

OHIO EPA SURFACE WATER QUALITY CRITERION FACT SHEET

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Chemical Name: Acetophenone Developed by: Chris J. SkalskiCAS # 98-86-2 Data Retrieval Date: 3-10-03Internal Code # --- Fact Sheet Preparation Date: 3-11-03Reviewed by: Bob HeitzmanACUTE 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>
Fathead Minnow	155,000	S,U	96	195,572	195,572	1
<i>Pimephales promelas</i>	162,000	F,M	96			2
	236,102	F,M	96			3

^a S = static; F = flow through; M = measured; U = unmeasured.^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</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

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

1. Mattson, V.R., J.W. Arthur and C.T. Walbridge. 1976. Acute Toxicity of Selected Organic Compounds to Fathead Minnows. EPA-600/3-76-097, U.S. EPA, Duluth, MN: 12 p.
2. Brooke, L.T., D.J. Call, D.L. Geiger and C.E. Northcott. 1984. Acute Toxicities of Organic Chemicals to Fathead Minnows (*Pimephales promelas*), Volume 1. Center for Lake Superior Environmental Studies, Univ. of Wisconsin, Superior, WI: 414 p.
3. Broderius, S. and M. Kahl. 1985. Acute Toxicity of Organic Chemical Mixtures to the Fathead Minnow. Aquat. Toxicol. 6:302-322.

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CALCULATION OF 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>
(b)		
(c)	Fathead Minnow	195,572

Secondary Acute Factor (SAF) =

Secondary Acute Value (SAV) = Lowest GMAV ÷ SAF

$$= \div$$

$$= \mu\text{g/l}$$

Tier II Acute Aquatic Value (AAV) = SAV ÷ 2

$$= \div 2$$

$$= \mu\text{g/l}$$

CALCULATION OF 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 Acute - to - Chronic Ratios Available

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

Chronic Aquatic Value (CAV) = SAV ÷ SACR

$$= \div 18$$

$$= \mu\text{g/l}$$

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

SAV	µg/l
AAV	µg/l
CAV	µg/l