

**Appendix B**

**Properties of Volatile and Semi-volatile  
Chlorinated Hydrocarbons**

**Table B.1**  
**Properties of Volatile and Semivolatile Compounds**

ANALYTES	SYNONYMS	BOILING POINT	MELTING POINT	MOLECULAR WEIGHT	LOG OCTANOL/WATER PARTITION COEFFICIENT	Log Koc	Specific Gravity	Viscosity	Interfacial Tension	WATER SOLUBILITY	VAPOUR PRESSURE	MOBILITY CLASS	HENRY'S LAW CONSTANT
		°C @ 760 mm Hg	°C			mL/g	g/cm <sup>3</sup>			cp	dyne/cm		
1,1,1-Trichloroethane	Methyl chloroform	74.10	-30.40	133.42	2.49	2.18	1.339	1.20	45.00	1495	123.7	Moderate	8.00E-03
1,1,2-Trichloroethane	1,1,2-TCA	113.8	-36.50	133.42	2.07	1.75	1.440	0.12		4420*	30.3***	Very High	1.20E-03
1,1-Dichloroethene	1,1-Dichloroethylene	37.00	-122.1	96.94	2.13	1.81	1.218	0.36	37.00	273	591.0	Very High	1.90E-01
1,2-Dichloroethane	Ethylene dichloride, EDC	83.47	-36.36	98.96	1.48	1.15	1.235	0.80	30.00	8524	78.7*	Very High	9.77E-04
Benzene	N.A	80.10	5.50	78.11	2.13	1.92				1791	95.19	High	5.43E-03
Carbon Disulphide	N.A	46.00	-112.0	76.13	1.84	2.47	1.263	0.37	48.40	2100	298.0		1.33E-02
Carbon Tetrachloride	CTC	76.54	-23.00	153.84	2.83	2.62	1.594	0.97	45.00	805*	113.8	Moderate	3.04E-02
Chlorethane	Ethyl chloride	12.30	-138.7	64.52	1.43	0.51				5710*	766**	Very High	8.48E-03
Chlorethene	Vinyl chloride, VC	-13.37	-153.8	62.50	1.38	0.39				2763	2660		1.07E-02
Chloroform	Trichloromethane, CFM	61.70	-63.50	119.39	1.97	1.64	1.483	0.58	32.80	7950	246.0	Very High	4.35E-03
Chloromethane	Methyl chloroform	-24.20	-97.10	50.48	0.90	1.40			28.30	7400	3765***	Very High	8.82E-03
cis-1,2-Dichloroethene	cis-1,2-Dichloroethylene	60.30	-80.50	96.94	1.86					3500	200^^		3.37E-03
Cyclohexane	N.A	80.70	6.47	84.18	3.44					54.8	97.60		1.93E-01
Cyclopentane	Penamethylene	50.00	-94.00	70.14							400^		
Dichloromethane	Methylene chloride, DCM	39.75	-95.10	84.94	1.25	0.94	1.327	0.43		13000	434.90		2.68E-03
Ethene	Ethylene	-104.0	-169.0	28.05									
Ethyl benzene	N.A	136.2	-94.97	106.16	3.15					161	9.53		8.44E-03
m-Xylene	1,3-Xylene	139.3	-47.40	106.17	3.20	3.20				146	8.30	Low	7.68E-03
o-Xylene	1,2-Xylene	144.4	-25.00	106.16	3.12	2.11				175	6.60	Low	5.10E-03
p-Xylene	1,4-Xylene	137-138	13-14	106.17	3.15	2.31				156	8.70	Low	7.68E-03
Tetrachloroethene	Tetrachloroethylene, PCE	121.2	-19.00	165.83	2.60	2.42	1.623	0.89	44.40	345	20.00	Moderate	1.04E-02
Toluene	Methylbenzene	110.6	-95.00	92.13	2.73	2.06				535	28.40	Moderate	5.94E-03
trans-1,2-Dichloroethene	trans-1,2-Dichloroethylene	47.50	-50.00	96.94	2.09	1.77	1.257	0.40	30.00	6300	265***	Very High	6.74E-03
Trichloroethene	trichloroethylene, TCE	87.00	-73.00	131.40	2.42	1.81	1.464	0.57	34.50	1100	69.00	Moderate	1.03E-02
Aniline	Benzenamine	184-186	-6.30	92.13	0.90	1.41	1.022	4.40	5.80	36070	0.49	V.Low	1.36E-01
1,3-Dichlorobenzene	m-Dichlorobenzene	173.0	-24.70	147.01	3.60	2.23	1.288	1.04		111*	2.00	V.Low	1.80E-03
1,4-Dichlorobenzene	p-Dichlorobenzene	174.0	53.10	147.01	3.52					87	1.76	V.Low	1.50E-03
1,2-Dichlorobenzene	o-Dichlorobenzene	180.5	-17.00	147.01	3.38	2.27	1.305	1.32	40.00	156	1.47	V.Low	1.20E-03
Hexachloroethane	N.A	186.0	186.8-187.4	236.74	3.82					50**	0.21***	V.Low	2.80E-03
1,3,5-Trichlorobenzene	N.A	208.5	63.00	181.46	3.82							V.Low	
1,2,4-Trichlorobenzene	1,2,4-TCB	213.5	17.00	181.45						31.3	0.40	V.Low	2.32E-03
Hexachlorobutadiene	Dolen-pur, HCBd	215.0	-21.00	260.76	4.08	3.98	1.454	1.42		4.0	0.15**	V.Low	2.60E-02
1,2,3,5-Tetrachlorobenzene	N.A	246.0	50-52	215.89	4.78	3.67	1.554	2.45				V.Low	
1,2,4,5-Tetrachlorobenzene	N.A	246.0	138.0	215.90								V.Low	
Pentachlorobenzene	N.A	275-277	82-85	250.34								V.Low	
Hexachlorobenzene	HCB	323-326	231.0	284.80	5.31					0.01	0.00	V.Low	1.30E-03

\* mg/L @ 20 °C                      ^ mm Hg @ 31 °C  
 \*\* mm Hg @ 12.5 °C                ^^ mm Hg @ 35 °C  
 \*\*\* mm Hg @ 20 °C