

OHIO EPA AQUATIC LIFE WATER QUALITY SCREENING VALUE FACT SHEET

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Chemical Name: Bromodichloromethane Developed by: Chris J. SkalskiCAS # 75-27-4 Data Retrieval Date: 7-09-98Internal Code # 53 Fact Sheet Preparation Date: 3-01-06ACUTE DATA

<u>SPECIES</u>	<u>EC₅₀/LC₅₀</u> <u>(µg/l)</u>	<u>TEST TYPE^a</u>	<u>DURATION</u> <u>(HOURS)</u>	<u>SMAV^b</u> <u>(µg/l)</u>	<u>GMAV^b</u> <u>(µg/l)</u>	<u>REFERENCE</u> <u>NUMBER</u>
Cladoceran <i>Daphnia magna</i>	51,073	QSAR	48			1
Bluegill <i>Lepomis macrochirus</i>	76,840	QSAR	96			1
Fathead Minnow <i>Pimephales promelas</i>	100,306	QSAR	96			1
Channel Catfish <i>Ictalurus punctatus</i>	43,206	QSAR	96			1
Rainbow Trout <i>Oncorhynchus</i>	44,443	QSAR	96			1

^a QSAR = Quantitative Structure Activity Relationship.^b SMAV = Species Mean Acute Value; GMAV = Genus Mean Acute Value.CHRONIC DATA

<u>SPECIES</u>	<u>CHRONIC VALUE</u> <u>(µg/l)</u>	<u>METHOD^a</u>	<u>SMCV^a</u> <u>(µg/l)</u>	<u>GMCV^a</u> <u>(µg/l)</u>	<u>REFERENCE</u> <u>NUMBER</u>
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No Chronic Data Available

^a SMCV = Species Mean Chronic Value; GMCV = Genus Mean Chronic Value.REFERENCES

- USEPA ASTER database, July 9, 1998.

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CALCULATION OF SCREENING ACUTE AQUATIC VALUE (AAV)^a

<u>Data Requirement</u> <u>OAC 3745-1-36(A)(1)</u>	<u>SPECIES</u>	<u>GMAV</u> <u>(µg/l)</u>
(a)	Rainbow Trout	44,443
(b)	Channel Catfish	43,206
(c)	Bluegill	76,840
(d)	<i>Daphnia magna</i>	51,073

Secondary Acute Factor (SAF) = 7.0

Secondary Acute Value (SAV) = Lowest GMAV ÷ SAF
 = 43,206 ÷ 7.0
 = 6,172 = 6,200 µg/l

Tier II Acute Aquatic Value (AAV) = SAV ÷ 2
 = 6,172 ÷ 2
 = 3,086 = 3,100 µg/l

CALCULATION OF SCREENING CHRONIC AQUATIC VALUE (CAV)^a

Experimentally determined Acute-Chronic Ratios (ACRs):

<u>SPECIES</u>	<u>ACUTE VALUE</u> <u>(µg/l)</u>	<u>CHRONIC VALUE</u> <u>(µg/l)</u>	<u>ACUTE-CHRONIC</u> <u>RATIO</u>	<u>SPECIES MEAN</u> <u>ACR</u>
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No Chronic Data Available

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

Chronic Aquatic Value (CAV) = SAV ÷ SACR
 = 6,172 ÷ 18
 = 343 = 340 µg/l

^aSee Ohio Administrative Code 3745-1-36 effective October 31, 1997.