Rule 57 Aquatic Values Data Sheet

1/14/2010

Chemical or product name: 2-Nitrophenol
Manufacturer (WTAs): -----
C.A.S #: 88-75-5

Developed by: Christopher Hull *FAV*: 1,000 ug/l* *(Tier: II)*
Approved by: D. Bush *AMV*: 510 ug/l* *(Tier: II)*
Approval date: 1/28/2010 *FCV*: 56 ug/l* *(Tier: II)*
CAS: 11/19/09; AQUIRE: 11/17/09; QSAR: 12/09/ *Acute CF: ----* *Chronic CF: ----*
Clearinghouse search date: 12/05/95

ACUTE DATA

Species	Endpoint (EC or LC50)	Duration (hours)	Test Type (FT,M, etc.)	Hardness mg/L	Test Chemical	LC50/EC50 ug/L	SMAV ug/L	GMAV ug/L	Rank	Reference
Water Flea *(Daphnia magna)*	LC50	48	S,U	150	-----	13,170	13,170	13,170	1	1
Fathead Minnow	EC50	96	FT,M	44	-----	138,000	138,000	138,000	2	2
(Pimephales promelas)	LC50	96	FT,M	44	-----	160,000 [1]				2

*Value rounded to 2 significant figures.

[1] Value not used to calculate SMAV, because EC50 preferred over LC50 from the same test.

CHRONIC DATA

Species	Test type (ELS, etc.)	Duration (days)	Study Conditions (FT,M etc.)	Hardness mg/L	Test Chemical	MATC ug/L	SMCV ug/L	GMCV ug/L	Rank	Reference

NO SUITABLE DATA WERE FOUND.

Min. Data Req. met	Acute Factor
2	13
3	8
4	7
5	6.1
6	5.2
7	4.3

RULE 57 AQUATIC VALUES WORK SHEET-ACUTE

Chemical Name: **2-Nitrophenol**
CAS #: **88-75-5**
Developed by: **Christopher Hull**
Date: **1/14/10**

AQUATIC MAXIMUM VALUE CALCULATIONS

A. Minimum 8-species requirement for Tier I is **not** met (Tier II): **Yes**.

1. Minimum requirements met = 2 (iii, iv).

2. Minimum requirements missing for Tier I = 6 (i, ii, v, vi, vii, viii).

3. Acute Factor = 13.

4. Toxicity is **not** dependent upon a water quality characteristic: **Yes**.

   a. FAV calculation: Tier II FAV = Lowest GMAV / Acute Factor = 13,170 ug/l / 13 = **1,013.0769 ug/l**.

5. Toxicity **is** dependent upon a water quality characteristic: **No**.

   a. Slope = _____ (Table_____).

   b. FAV equation: Tier II FAV = _____ = _____ = _____.

6. Go to C.

B. Minimum 8-species requirement **is** met (Tier I): **No**.

1. Toxicity is **not** dependent upon a water quality characteristic: _____.

   a. Tier I FAV calculation: _____ (_____).

2. Toxicity **is** dependent upon a water quality characteristic: _____.

   a. Slope = _____ (Table_____).

   b. Ranked genus mean acute intercepts: Table _____.

   c. Final acute intercept = _____ (_____).

   ln of final acute intercept = _____.

   d. FAV equation: Tier I FAV = _____ = _____ = _____.

C. Aquatic Maximum Value (AMV) calculation: Tier II AMV = Tier II FAV / 2 = 1,013.0769 ug/l / 2 = **506.53846 ug/l**.

RULE 57 AQUATIC VALUES WORK SHEET-CHRONIC

Chemical Name: **2-Nitrophenol**
CAS #: **88-75-5**
Developed by: **Christopher Hull**
Date: **1/14/10**

FINAL CHRONIC VALUE CALCULATIONS

A. Minimum 8-species requirement for GMCV-based Tier I is not met: **Yes**.

1. Minimum requirements met = 0.

2. Minimum requirements missing = 8.

B. Minimum 8-species requirement for GMCV-based Tier I is met: **No**.

1. Toxicity is not dependent upon a water quality characteristic: _____.

   a. Tier I FCV = _____ (Fig. _____).

2. Toxicity is dependent upon a water quality characteristic: _____.

   a. Slope = _____ (Table_____).

   b. Ranked Genus Mean Chronic Intercepts: Table _____.

   c. Final Chronic Intercept = _____ (Fig. _____).

   d. ln of Final Chronic Intercept = _____.

   e. FCV equation = Tier I FCV = _____ = _____ = _____.

C. Acute-to-Chronic-Ratio method: **Yes**.

1. Acute-to-Chronic Ratio:

   a. Number of ACRs meeting minimum data requirements = 0 (Table-----).

   b. Tier II Acute-to-Chronic Ratio = Default Value = Xg(18, 18, 18) = **18**.

2. Toxicity is not dependent upon a water quality characteristic: **Yes**.

   Tier II FCV = Tier II FAV / Tier II ACR = 1,013.0769 ug/l / 18 = **56.282051 ug/l**.

3. Toxicity is dependent upon a water quality characteristic: **No**.

   a. Slope = _____ (Table_____).

   b. Aquatic Chronic Intercept = _____ (Table _____).

   c. ln of Aquatic Chronic Intercept = _____.

   d. FCV equation = Tier _____ FCV = _____ = _____ = _____.

2-NITROPHENOL REFERENCES, 1/10

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* For abbreviations used, see Appendix, attached.