

### Rule 57 Aquatic Values Data Sheet

9/25/2007

Chemical or product name: Carbon Tetrachloride

Manufacturer (WTAs): -----

C.A.S #: 56-23-5

Developed by: Christopher Hull FAV\*: 1,400 ug/l

Approved by: D. Bush AMV\*: 690 ug/l

Approval date: 9/27/07 FCV\*: 77 ug/l

CAS: 8/07/07; AQUIRE: 8/06/07 Acute CF: ----

Clearinghouse search date: 12/27/95

(Tier: II)

(Tier: II)

(Tier: II)

Chronic CF: ----

#### 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
Amphipod ( <i>Gammarus pseudolimnaeus</i> )	LC50	96	FT,M	49.2	----	11,100	11,100	11,100	1	1
Fathead Minnow ( <i>Pimephales promelas</i> )	EC50	96	FT,M	49.2	----	20,800	20,800	20,800	2	2
	LC50	96	FT,M	49.2	----	41,400 <sup>1</sup>				1,2
	LC50	96	S,U	52.3	----	141,000 <sup>2</sup>				1
	LC50	96	S,M <sup>3</sup>	52.3	----	29,200 <sup>2</sup>				1
	LC50	96	S,M <sup>4</sup>	52.3	----	10,400 <sup>2</sup>				1
Water Flea ( <i>Daphnia magna</i> )	LC50	48	S,U	173	----	35,000	35,000	35,000	3	3

9/21/04

## 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
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NO SUITABLE DATA WERE FOUND.

\*Value rounded to 2 significant figures.

<sup>1</sup> Value not used to calculate SMAV because EC50 preferred over LC50 from the same test.

<sup>2</sup> Value not used to calculate SMAV because FT,M test data are preferred over data from other test types.

<sup>3</sup> 0-hr. analyticals, only.

<sup>4</sup> Complete analyticals.

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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: CARBON TETRACHLORIDE  
 C.A.S. #: 56-23-5

AQUATIC MAXIMUM VALUE CALCULATIONS, 9/07

A. Minimum 8 species requirement is **not** met (Tier II). Minimum requirements met = 3.  
 Minimum requirements missing for Tier I = 5 (i, ii, vi, vii, viii).  
 Acute factor = 8.

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

a. FAV calculation  $FAV = \frac{\text{Lowest AMAU}}{\text{Acute Factor}} = \frac{11,100 \text{ ug/l}}{8} = 1,387.5 \text{ ug/l}$

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.     

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:  $AMV = \frac{FAV}{2} = \frac{1,387.5 \text{ ug/l}}{2} = 693.75 \text{ ug/l}$

CARBON TETRACHLORIDE

Chris Hall

FINAL CHRONIC VALUE CALCULATIONS, 9/07

A. Minimum 8 species requirement is **not** met (Tier II). Minimum requirements met = 0  
Minimum requirements missing for Tier I = 8

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

$$FCV = \frac{FAU}{ACR} = \frac{1,387.5 \mu g/L}{18} = \underline{77.083333 \mu g/L}$$

~~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 =~~

## CARBON TETRACHLORIDE REFERENCES, 9/07

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\* For abbreviations used, see Appendix (attached).

## APPENDIX: REFERENCE ABBREVIATIONS USED, 9/07

AMD = ambient monitoring data.  
BCF = bioconcentration factor.  
D = data (as a suffix to other abbreviations listed here).  
DEP = depuration data.  
DO = data only (as a suffix to other abbreviations listed here).  
EF = environmental fate.  
GWD = groundwater data.  
IITM/C = insufficient information on test methods / conditions.  
ISD = *in situ* data.  
LD = leachate data.  
LSER = Linear Solvation Energy Relationship.  
MCD = microcosm data.  
MIX = mixture (not chemical-specific) test data.  
MED = model ecosystem data.  
MET = metabolism  
MOD = model (theoretical) data / analysis.  
NA = not available at this time.  
ND = no data (on this chemical).  
NIL = not in (MDEQ) Library.  
NR = not reviewed.  
NUE = no useable endpoint.  
O = only (as a suffix to other abbreviations listed here).  
PD = phytotoxicity data.  
PHYS = physiological data.  
QSAR = Quantitative Structure-Activity Relationship.  
RWD = receiving water data.  
SD = secondary data.  
SED = sediment data or testing.  
SW = saltwater.  
TATO = test animals too old.  
TDI = test duration inappropriate.  
TM/CU = test methods / conditions unacceptable.  
TONNA = test organisms not North American.  
TONS = test organisms not suitable.  
UD or UP = uptake data.  
WET = whole-effluent testing.