Table 1. Selected Physical Properties of DNAPL Chemicals

DNAPL	Boiling Point (deg. C)	Ref.	Melting Point (deg. C)	Ref.	Aqueous Solubility (mg/L)	Ref.	Vapor Pressure (mm Hg)	Ref.	Henry's Law Constant (atm-m3/mol)	Ref.
Aniline	184	b	-6	b	3.50E+04	b	3.00E-01	b	1.36E-01	b
o-Anisidine	224	b	6	b	1.30E+04	b	<0.1	b	1.25E-06	b
Benzyl alcohol	205	a	-15	a	3.50E+04	a	<1	a		a
Benzyl chloride	179	a	-39	a	4.93E+02	a	9.00E-01	a	3.04E-05	a
Bis(2-chloroethyl)ether	179	b	-47	b	1.02E+04	b	7.10E-01	b	1.30E-05	b
Bis(2-chloroisopropyl)ether	187	a	-20	sax	1.70E+03	a	8.50E-01	a	1.10E-04	a
Bromobenzene	156	b	-31	b	5.00E+02	b	3.30E+00	b	2.40E-03	b
Bromochloromethane	68	b	-87	b	1.67E+04	b(25)	1.41E+00	b(25)	1.44E-03	b
Bromodichloromethane	90	a	-57	a	4.50E+03	a(0)	5.00E+01	a	2.12E-04	a
Bromoethane	38	b	-119	b	9.14E+03	b	3.75E+02	b	7.56E-03	b
Bromoform	149	a	8	a	3.01E+03	a	4.00E+00	a	5.32E-04	a
Butyl benzyl phthalate	370	a	-35	a	2.82E+00	a	8.60E-06	a	1.30E-06	a
Carbon disulfide	46	a	-112	a	2.10E+03	a	2.98E+02	a	1.33E-02	a
Carbon tetrachloride	77	a	-23	a	8.00E+02	a	9.00E+01	a	3.02E-02	a
Chlorobenzene	132	a	-46	a	5.00E+02	a	9.00E+00	a	4.45E-03	a
2-Chloroethyl vinyl ether	108	a	-70	a	1.50E+04	a	2.68E+01	a	2.50E-04	a
Chloroform	62	a	-63	a	8.00E+03	a	1.60E+02	a	3.20E-03	a
1-Chlor-1-nitropropane	142	b	<25	b	6.00E+00	b	5.80E+00	b(25)	1.57E-01	b
2-Chlorophenol	175	a	9	a	2.85E+04	a	1.42E+00	a(25)	8.28E-06	a
4-Chlorophenyl phenyl ether	284	a	-8	a	3.30E+00	a(25)	2.70E-03	a(25)	2.20E-04	a
Chloropicrin	112	b	-64	b	2.00E+03	b	2.00E+01	b	8.40E-02	b
m-Chlorotoluene	160	f	-48	f	4.80E+01	e	4.60E+00	e	1.60E-02	e
o-Chlorotoluene	159	f	-34	f	7.20E+01	e	2.70E-03	f	6.25E-03	e
p-Chlorotouluene	162	f	7	f	4.40E+01	e	4.50E+00	e	1.70E-02	e
Dibromochloromethane	117	a	-22	a	4.00E+03	a	7.60E+01	a	9.90E-04	a
1,2-Dibromo-3-chloropropane	196	b	6	b	1.00E+03	b	8.00E-01	b	2.49E-04	b
Dibromodifluoromethane	23	b	-141	b			6.88E+02	b		
Dibutyl phthalate	335	a	-35	a	1.01E+01	a	1.40E-05	a(25)	6.30E-05	a
1,2-Dichlorobenzene	180	a	-17	a	1.00E+02	a	1.00E+00	a	1.90E-03	a
1,3-Dichlorobenzene	173	a	-25	a	1.11E+02	a	2.30E+00	a(25)	3.60E-03	a
1,1-Dichloroethane	56	a	-97	a	5.50E+03	a	1.82E+02	a	4.30E-03	a
1,2-Dichloroethane	83	a	-35	a	8.69E+03	a	6.40E+01	a	9.10E-04	a
1,1-Dichloroethene	37	a	-122	a	4.00E+02	a	4.95E+02	a	2.10E-04	a
trans-1,2-Dichloroethene	47	a	-50	a	6.00E+02	a	2.65E+02	a	3.84E-01	a
1,2,-Dichloropropane	96	a	-100	a	2.70E+03	a	4.20E+02	a	2.30E-03	a
cis-1,3-Dichloropropene	104	a	-84	a	2.70E+03	a	2.50E+01	a	1.30E-03	a
trans-1,3-Dichloropropene	112	a	-84	a	2.80E+03	a	2.50E+01	a	1.30E-03	a
Dichlorvos					1.00E+04	b	1.20E-02	b	5.00E-03	b
Diethyl phthalate	298	a	-40	a	9.28E+02	a	1.65E-03	a(25)	8.46E-07	a
Dimethyl phthalate	283	a	0	a	4.29E+03	a	1.65E-03	a(25)	4.20E-07	a

Table 1. Selected Physical Properties of DNAPL Chemicals (Continued)

DNAPL	Boiling Point (deg. C)	Ref.	Melting Point (deg. C)	Ref.	Aqueous Solubility (mg/L)	Ref.	Vapor Pressure (mm Hg)	Ref.	Henry's Law Constant	Ref.
Ethylene dibromide	131	b	10	b	4.32E+03	b	1.10E+01	b	7.06E-04	b
Hexachlorobutadiene	215	a	-21	a	2.55E+00	a	1.50E-01	a	2.60E-02	a
Hexachlorocyclopentadiene	237	a	-9	a	1.10E+00	a(22)	8.10E-02	a(25)	1.60E-02	a
Iodomethane	42.4	b	-66	b	1.40E+04	b	3.75E+02	b	5.48E-03	b
1-Iodopropane	102	b	-101	b	1.06E+03	b(23)	4.00E+01	b(24)	9.09E-03	b
Malathion			2.9	b	1.45E+02	b	1.25E-06	b	4.89E-09	b
Methylene Chloride	40	a	-95	a	2.00E+04	a	3.49E+02	a	2.00E-03	a
Nitrobenzene	211	a	6	a	1.90E+03	a	1.50E-01	a	2.45E-05	a
Nitroethane	115	b	-50	b	4.50E+04	b	1.56E+01	b	4.66E-05	b
1-Nitropropane	130	b	-108	b	1.40E+04	b	7.50E+00	b	8.68E-05	b
2-Nitrotoluene	222	b	-3	b	6.00E+02	b	1.50E-01	b	4.51E-05	b
3-Nitrotoluene	233	b	16	b	5.00E+02	b	1.50E-01	b	5.41E-05	b
Parathion	375	b	6	b	1.20E+01	b	4.00E-04	b	8.56E-08	b
PCB-1016	325				2.30E-01	a	4.00E-04	a(25)		
PCB-1221	275	a	1	a	5.90E-01	a(24)	6.70E-03	a(25)	3.24E-04	a
PCB-1232	290	a	-35	a	1.45E+00	a(25)	4.60E-03	a(25)	4.64E+00	a
PCB-1242	325	a	-19	a	2.00E-01	a	1.00E-03	a	5.60E-04	a
PCB-1248	340	a	-7	a	5.00E-02	a	4.94E-04	a(25)	3.50E-03	a
PCB-1254	365	a	10	a	5.00E+02	a	6.00E-05	a	2.70E-03	a
Pentachloroethane	159	b	-22	b	5.00E+02	b	3.40E+00	b	2.45E-03	b
1,1,2,2,- Tetrabromoethane	239	b	0	b	7.00E+02	b	1.00E-01	b	6.40E-05	b
1,1,2,2, Tetrachloroethane	146	a	-36	a	2.90E+03	a	5.00E+00	a	3.80E-04	a
Tetrachloroethene	121	a	-19	a	1.50E+02	a	1.40E+01	a	1.53E-02	a
Thiophene	84	b	-30	b	3.60E+03	b(18)	6.00E+01	b	2.93E-03	b
1,2,4-Trichlorobenzene	210	a	17	a	1.90E+01	a(22)	4.00E-01	a(25)	2.32E-03	a
1,1,1,-Trichloroethane	74	a	-30	a	1.36E+03	a	1.00E+02	a	1.80E-02	a
1,1,2 Trichloroethane	114	a	-37	a	4.50E+03	a	1.90E+01	a	7.40E-04	a
Trichloroethene	87	a	-73	a	1.10E+03	a	5.78E+01	a	9.10E-03	a
1,1,2-Trichlorofluoromethane	24	a	-111	a	1.10E+03	a	6.87E+02	a	1.10E-01	a
1,2,3 Trichloropropane	142	b	-15	b			2.00E+00	b	3.18E-04	b
1,1,2 Trichlorotrifluoroethane	48	b	-35	b	2.00E+02	b	2.84E+02	b	3.33E-01	b
Tri-o-cresyl phosphate	410	b	-25	b	3.00E-01	b				

Source: Cohen and Mercer 1993.

a: Montgomery, J.H. and L.M. Welkom. 1990. Groundwater Chemicals Desk Reference, Lewis Publishers, Chelsea, Michigan, 640 pp.

b Montgomery, J.H.. 1991. Groundwater Chemicals Desk Reference, Volume II, Lewis Publishers, Chelsea, Michigan, 944 pp.