

OHIO EPA SURFACE WATER QUALITY CRITERION FACT SHEET

Page 1 of 2

Chemical Name: Benzo(b)fluoranthene Developed by: Chris Skalski

CAS # 205-99-2 Data Retrieval Date: 3-19-03

Internal Code # 14 Fact Sheet Preparation Date: 3-01-06

Reviewed by: Bob Heitzman

ACUTE DATA

<u>SPECIES</u>	<u>EC₅₀/LC₅₀</u> <u>(µg/l)</u>	<u>TEST TYPE^b</u>	<u>DURATION</u> <u>(HOURS)</u>	<u>SMAV^a</u> <u>(µg/l)</u>	<u>GMAV^a</u> <u>(µg/l)</u>	<u>REFERENCE</u> <u>NUMBER</u>
Cladoceran Daphnia magna	>1,024	S,U	24	>1,024	>1,024	1

^a SMAV = Species Mean Acute Value; GMAV = Genus Mean Acute Value.

^b S = static; U = unmeasured

CHRONIC DATA

<u>SPECIES</u>	<u>CHRONIC VALUE</u> <u>(µg/l)</u>	<u>METHOD</u>	<u>SMCV^a</u> <u>(µg/l)</u>	<u>GMCV^a</u> <u>(µg/l)</u>	<u>REFERENCE</u> <u>NUMBER</u>
----------------	---------------------------------------	---------------	--	--	-----------------------------------

No Chronic Data

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

REFERENCES

1. Wernersson, A.S. and G. Dave. 1997. Phototoxicity Identification by Solid Phase Extraction and Photoinduced Toxicity to *Daphnia magna*. Arch. Environ. Contam. Toxicol. 32(3):268-273.

OHIO EPA SURFACE WATER QUALITY CRITERION FACT SHEET

Page 2 of 2

Chemical Name: Benzo(b)fluoranthene Developed by: Chris Skalski

CAS # 205-99-2 Data Retrieval Date: 3-19-03

Internal Code # 14 Fact Sheet Preparation Date: 3-01-06

Reviewed by: Bob Heitzman

CALCULATION OF ACUTE SCREENING AQUATIC VALUE (AAV)^a

<u>Data Requirement</u> OAC 3745-1-36(A)(1)	<u>SPECIES</u>	<u>GMAV</u> ($\mu\text{g/l}$)
(d)	<i>Daphnia magna</i>	1,024

Secondary Acute Factor (SAF) = 21.9

Secondary Acute Value (SAV) = Lowest GMAV \div SAF
 = 1,024 \div 21.9
 = 46.76 = 47 $\mu\text{g/l}$

Tier II Acute Aquatic Value (AAV) = SAV \div 2
 = 46.76 \div 2 = 23 $\mu\text{g/l}$

CALCULATION OF CHRONIC SCREENING AQUATIC VALUE (CAV)^a

Experimentally determined Acute-Chronic Ratios (ACRs):

<u>SPECIES</u>	<u>ACUTE VALUE</u> ($\mu\text{g/l}$)	<u>CHRONIC VALUE</u> ($\mu\text{g/l}$)	<u>ACUTE-CHRONIC</u> <u>RATIO</u>	<u>SPECIES MEAN</u> <u>ACR</u>
None Available				

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

Chronic Aquatic Value (CAV) = SAV \div SACR
 = 46.76 \div 18
 = 2.6 $\mu\text{g/l}$

OHIO EPA SURFACE WATER QUALITY CRITERION FACT SHEET

Page 3 of 2

Chemical Name: Benzo(b)fluoranthene Developed by: Chris Skalski

CAS # 205-99-2 Data Retrieval Date: 3-19-03

Internal Code # 14 Fact Sheet Preparation Date: 3-01-06

Reviewed by: Bob Heitzman

^aSee Ohio Administrative Code 3745-1-36 effective February 22, 2002.

Screening SAV	47 µg/l
Screening AAV	23 µg/l
Screening CAV	2.6 µg/l