

Chemical Name: 1,3,5-TrimethylbenzeneDeveloped by: Chris J. SkalskiCAS # 108-67-8Data Retrieval Date: 4-24-98Internal Code # ---Fact Sheet Preparation Date: 3-01-06

ACUTE 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>	6,010	S,U	48	6,010	6,010	1
Goldfish <i>Carassius auratus</i>	12,520	F,M	96	12,520	12,520	2

^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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None Available

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

REFERENCES

1. Bobra, A.M., W.Y. Shiu and D. MacKay. 1983. A Predictive Correlation for *the Acute Toxicity of Hydrocarbons and Chlorinated Hydrocarbons to the Water Flea (Daphnia magna)*. Chemosphere 12(9-10):1121-1129.
2. Brenniman, G., R. Hartung and W.J. Weber, Jr. 1976. A Continuous Flow Bioassay Method to Evaluate the Effect of Outboard Motor Exhausts and Selected Aromatic Toxicants on Fish. Water Res. 10(2):165-169.

Chemical Name: 1,3,5-TrimethylbenzeneDeveloped by: Chris J. SkalskiCAS # 108-67-8Data Retrieval Date: 4-24-98Internal Code # ---Fact Sheet Preparation Date: 3-01-06CALCULATION 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)	Goldfish	12,520
(d)	<i>Daphnia magna</i>	6,010

Secondary Acute Factor (SAF) = 13.0

Secondary Acute Value (SAV) = Lowest GMAV ÷ SAF
= 6,010 ÷ 13.0
= 462 = 460 µg/l

Tier II Acute Aquatic Value (AAV) = SAV ÷ 2
= 462 ÷ 2
= 231 = 230 µg/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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None Available

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

Chronic Aquatic Value (CAV) = SAV ÷ SACR
= 462 ÷ 18
= 26 µg/l

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