrochirus	22,300	F,M	96			4
	13,300	F,M	96			4
	18,300	F,M	96			4
	20,800	F,M	96			4
	100,000	S,U	96			5
	115,000	S,U	96			5
Fathead Minnow	70,700	F,M	96	70,700	70,700	6
Pimephales promelas	129,000	S,U	96			7
	171,000	S,U	96			7
	103,000	S,U	96			7

[a] S = static; F= flow through; U = unmeasured; M = measured.
[b] SMAV = Species Mean Acute Value; GMAV = Genus Mean Acute Value.
[c] Data not used because the test organisms were fed during the test.
[d] Data not used because it varies by over a factor of 10 from the other data for this species.

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CHRONIC DATA

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

No Chronic Data Available

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

REFERENCES

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CALCULATION OF ACUTE AQUATIC VALUE (AAV)[a]

Data Requirement OAC 3745-1-36(A)(1)	SPECIES	GMAV (μg/l)
(a)	Rainbow Trout	18,041
(b)	Bluegill	17,883
(c)	Largemouth Bass	51,045
(d)	*Daphnia magna*	53,562

Secondary Acute Factor (SAF) = 7.0

Secondary Acute Value (SAV) = Lowest GMAV ÷ SAF
= 17,883 ÷ 7.0
= 2,555 = 2,600 μg/l

Tier II Acute Aquatic Value (AAV) = SAV ÷ 2
= 2,555 ÷ 2
= 1,300 μg/l

CALCULATION OF CHRONIC AQUATIC VALUE (CAV)[a]

Experimentally determined Acute-Chronic Ratios (ACRs):

SPECIES	ACUTE VALUE (μg/l)	CHRONIC VALUE (μg/l)	ACUTE-CHRONIC RATIO	SPECIES MEAN ACR
None Available				

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

Chronic Aquatic Value (CAV) = SAV ÷ SACR
= 2,555 ÷ 18
= 142 = 140 μg/l

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

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