Rule 57 Aquatic Values Data Sheet

Chemical name: *trans*- 1,3-Dichloropropylene
CAS #: 10061-02-6

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Approval date: 9/21/07
Literature search date: 8/14/2006

FAV: 160 ug/L *(Tier 1)*
AMV: 81 ug/L ← *(Tier 1)*
FCV: 9.0 ug/L ← *(Tier 2)*
Acute CF: ---- *Chronic CF:* ----

ACUTE DATA

Species	Test type (EC or LC50)	Duration (hours)	Test conditions (FT,M, etc.)	Hardness mg/L	Chemical	LC50/EC50 ug/L	SMAV ug/L	GMAV ug/L	Rank	Referer
Fathead minnows (*Pimephales promelas*)	LC50	96	FT,M	46		239	239	239	1	1
	LC50	96	S,U	44		4100*				2
	LC50	96	S,U	35		2320*				3
Water flea (*Daphnia magna*)	EC50	48	S,U	44		90	747	747	2	2
	LC50	48	S,U	72		6,200				4
Walleye (*Stizostedion vitreum*)	LC50	96	S,U	272		1,080	1,080	1,080	3	2
Midge (*Chironomus riparius*)	LC50	48	S,U	46		1,350	1,350	1,350	4	5
Scud (*Gammarus minus*)	LC50	96	S,U	44		2,000	2,000	2,000	5	5
Largemouth bass (*Micropterus salmoides*)	LC50	96	S,U	272		3,650	3,650	3,650	6	2
Rainbow trout (*Oncorhynchus mykiss*)	LC50	96	S,U	51		5,360	5,360	5,360	7	3

* This value not used in the derivation of the SMAV because the results from FT,M tests are a higher priority than the results from S,U tests.

Stonefly (*Tallaperla maria*)	LC50	96	S,U	48		5,420	5,420	5,420	8	5
Ramshorn snail (*Helisoma trivolvis*)	LC50	96	S,U	41		8,100	8,100	8,100	9	5

CHRONIC DATA

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

No useful chronic studies available.

References:

1. Geiger, D.L., L.T. Brooke, and D.J. Call. 1990. Acute Toxicities of Organic Chemicals to Fathead Minnows (*Pimephales promelas*). Center for Lake Superior Environmental Studies, University of Wisconsin-Superior, Superior, Wi. 5:332p.

2. Mayer, F.L., Jr., and M.R. Ellersieck. 1986. Manual of Acute Toxicity: Interpretation and Data Base for 410 Chemicals and 66 Species of Freshwater Animals. Resource Publication Number 160, U.S. Department of Interior, Fish and Wildlife Service, Washington, DC: 505p.

3. Birge, W.J., J.A., Black, S.T. Ballard, and W.E. McDonnell. 1982. Acute toxicity testing with freshwater fish. In: Aquatic Toxicity Studies of Five Priority Pollutants, Rep. No. 4398, NUS Corp, Houston, TX:47p.

4. LeBlanc, G.A. 1980. Acute Toxicity of Priority Pollutants to Water Flea (*Daphnia magna*). Bull. Environ. Contam. Toxicol. 24(5):684-691.

5. Horne, J.D. and B.R. Oblad. 1983. Aquatic Toxicity Studies of Six Priority Pollutants. Rep. No. 4380, NUS Corporation, Houston Environmental Center TX:99p.

References of appropriate duration but not used:

1. Buccafusco, R.J., S.J. Ells, and G.A. LeBlanc. 1981. Acute toxicity of priority pollutants to bluegill (*Lepomis macrochirus*). Bull. Environ. Contam. Toxicol. 26(4):446-452.

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

Chemical Name: trans-1,3-dichloropropylene
C.A.S. #: 10061-02-6

AQUATIC MAXIMUM VALUE CALCULATIONS

A. Minimum 8 species requirement is **not** met. Minimum requirements met = ___
Minimum requirements missing for Tier I =
Acute factor = ____

1. Toxicity **is not** dependent on a water characteristic

   a. FAV calculation

2. Toxicity **is** dependent on a water characteristic

   a. Slope = (Table ___)

   b. FAV equation:

3. Go to C.

B. Minimum 8 species requirement **is** met (Tier I)

1. Toxicity **is not** dependent on a water characteristic

   a. FAV calculation: Att. ___ FAV = 162.1132 ug/L = 160 ug/L

2. Toxicity **is** dependent on a water characteristic

   a. Slope = (Table ___)

   b. Ranked genus mean acute intercepts: Table

   c. Final acute intercept = (Att. ___)

   ln of final acute intercept =

   d. FAV equation =

C. Aquatic Maximum Value (AMV) calculation:

AMV = 162.1132 ug/L ÷ 2 = 81.1 ug/L = 81 ug/L

FINAL CHRONIC VALUE CALCULATIONS

A. Minimum 8 species requirement is **not** met (Tier II). Minimum requirements met = ___
Minimum requirements missing for Tier I =

1. Acute to chronic ratio

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

   b. Acute to chronic ratio = 18

2. Toxicity **is not** dependent on a water characteristic

   FCV = 162.1132 ug/L ÷ 18 = 9.01 ug/L = 9.0 ug/L

3. Toxicity **is** dependent on a water characteristic

   a. Slope = (Table __)

   b. Aquatic chronic intercept = (Table __)

   ln of aquatic chronic intercept =

   c. FCV equation =

B. Minimum 8 species requirement **is** met (Tier I)

1. Toxicity **is not** dependent on a water characteristic

   a. FCV = ___ (Att. ___)

2. Toxicity **is** dependent on a water characteristic

   a. Slope = (Table __)

   b. Ranked genus mean chronic intercepts: Table ___

   c. Final chronic intercept = _____ (Att. ___); ln of final chronic intercept =

   d. FCV equation =