MINNESOTA POLLUTION CONTROL AGENCY
AQUATIC LIFE CRITERIA

Page 1 SUMMARY

Chemical: Methylene Chloride	CAS# 75092	Date April 22, 1999

B. Minnesota Criterion: ug/l (unless noted otherwise)					
Water Class	**Use**	**CC**	**MC**	**FAV**	**Basis[1]**
1,2A	DW, Salmonid	45	13,875	27,749	PCA Hc
1,2Bd	DW, NonSalmonid	46	13,875	27,749	PCA Hc
2B, 2C, 2D	NonSalmonid	1940	13,875	27,749	PCA Hc
	Other				

Toxicity related to water quality?: No
If yes, above criteria values determined for:
Slope: Acute:
Chronic:

Formulas:	**MPCA**	**EPA**
CC:	none	none
MC:		
FAV:		

Notes:

C. EPA Criterion: ug/l	CCC:	Basis:
Date: none	MC:	Basis:
	FAV:	Basis:

D. Other Criteria ug/l	**Source**
none	

E. Notes: Federal MCL is 5 ug/l.

[1] Criteria basis codes for part B:
EPA = From EPA criterion; GLI = Great Lakes Initiative methods used
PCA = Criterion developed by Minnesota Pollution Control Agency staff
T1 = Direct aquatic life toxicity, EPA national criteria procedures used
T2 = Direct aquatic life toxicity, EPA advisory procedures used
Hs = Human health systemic effects
Hc = Human health carcinogenic effects
R = Tissue residue (bioaccumulation)
W = Wildlife effects
O = Organoleptic (taste and odor)
Other = Criterion based on other end point

MINNESOTA POLLUTION CONTROL AGENCY
AQUATIC LIFE CRITERIA

Page 2 DIRECT AQUATIC LIFE TOXICITY - EPA Criterion Available

Chemical: Methylene Chloride	CAS# 75092	Date April 22, 1999

B.	EPA Criterion: ug/l	CCC: none	Basis:
	Date:	MC:	Basis:
		FAV:	Basis:

1.	Related to water quality?: no			
2.	Toxicity:	FAV:	N:	ACR:
	ug/l	Chronic value:	N:	
3.	Residue			
	FDA action level:			
	BCF Final: 2.3	N total:	N used: Estimated BCF	
	geo mean at 1% lipid:			
	% lipid:			
	geo man unadjusted for lipid:			

C. MPCA Evaluation of EPA Criterion

1. Four lowest GMAVs:

2. Commercially or recreationally important species:

3. Plant data:

4. Extrapolation of water quality effects:

5. Chronic data No. of values:
No. below criterion:

Notes: See GLI Tier II Method

6. ACRS	ACR used by EPA: none	N:
	Geo. mean, all ACRs:	N:
	ACR used by MPCA: See page 3	N:

Notes:

D. Separate Cool/Warm Water Criterion, ug/l
No. of Salmonids deleted from lowest 4 GMAVs:
N(nonsal): FAV: MC: CC:
Adjustments to FAV:

Notes: See page 3 of the summary sheets

Summary of changes made to EPA criterion

MINNESOTA POLLUTION CONTROL AGENCY AQUATIC LIFE CRITERIA

Page 3 DIRECT AQUATIC LIFE TOXICITY

No EPA criterion available

A. Chemical: Methylene Chloride	CAS# 75092	Date April 22, 1999

B. EPA National Method		
1. Data requirements:	Salmonid (2A water only):	
	Osteichthyes (fish):	Lepomis macrochirus
	Chordata (fish, amphibian):	Pimephales promelas
	Planktonic crustacean:	Daphnia magna
	Benthic crustacean:	
	Aquatic insect:	
	Phylum other than Arthropoda or Chordata:	
	Second insect or phylum not already rep.:	

2. GMAVs	Lowest 4(2A):	Lowest 4(2B,2C, 2D):
ug/l		
	N:	N:
3. FAV:	2A: See GLI Tier II methods	2B, 2C, 2D: See GLI Tier II methods

4. Adjustments to FAVs:		
5. Chronic data: 108,236	No. 1	Species: Pimephales promelas
mean values		
ug/l		

6. ACR Measured:	Acute value	Chronic value	ACR
	502,000	108,236	4.63
Generic: 18	Generic		18
	Generic		18
Final: 11.4			

7. Final Plant Value: >500,000 ug/l
8. Chronic Criterion (FAV/ACR) See GLI Tier II methods

C. GLI Tier II Method	
1. Data requirements:	Fish: Lepomis macrochirus
	Daphnidae: Daphnia magna
	Plant for herbicide:
	2nd Plant for herbicide:
No. of minimum data set for tier I evaluation 3	Insect for pesticide:
Adjustment Factor: 8.0	

2. Lowest GMAV: 221,990 ug/l — Species: Daphnia magna & Lepomis macrochirus
3. FAV: 27,749 ug/l — MC: 13,874.5 ug/l
4. Chronic data: See B.5.
5. ACR: 11.4 See B.6.
6. CC: 2434 ug/l
7. Citation for lowest GMAV: AQUIRE Refs. 5590 and 5184. Also EPA 1978.

D. Notes:

MINNESOTA POLLUTION CONTROL AGENCY
AQUATIC LIFE CRITERIA

Page 4 HUMAN HEALTH

Chemical: Methylene chloride	CAS# 75092	Date April 22, 1999

B. EPA Human Health Criterion: ug/l	DW and fish: 1.9	fish only: 157	DW only: 5 ug/l MCL 1999
ADI/Ref.dose: mg/kg/day	Cancer Potency Slope: 0.18272		
Final BCF: 0.91 (chloroform is 3.75)	%lipid: 3		
RSC: Criterion is for cummulative halomethanes and is based on chloroform. The MCL is new (1999)			

C. Minnesota Human Health Criterion			
1. Ref.dose: NA mg/kg/day	Source:		
RSC: NA	Source:		
2. Cancer Potency Slope: 0.0075	Source: MDH 1999-Personal Communication		
3. Measured BAFs: Species/Tissue	BAF	%lipid	Norm BAF
1. GLI Trophic Level 4 BAF	2.08	6.0	
2. GLI Trophic Level 4 BAF	1.27	1.5	
3.			
4.			
Geo mean:			
4. Measured BCFs: Species/Tissue	BCF	%lipid	Norm. BCF
1.			
2.			
3.			
4.			
5.			
6.			
Geo mean:			
5. Edible portion BAF or BCF	BAF		BCF
Cold water: 6.0 % lipid			
Warm water: 1.5 % lipid			
6. Geo mean unadjusted for lipid:			
7. log Kow: 1.25 adjust. for % lipid:	meas.	QSAR: X	Est. BCF:
8. Parachor: 145			
9. BCF to BAF conversion factor: NA			
10. Final BAF: 2A: 2.08	2B,2C, 2D: 1.27		
11. Criteria: ug/l 2A: 45.25	2Bd: 45.79	2B/2C, 2D: 1940	RAL/HBV: 50 (1999 HRL)

D. Organoleptic: NA ug/l	Source:

E. Notes: Federal MCL is lower than all other criteria for class 2A and 2Bd waters

Table 1. Acute and Chronic Data: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	Conc (ug/L)	Life Stage	Dur (days)	Ex Ty	FW SW	Temp. (C)	Hardness (mg/L)	Comments	D C	Ref No.
75092 Methylene chloride											
Brine shrimp Artemia salina	LC50 MOR	1.44 mmol/L	NAUPLII, 24 H	1	NR U	SW	25*			C	18365
Brine shrimp Artemia salina	LC50 MOR	1.14 mmol/L	NAUPLII, 48 H	1	NR U	SW	25*			C	18365
Brine shrimp Artemia salina	LC50 MOR	1.03 mmol/L	NAUPLII, 72 H	1	NR U	SW	25*			C	18365
Brachionus calyciflorus Rotifer	LC50 MOR	23800 umol/L	NR	1	NR U	FW				M	13669
Bufo woodhousei fowleri Fowler's toad	EC50 TER	>32000	EMBRYO	3	F M	FW	21.5	106.8		C	6187
Bufo woodhousei fowleri Fowler's toad	EC50 TER	>32000	EMBRYO	7	F M	FW	21.5	106.8		C	6187
Carassius auratus Goldfish	LC50 MOR	420000	NR	1	S U	FW				M	5773
Cyprinodon variegatus Sheepshead minnow	LC50 MOR	370000	8-15 MM, 14-28 D	1	S U	SW	25 - 31*			C	10366
Cyprinodon variegatus Sheepshead minnow	LC50 MOR	360000	8-15 MM, 14-28 D	2	S U	SW	25 - 31*			C	10366
Cyprinodon variegatus Sheepshead minnow	LC50 MOR	360000	8-15 MM, 14-28 D	3	S U	SW	25 - 31*			C	10366
Cyprinodon variegatus Sheepshead minnow	LC50 MOR	330000	8-15 MM, 14-28 D	4	S U	SW	25 - 31*			C	10366
Cyprinodon variegatus Sheepshead minnow	NOEC MOR	130000	8-15 MM, 14-28 D	4	S U	SW	25 - 31*			M	10366
Daphnia magna Water flea	MOR	68000	<24 H	2	S U	FW	22	173		M	5184

Table 1. Acute and Chronic Data: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	Conc (ug/L)	Life Stage	Dur (days)	Ex Ty	FW SW	Temp. (C)	Hardness (mg/L)	Comments	D C	Ref No.
75092 Methylene chloride											
Daphnia magna Water flea	EC0 NR	1.707 g/L	NR	1	S U	FW				M	707
Daphnia magna Water flea	EC100 NR	2.5 g/L	NR	1	S U	FW				M	707
Daphnia magna Water flea	EC50 IMM	10700 umol/L	NR	1	NR U	FW				M	13669
Daphnia magna Water flea	EC50 IMM	1959000	6-24 H	1	S U	FW	20			M	846
Daphnia magna Water flea	EC50 IMM	22.86 mM	<24 H, NEONATE	1	S U	FW	21			C	16756
Daphnia magna Water flea	EC50 IMM	1599 mmol/m3 (136 mg/l)	4-6 D	2	S U	FW	23		test organisms too old	M	11926
Daphnia magna Water flea	EC50 IMM	1682000	6-24 H	2	S U	FW	20			M	846
Daphnia magna Water flea	EC50 NR	2.1 g/L	NR	1	S U	FW				M	707
Daphnia magna Water flea	LC50 MOR	310000	<24 H	1	S U	FW	22	173		C	5184
Daphnia magna Water flea	LC50 MOR	2270000	24 H	1	S U	FW	20 - 22	70		C	5718
Daphnia magna Water flea	LC50 MOR	220000	<24 H	2	S U	FW	22	173		C	5184
Daphnia magna Water flea	LC50 MOR	224,000	NR	2	SU	FW			from 1980 EPA criteria		EPA 1978
Fundulus heteroclitus Mummichog	LC50 MOR	97000	JUVENILE, < 23 D	2	S M	SW	20			C	3163
Lepomis macrochirus Bluegill	LC50 MOR	230000	JUVENILE,0.32-1.2 G	1	S U	FW	21 - 23	32 - 34		C	5590
Lepomis macrochirus Bluegill	LC50 MOR	220000	JUVENILE,0.32-1.2 G	4	S U	FW	21 - 23	32 - 34		C	5590
Lepomis macrochirus	LC50 MOR	224,000	NR	4	SU	FW			from 1980		EPA

Table 1. Acute and Chronic Data: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	Conc (ug/L)	Life Stage	Dur (days)	Ex Ty	FW SW	Temp. (C)	Hardness (mg/L)	Comments	D C	Ref No.
75092 Methylene chloride Bluegill									EPA criteria		1978
Mysidopsis bahia Opossum shrimp	LC50 MOR	256000	NR	4	NR U	SW				M	9607
Oryzias latipes Medaka, high-eyes	LC50 MOR	1100000	NR	1	S U	FW	10			M	12497
Oryzias latipes Medaka, high-eyes	LC50 MOR	1100000	NR	1	S U	FW	20			M	12497
Oryzias latipes Medaka, high-eyes	LC50 MOR	840000	NR	1	S U	FW	30			M	12497
Oryzias latipes Medaka, high-eyes	LC50 MOR	1100000	NR	2	S U	FW	10			M	12497
Oryzias latipes Medaka, high-eyes	LC50 MOR	1100000	NR	2	S U	FW	20			M	12497
Oryzias latipes Medaka, high-eyes	LC50 MOR	840000	NR	2	S U	FW	30			M	12497
Palaemonetes pugio Daggerblade grass shrimp	LC50 MOR	108500	JUVENILE, < 20 MM	2	S M	SW	20			C	3163
Physa sp Pouch snail	NR-LETH MOR	500000	MICROCOSM	2	S U	FW	21			M	3881
Pimephales promelas Fathead minnow	LOEC GRO	142000	< 24 H, EMBRYO	28	F M	FW	25	73 - 82	based on wt.	M	12567
Pimephales promelas Fathead minnow	NOEC GRO	82500	< 24 H, EMBRYO	28	F M	FW	25	73 - 82	based on wt.	M	12567
Pimephales promelas Fathead minnow	EC50 IMM	112800	1.04 G,49.0 MM	1	F M	FW	12			C	973
Pimephales promelas Fathead minnow	EC50 IMM	99000	1.04 G,49.0 MM	2	F M	FW	12			C	973
Pimephales promelas	EC50 IMM	99000	1.04 G,49.0 MM	3	F M	FW	12			C	973

Table 1. Acute and Chronic Data: Methylene Chloride (Dichloromethane)

Species Latin Name / Species Common Name	Endpoint Effect	Conc (ug/L)	Life Stage	Dur (days)	Ex Ty	FW SW	Temp. (C)	Hardness (mg/L)	Comments	D C	Ref No.
75092 Methylene chloride											
Fathead minnow											
Pimephales promelas	EC50 IMM	99000	1.04 G,49.0 MM	4	F M	FW	12		temp too cold	C	973
Fathead minnow											
Pimephales promelas	LC50 MOR	268000	1.04 G,49.0 MM	1	F M	FW	12			C	973
Fathead minnow											
Pimephales promelas	LC50 MOR	265000	1.04 G,49.0 MM	2	F M	FW	12			C	973
Fathead minnow											
Pimephales promelas	LC50 MOR	232400	1.04 G,49.0 MM	3	F M	FW	12			C	973
Fathead minnow											
Pimephales promelas	LC50 MOR	193000	1.04 G,49.0 MM	4	F M	FW	12		temp too cold	C	973
Fathead minnow											
Pimephales promelas	LC50 MOR	310000	1.04 G,49.0 MM	4	S U	FW	12		temp too cold	C	973
Fathead minnow											
Pimephales promelas	LC50 MOR	502000	JUVENILE	4	F M	FW	25		use for ACR	C	12567
Fathead minnow								73 - 82			
Pimephales promelas	LC50 MOR	330000	30 D, 17.6 MM, 0.066 G	4	F M	FW	25.4	45.1		C	12858
Fathead minnow											
Pimephales promelas	LC50 MOR	471000	JUVENILE	8	F M	FW	25			C	12567
Fathead minnow								73 - 82			
Rana catesbeiana	EC50 TER	30610	EMBRYO	4	F M	FW	20.7	106.8		C	6187
Bullfrog											
Rana catesbeiana	EC50 TER	17780	EMBRYO	8	F M	FW	20.7	106.8		C	6187
Bullfrog											
Rana palustris	EC50 TER	>32000	EMBRYO	0.33	F M	FW	21.5	106.8		C	6187
Pickeral frog											
Rana palustris	EC50 TER	>32000	EMBRYO	4	F M	FW	21.5	106.8		C	6187
Pickeral frog											

Table 2a. Chronic Data: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	Conc (ug/L)	Dur (days)	Ex Ty	FW SW	Comments	D C	Ref No.
75092 Methylene chloride								
Pimephales promelas Fathead minnow	MATC	108,236	28	F	M FW	based on wt. LOEC=142 mg/l NOEC=82.5mg/l	M	12567

Table 2b. Acute to Chronic Ratios: Methylene Chloride (Dichlormethane)

Species Latin Name Species Common Name	Acute Value (ug/l)	Chronic Value (ug/L)	Ratio	Ref.
Pimephales promelas Fathead minnow	502,000	108,236	4.63	12567
Generic ACR			18	
Generic ACR			18	

Geo. Mean of 3 ACRs = 11.44

Table 3a. Genus Mean Acute Values: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	Conc (ug/L)	Dur (days)	Ex Ty	FW SW	SMAV (ug/l)	GMAV (ug/l)	Ref No.
75092 Methylene chloride								
Daphnia magna Water flea	LC50 MOR	220000	2	S U	FW	221,990	221,990	5184
Daphnia magna Water flea	LC50 MOR	224,000	2	SU	FW			EPA 1978
Lepomis macrochirus Bluegill	LC50 MOR	224,000	4	SU	FW	221,990	221,990	EPA 1978
Lepomis macrochirus Bluegill	LC50 MOR	220000	4	S U	FW			5590
Pimephales promelas Fathead minnow	LC50 MOR	502000	4	F M	FW	407,013	407,013	12567
Pimephales promelas Fathead minnow	LC50 MOR	330000	4	F M	FW			12858

Table 3b. Ranked Genus Mean Acute Values: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect		Dur (days)	Ex Ty		FW SW	GMAV (ug/l)
75092 Methylene chloride							
Pimephales promelas Fathead minnow	LC50	MOR	4	F	M	FW	407,013
Pimephales promelas Fathead minnow	LC50	MOR	4	F	M	FW	
Daphnia magna Water flea	LC50	MOR	2	S	U	FW	221,990
Daphnia magna Water flea	LC50	MOR	2	SU		FW	
Lepomis macrochirus Bluegill	LC50	MOR	4	SU		FW	221,990
Lepomis macrochirus Bluegill	LC50	MOR	4	S	U	FW	

N = 3
GLI Adjustment Factor = 8.0
FAV = 27,749 ug/l

Table 4a. Plant Values: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	Conc (ug/L)	Life Stage	Dur (days)	Ex Ty	FW SW	Temp. (C)	Hardness (mg/L)	Comments	D C	Ref No.
75092 Methylene chloride											
Algae Algae, algal mat	NR DIV	137000 - 156000	PERIPHYTON	.000-90	E U	FW				M	3881
Artemia salina	LC50 MOR	12300 umol/L	NR	1	NR U	SW				M	13669
Elodea canadensis Waterweed	PSE	500000 - 1000000	MICROCOSM	3.00-7	S U	FW	21			I	3881
Groenlandia densa Pondweed	NR-LETH MOR	2000000	MICROCOSM	7	S U	FW	21			M	3881
Lemna minor Duckweed	EC50 GRO	2000000	MICROCOSM	<=21.0	S U	FW	21			M	3881
Microcystis aeruginosa Blue-green algae	NR PGR	550000	NR	8	NR U	FW				I	10116
Scenedesmus subspicatus Green algae	NR-LETH MOR	1000000	MICROCOSM	<=21.0	S U	FW	21			M	3881
Selenastrum capricornutum Green algae	EC50 CLR	>500000	NR	1	NR U	FW				M	9607
Selenastrum capricornutum Green algae	EC50 CLR	>500000	NR	2	NR U	FW				M	9607
Selenastrum capricornutum Green algae	EC50 CLR	>500000	NR	3	NR U	FW				M	9607
Selenastrum capricornutum Green algae	EC50 CLR	>500000	NR	4	NR U	FW				M	9607
Selenastrum capricornutum Green algae	EC50 PGR	>500000	NR	4	NR U	FW				M	9607
Selenastrum capricornutum Green algae	NOEC CLR	56000	NR	4	NR U	FW				M	9607
Selenastrum capricornutum	EC50 PGR	>662,000	NR	4	NRU	FW					9607

Table 4a. Plant Values: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	Conc (ug/L)	Life Stage	Dur (days)	Ex Ty	FW SW	Temp. (C)	Hardness (mg/L)	Comments	D C	Ref No.
75092 Methylene chloride Green algae											
Skeletonema costatum Diatom	EC50 PSE	>662000	NR	4	NR	U SW				M	9607

Table 4b. Acceptable Plant Values: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect		Conc (ug/L)	Life Stage	Dur (days)	Ex Ty	FW SW	Temp. (C)	Hardness (mg/L)	Comments	D C	Ref No.
75092 Methylene chloride												
Selenastrum capricornutum Green algae	EC50	PGR	>662,000	NR	4	NRU	FW					9607
Selenastrum capricornutum Green algae	EC50	CLR	>500000	NR	4	NR U	FW				M	9607
Selenastrum capricornutum Green algae	EC50	PGR	>500000	NR	4	NR U	FW				M	9607

Table 5a. AQUIRE Bioconcentration/Bioaccumulation Data: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	BCF/BAF Value	Percent Lipid	Tissue Type	Life Stage	Dur (days)	Ex Ty	FW SW	Comments	D C	Ref No.
75092 Methylene chloride											
Daphnia magna Water flea	BCF RSD	<1			NR	12.0-15	S	M FW		M	4459
Elodea canadensis Waterweed	BCF RSD	5			2 STEMS	12.0-15	S	M FW		C	4459
Elodea canadensis Waterweed	BCF RSD	3			2 STEMS	12.0-15	S	M FW		C	4459
Fontinalis antipyretica Moss	BCF RSD	41			2-3 BLADES	12.0-15	S	M FW		C	4459
Fontinalis antipyretica Moss	BCF RSD	577			2-3 BLADES	12.0-15	S	M FW		C	4459
Fontinalis antipyretica Moss	BCF RSD	9			2-3 BLADES	12.0-15	S	M FW		C	4459
Groenlandia densa Pondweed	BCF RSD	9			6 STEMS	12.0-15	S	M FW		C	4459
Groenlandia densa Pondweed	BCF RSD	10			6 STEMS	12.0-15	S	M FW		C	4459
Groenlandia densa Pondweed	BCF RSD	34			6 STEMS	12.0-15	S	M FW		C	4459
Groenlandia densa Pondweed	BCF RSD	74			6 STEMS	12.0-15	S	M FW		C	4459
Groenlandia densa Pondweed	BCF RSD	5			6 STEMS	12.0-15	S	M FW		C	4459
Groenlandia densa Pondweed	BCF RSD	1			6 STEMS	12.0-15	S	M FW		C	4459
Groenlandia densa Pondweed	BCF RSD	5			6 STEMS	12.0-15	S	M FW		C	4459
Groenlandia densa Pondweed	BCF RSD	10			6 STEMS	12.0-15	S	M FW		C	4459
Groenlandia densa	BCF RSD	15			6 STEMS	12.0-	S	M FW		C	4459

Table 5a. AQUIRE Bioconcentration/Bioaccumulation Data: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	BCF/BAF Value	Percent Lipid	Tissue Type	Life Stage	Dur (days)	Ex Ty	FW SW	Comments	D C	Ref No.
75092 Methylene chloride											
Pondweed						15					
Lemna minor	BCF RSD	54			2-3 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	39			2-3 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	7			12-15 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	15			5-8 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	28			12-15 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	4			5-8 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	112			2-3 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	13			2-3 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	4			5-8 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	<1			5-8 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Lemna minor	BCF RSD	<1			5-8 COLONIES	12.0-15	S	M FW		C	4459
Duckweed											
Physa fontinalis	BCF RSD	8			NR	12.0-15	S	M FW		M	4459
Bladder snail											
Physa fontinalis	BCF RSD	7			NR	12.0-15	S	M FW		M	4459
Bladder snail											
Physa fontinalis	BCF RSD	5			NR	12.0-15	S	M FW		M	4459
Bladder snail											
Physa fontinalis	BCF RSD	<1			NR	12.0-15	S	M FW		M	4459
Bladder snail											

Table 5a. AQUIRE Bioconcentration/Bioaccumulation Data: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	BCF/BAF Value	Percent Lipid	Tissue Type	Life Stage	Dur (days)	Ex Ty	FW SW	Comments	D C	Ref No.
75092 Methylene chloride Physa fontinalis Bladder snail	BCF RSD	<1			NR	12.0-15	S	M FW		M	4459

Table 5b. Final chosen Bioconcentration/Bioaccumulation Data: Methylene Chloride (Dichloromethane)

Species Latin Name Species Common Name	Endpoint Effect	BCF/BAF Value	Percent Lipid	Tissue Type	Life Stage	Dur (days)	Ex Ty	FW SW	Comments	D C	Ref No.
75092 Methylene chloride											
Environmental Outcomes staff chose to use the Trophic Level 4 BAF from the Great Lakes Iniatitive The percent lipid content was adjusted for each class 2 water.											
Class 2A waters (6% lipid)		2.08	6.0								
Class 2Bd, 2B, 2C, 2D (1.5% lipid)		1.27	1.5								