APPENDIX D

CHEMICAL AND PHYSICAL PROPERTIES FOR CHEMICALS OF POTENTIAL CONCERN

(50 Pages)

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Volatile Organic Compounds								
Acetone	67-64-1	58.08	179.1	2.99E-01	6.04E+05	2.88E-05	1.87E-01	1.15E-05
Benzene	71-43-2	78.11	278.6	1.25E-01	1.78E+03	5.49E-03	1.17E-01	1.02E-05
Bromodichloromethane	75-27-4	163.83	218.1	7.68E-02	3.97E+03	3.17E-03	2.98E-02	1.06E-05
Bromoethene (Vinyl Bromide)	593-60-2	106.95[c]	133.65[c]	ND	ND	ND	8.30E-02	9.61E-07
Bromoform	75-25-2	252.77	280.6	7.82E-03	3.21E+03	6.16E-04	1.41E-02	1.03E-05
Bromomethane (Methyl Bromide)	74-83-9	94.95	179.44	2.16E+00	1.45E+04	1.41E-02	7.28E-02	1.21E-05
2-Butanone (MEK)	78-93-3	72.1	187.1	1.20E-01	2.40E+05	3.61E-05	1.35E-01	1.03E-05
1,3-Butadiene	106-99-0	54.09[d]	164.25[d]	ND	ND	ND	1.30E-01	1.50E-06
Carbon Disulfide	75-15-0	76.14	161.5	4.47E-01	2.67E+03	1.27E-02	1.04E-01	1.29E-05
Carbon Tetrachloride	56-23-5	153.84	250.1	1.48E-01	7.92E+02	2.87E-02	3.56E-02	9.77E-07
Chlorobenzene	108-90-7	112.56	228.1	1.59E-02	4.09E+02	4.38E-03	6.35E-02	9.49E-06
Chloroethane (Ethyl Chloride)	75-00-3	64.52	441.8	1.60E+02	5.74E+03	1.80E+00	1.27E-01	1.53E-06
Chloroform	67-66-3	119.39	209.6	2.69E-01	7.96E+03	4.03E-03	5.17E-02	1.09E-05
Chloromethane (Methyl Chloride)	74-87-3	50.49	176.1	5.68E+00	6.34E+03	4.52E-02	2.13E-01	1.39E-05
2-Chloropropane (Isopropyl chloride)	75-29-6	78.54[d]	156.15[d]	6.90E-01[e]	3.10E+03[e]	1.70E-02[e]	1.20E-01[e]	1.00E-04[e]
Dibromochloromethane	124-48-1	208.3	252.1	2.00E-02	3.44E+03	1.21E-03	1.96E-02	1.05E-05
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	187.88	282.1	1.00E-02	4.20E+03	4.47E-04	2.17E-02	1.19E-05
Dibromomethane (Methylene Bromide)	74-95-3	173.86	220.45	2.20E+00	1.45E+04	2.64E-02	6.10E-02	7.06E-06
cis-1,4-Dichloro-2-butene (2-Butene)	1476-11-5	125[c]	225.15[c]	ND	ND	ND	7.48E-02	8.66E-07
trans-1,4-Dichloro-2-butene	110-57-6	125[f]	275.15[f]	ND	ND	ND	7.48E-02	8.66E-07
Dichlorodifluoromethane (Freon 12)	75-71-8	120.92	115.1	6.40E+00	3.00E+02	2.58E+00	7.77E-02	9.00E-06
1,1-Dichloroethane	75-34-3	98.97	175.1	3.00E-01	5.16E+03	5.75E-03	7.42E-02	1.05E-05
1,2-Dichloroethane (EDC)	107-06-2	98.96	233.1	1.07E-01	8.31E+03	1.27E-03	7.19E-02	1.10E-05
1,1-Dichloroethene	75-35-4	96.95	150.6	7.88E-01	3.00E+03	2.55E-02	7.53E-02	1.09E-05
trans-1,2-Dichloroethene	156-60-5	96.95	223.7	4.63E-01	6.03E+03	7.44E-03	8.16E-02	9.75E-06
1,2-Dichloropropane	78-87-5	112.99	172.7	6.66E-02	2.68E+03	2.81E-03	6.21E-02	9.71E-06
cis-1,3-Dichloropropene	542-75-6	110.98	189.1	4.11E-02	1.55E+03	2.94E-03	6.26E-03	1.00E-05
trans-1,3-Dichloropropene	10061-02-6	110.97[f]	ND	ND	2.80E+03[f]	ND	8.10E-02	9.38E-07

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Volatile Organic Compounds								
Acetone	67-64-1	1	-0.22	0.95	0.01	0.07	0.04	3.61E+01
Benzene	71-43-2	137	2.14	62.00	0.62	4.65	2.48	3.89E+00
Bromodichloromethane	75-27-4	106	2.03	53.80	0.54	4.03	2.15	0.00E+00
Bromoethene (Vinyl Bromide)	593-60-2	ND	ND	ND	ND	ND	ND	ND
Bromoform	75-25-2	224	2.35	126.00	1.26	9.45	5.04	1.41E+00
Bromomethane (Methyl Bromide)	74-83-9	13	1.11	9.00	0.09	0.68	0.36	9.03E+00
2-Butanone (MEK)	78-93-3	2	0.28	2.34	0.02	0.18	0.09	3.61E+01
1,3-Butadiene	106-99-0	97.72[i]	1.99	50.49	0.50	3.79	2.02	ND
Carbon Disulfide	75-15-0	100	2.00	51.40	0.51	3.86	2.06	0.00E+00
Carbon Tetrachloride	56-23-5	521	2.72	152.00	1.52	11.40	6.08	7.03E-01
Chlorobenzene	108-90-7	616	2.79	224.00	2.24	16.80	8.96	1.69E+00
Chloroethane (Ethyl Chloride)	75-00-3	1260	3.10	371.00	3.71	27.80	14.80	6.72E+02
Chloroform	67-66-3	89	1.95	53.00	0.53	3.98	2.12	1.41E+00
Chloromethane (Methyl Chloride)	74-87-3	8	0.90	6.00	0.06	0.45	0.24	9.03E+00
2-Chloropropane (Isopropyl chloride)	75-29-6	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	124-48-1	150	2.18	70.50	0.71	5.29	2.82	1.41E+00
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	56	1.75	32.80	0.33	2.46	1.31	1.41E+00
Dibromomethane (Methylene Bromide)	74-95-3	42	1.62	26[g]	0.26	1.95	1.04	9.03E+00
cis-1,4-Dichloro-2-butene (2-Butene)	1476-11-5	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	110-57-6	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	75-71-8	144	2.16	6.85	0.69	5.14	2.74	1.41E+00
1,1-Dichloroethane	75-34-3	62	1.79	53.00	0.53	3.98	2.12	1.64E+00
1,2-Dichloroethane (EDC)	107-06-2	29	1.46	19.60	0.20	1.47	0.78	1.41E+00
1,1-Dichloroethene	75-35-4	132	2.12	65.00	0.65	4.88	2.60	1.41E+00
trans-1,2-Dichloroethene	156-60-5	96	1.98	38.00	0.38	2.85	1.52	1.41E+00
1,2-Dichloropropane	78-87-5	178	2.25	47.00	0.47	3.53	1.88	1.96E-01
cis-1,3-Dichloropropene	542-75-6	56	1.75	27.00	0.27	2.03	1.08	2.24E+01
trans-1,3-Dichloropropene	10061-02-6	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Volatile Organic Compounds									
Acetone	67-64-1	1.00	6.46E+00	6.80E+02	5.20E+01	5.20E+01	1.09E+01	1.13E-03	1.13E-03
Benzene	71-43-2	1.00	1.66E+01	2.67E+01	2.25E+00	2.25E+00	1.86E+01	1.92E-03	1.92E-03
Bromodichloromethane	75-27-4	1.00	1.47E+01	2.74E+01	2.61E+00	2.61E+00	2.46E+01	2.53E-03	2.53E-03
Bromoethene (Vinyl Bromide)	593-60-2	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	75-25-2	1.00	2.13E+01	1.69E+01	1.70E+00	1.70E+00	2.80E+02	2.89E-02	2.89E-02
Bromomethane (Methyl Bromide)	74-83-9	1.00	7.98E+00	8.87E+01	8.79E+00	8.79E+00	5.91E-01	6.07E-05	6.07E-05
2-Butanone (MEK)	78-93-3	1.00	6.69E+00	2.86E+02	2.67E+01	2.67E+01	2.99E+01	3.08E-03	3.08E-03
1,3-Butadiene	106-99-0	ND	1.42E+01	2.82E+01	2.74E+00	2.74E+00	ND	ND	ND
Carbon Disulfide	75-15-0	1.00	1.44E+01	2.79E+01	2.70E+00	2.70E+00	5.76E+00	5.92E-04	5.92E-04
Carbon Tetrachloride	56-23-5	1.00	3.50E+01	2.30E+01	1.04E+00	1.04E+00	1.48E+01	1.52E-03	1.52E-03
Chlorobenzene	108-90-7	1.00	3.90E+01	1.74E+01	9.45E-01	9.45E-01	1.16E+02	1.19E-02	1.19E-02
Chloroethane (Ethyl Chloride)	75-00-3	1.00	6.30E+01	1.70E+01	6.25E-01	6.25E-01	6.04E-01	6.05E-05	6.05E-05
Chloroform	67-66-3	1.00	1.37E+01	2.58E+01	2.89E+00	2.89E+00	1.60E+01	1.65E-03	1.65E-03
Chloromethane (Methyl Chloride)	74-87-3	1.00	7.46E+00	1.24E+02	1.16E+01	1.16E+01	1.10E-01	1.13E-05	1.13E-05
2-Chloropropane (Isopropyl chloride)	75-29-6	1.00[e]	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	124-48-1	1.00	1.73E+01	2.45E+01	2.14E+00	2.14E+00	9.32E+01	9.59E-03	9.59E-03
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	1.00	1.15E+01	3.50E+01	3.77E+00	3.77E+00	8.86E+01	9.13E-03	9.13E-03
Dibromomethane (Methylene Bromide)	74-95-3	1.00	1.04E+01	4.01E+01	4.48E+00	4.48E+00	1.09E+00	1.13E-04	1.13E-04
cis-1,4-Dichloro-2-butene (2-Butene)	1476-11-5	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	110-57-6	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	75-71-8	1.00	1.70E+01	2.48E+01	2.19E+00	2.19E+00	4.18E-02	4.33E-06	4.33E-06
1,1-Dichloroethane	75-34-3	1.00	1.19E+01	2.24E+01	3.56E+00	3.56E+00	7.65E+00	7.88E-04	7.88E-04
1,2-Dichloroethane (EDC)	107-06-2	1.00	9.41E+00	4.81E+01	5.53E+00	5.53E+00	1.54E+01	1.58E-03	1.58E-03
1,1-Dichloroethene	75-35-4	1.00	1.63E+01	2.50E+01	2.30E+00	2.30E+00	3.86E+00	3.98E-04	3.98E-04
trans-1,2-Dichloroethene	156-60-5	1.00	1.41E+01	3.71E+01	2.77E+00	2.77E+00	9.42E+00	9.70E-04	9.70E-04
1,2-Dichloropropane	78-87-5	1.00	1.89E+01	4.01E+01	1.94E+00	1.94E+00	4.81E+01	4.96E-03	4.96E-03
cis-1,3-Dichloropropene	542-75-6	1.00	1.15E+01	4.25E+01	3.78E+00	3.48E+00	1.34E+01	1.38E-03	1.38E-03
trans-1,3-Dichloropropene	10061-02-6	ND	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Volatile Organic Compounds									
Acetone	67-64-1	4.77E-09	1.51E-08	1.82E-08	4.77E-06	1.19E-08	0.103[g]	ND	ND
Benzene	71-43-2	1.09E-06	3.44E-06	4.17E-06	1.09E-03	2.72E-06	2.48E+01	ND	ND
Bromodichloromethane	75-27-4	8.42E-07	2.66E-06	3.22E-06	8.42E-04	2.10E-06	2.04E+01	ND	ND
Bromoethene (Vinyl Bromide)	593-60-2	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	75-25-2	1.78E-06	5.63E-06	6.81E-06	1.78E-03	4.44E-06	3.60E+01	ND	ND
Bromomethane (Methyl Bromide)	74-83-9	1.03E-07	3.27E-07	3.95E-07	1.03E-04	2.58E-07	4.14E+00	ND	ND
2-Butanone (MEK)	78-93-3	1.51E-08	4.79E-08	5.79E-08	1.51E-05	3.78E-08	9.61E-01	ND	ND
1,3-Butadiene	106-99-0	7.76E-07	2.45E-06	1.61E-05	7.76E-04	1.96E-06	1.92E+01	ND	ND
Carbon Disulfide	75-15-0	7.94E-07	2.51E-06	3.04E-06	7.94E-04	1.98E-06	1.95E+01	ND	ND
Carbon Tetrachloride	56-23-5	4.14E-06	1.30E-05	1.58E-05	4.14E-03	1.03E-05	3.00E+01	ND	ND
Chlorobenzene	108-90-7	4.89E-06	1.55E-05	1.87E-05	4.89E-03	1.22E-05	7.76E+01	ND	ND
Chloroethane (Ethyl Chloride)	75-00-3	1.00E-05	3.16E-05	3.83E-05	1.00E-02	2.50E-05	1.34E+02	ND	ND
Chloroform	67-66-3	7.07E-07	2.23E-06	2.71E-06	7.07E-04	1.76E-06	3.59E+00	ND	ND
Chloromethane (Methyl Chloride)	74-87-3	6.36E-08	2.01E-07	2.43E-07	6.35E-05	1.59E-07	2.86E+00	ND	ND
2-Chloropropane (Isopropyl chloride)	75-29-6	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	124-48-1	1.19E-06	3.77E-06	4.56E-06	1.19E-03	2.97E-06	2.65E+01	ND	ND
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	4.47E-07	1.41E-06	1.71E-06	4.47E-04	1.12E-06	1.26E+01	ND	ND
Dibromomethane (Methylene Bromide)	74-95-3	3.31E-07	1.05E-06	1.27E-06	3.31E-04	8.27E-07	1.00E+01	ND	ND
cis-1,4-Dichloro-2-butene (2-Butene)	1476-11-5	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	110-57-6	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	75-71-8	1.15E-06	3.63E-06	4.40E-06	1.15E-03	2.87E-06	2.58E+01	ND	ND
1,1-Dichloroethane	75-34-3	4.93E-07	1.56E-06	1.89E-06	4.92E-04	1.23E-06	1.36E+01	ND	ND
1,2-Dichloroethane (EDC)	107-06-2	2.30E-07	7.28E-07	8.82E-07	2.30E-04	5.75E-07	7.61E+00	ND	ND
1,1-Dichloroethene	75-35-4	1.05E-06	3.32E-06	4.01E-06	1.05E-03	2.62E-06	2.41E+01	ND	ND
trans-1,2-Dichloroethene	156-60-5	7.63E-07	2.41E-06	2.92E-06	7.63E-04	1.90E-06	1.89E+01	ND	ND
1,2-Dichloropropane	78-87-5	1.41E-06	4.47E-06	5.41E-06	1.41E-03	3.53E-06	3.02E+01	ND	ND
cis-1,3-Dichloropropene	542-75-6	4.45E-07	1.41E-06	1.70E-06	4.45E-04	1.11E-06	1.25E+01	ND	ND
trans-1,3-Dichloropropene	10061-02-6	ND	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Volatile Organic Compounds							
Acetone	67-64-1	ND	ND	ND	1.00E-01	ND	3.50E-01
Benzene	71-43-2	ND	2.90E-02	2.90E-02	1.70E-02	8.30E-06	6.00E-02
Bromodichloromethane	75-27-4	ND	6.20E-02	6.20E-02	2.00E-02	1.80E-05	7.00E-02
Bromoethene (Vinyl Bromide)	593-60-2	ND	1.1E-01[m]	1.1E-01[m]	8.57E-04	3.2E-05[m]	3.0E-03[n]
Bromoform	75-25-2	ND	7.90E-03	3.90E-03	2.00E-02	1.10E-06	7.00E-02
Bromomethane (Methyl Bromide)	74-83-9	ND	ND	ND	1.40E-03	ND	5.00E-03
2-Butanone (MEK)	78-93-3	ND	ND	ND	6.00E-01	ND	1.00E+00
1,3-Butadiene	106-99-0	ND	9.80E-01	1.8E+00[m]	ND	2.8E-04[n]	ND
Carbon Disulfide	75-15-0	ND	ND	ND	1.00E-01	ND	7.00E-01
Carbon Tetrachloride	56-23-5	ND	1.30E-01	5.30E-02	7.00E-04	1.50E-05	2.50E-03
Chlorobenzene	108-90-7	ND	ND	ND	2.00E-02	ND	5.95E-02[g]
Chloroethane (Ethyl Chloride)	75-00-3	ND	ND	ND	4.00E-01	ND	1.00E+01
Chloroform	67-66-3	ND	6.10E-03	8.10E-02	1.00E-02	2.30E-05	3.0E-04[g]
Chloromethane (Methyl Chloride)	74-87-3	ND	1.30E-02	6.30E-03	8.60E-02	1.80E-06	3.01E-01
2-Chloropropane (Isopropyl chloride)	75-29-6	ND	ND	ND	2.86E-02	ND	1.00E-01[m]
Dibromochloromethane	124-48-1	ND	8.40E-02	8.40E-02	2.00E-02	2.40E-05	7.00E-02
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ND	8.50E+01	7.70E-01	5.70E-05	2.20E-04	2.00E-04
Dibromomethane (Methylene Bromide)	74-95-3	ND	ND	ND	1.00E-02	ND	3.50E-02
cis-1,4-Dichloro-2-butene (2-Butene)	1476-11-5	ND	9.3E+00[m]	9.3E+00[m]	ND	2.6E-03[m]	ND
trans-1,4-Dichloro-2-butene	110-57-6	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	75-71-8	ND	ND	ND	2.00E-01	ND	2.00E-01
1,1-Dichloroethane	75-34-3	ND	9.10E-02	9.10E-02	1.00E-01	2.60E-05	5.00E-01
1,2-Dichloroethane (EDC)	107-06-2	ND	9.10E-02	9.10E-02	2.90E-03	2.60E-05	1.00E-02
1,1-Dichloroethene	75-35-4	ND	6.00E-01	1.80E-01	9.00E-03	5.00E-05	3.20E-02
trans-1,2-Dichloroethene	156-60-5	ND	ND	ND	2.00E-02	ND	7.00E-02
1,2-Dichloropropane	78-87-5	ND	6.80E-02	6.80E-02	1.10E-03	1.90E-05	4.00E-03
cis-1,3-Dichloropropene	542-75-6	ND	5.0E-02[n]	1.30E-01	3.0E-02[n]	4.0E-06[n]	2.00E-02
trans-1,3-Dichloropropene	10061-02-6	ND	ND	ND	3.0E-04[n]	ND	2.0E-02[n]

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Volatile Oragnic Compounds (Continued)								
Ethylbenzene	100-41-4	106.16	178.1	1.26E-02	1.73E+02	7.73E-03	7.65E-02	8.49E-06
n-Hexane	110-54-3	86.17[d]	173.15[d]	2.00E-01[e]	1.20E+01[e]	1.40E-02[e]	2.00E-01[e]	7.80E-06[e]
2-Hexanone (Methyl butyl ketone)	591-78-6	100.16[d]	216.15[f]	ND	3.50E+04[f]	0.00175[f]	8.68E-02	1.00E-06
Iodomethane (Methyl iodide)	74-88-4	141.95[d]	206.65[d]	ND	1.40E+04[f]	5.48E-03[f]	6.87E-02	7.95E-07
Methylene Chloride	75-09-2	84.94	178.1	4.87E-01	1.74E+04	2.38E-03	8.69E-02	1.25E-05
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	108-10-1	100.16	188.4	2.50E-02	2.00E+04	1.25E-04	8.59E-02	8.36E-06
2-Propanol (Isopropanol)	67-63-0	60.09[d]	184.65[d]	ND	ND	ND	1.22E-01	1.41E-06
Styrene	100-42-5	104.14	242.5	8.21E-03	2.57E+02	3.33E-03	7.73E-02	8.77E-06
1,1,1,2-Tetrachloroethane	630-20-6	167.85	230.1	1.60E-02	1.10E+03	2.44E-03	3.15E-02	9.30E-06
1,1,2,2-Tetrachloroethane	79-34-5	167.86	229.1	6.80E-03	3.07E+03	3.72E-04	3.16E-02	9.26E-06
Tetrachloroethene (PCE)	127-18-4	165.85	251.1	2.42E-02	2.32E+02	1.73E-02	7.20E-02	8.20E-06
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	187.38[c]	236.75[c]	4.4E-01[e]	1.70E+02[e]	4.80E-01[e]	7.80E-02[e]	8.20E-05[e]
Toluene	108-88-3	92.13	178.1	3.71E-02	5.58E+02	6.13E-03	9.72E-02	9.23E-06
1,1,1-Trichloroethane (TCA)	71-55-6	133.42	242.7	1.63E-01	1.17E+03	1.86E-02	4.66E-02[g]	9.56E-06
1,1,2-Trichloroethane	79-00-5	133.42	238.1	3.31E-02	4.40E+03	1.00E-03	4.51E-02	1.00E-05
Trichloroethene (TCE)	79-01-6	131.4	188.3	9.48E-02	1.18E+03	1.06E-02	4.65E-02	9.94E-06
1,2,3-Trichloropropane	96-18-4	147.43	258.4	4.90E-03	1.90E+03	3.80E-04	3.99E-02	9.24E-06
Trichlorofluoromethane	75-69-4	137.38	162.1	1.10E+00	1.10E+03	1.37E-01	4.27E-02	1.00E-05
Vinyl acetate	108-05-4	86.09	180.1	1.43E-01	2.24E+04	5.50E-04	9.94E-02	1.00E-05
Vinyl Chloride	75-01-4	62.5	119.3	3.68E+00	7.30E+02	3.15E-01	1.58E-01	1.19E-05
m-Xylene	108-38-3	106.16	225.7	1.06E-02[g]	1.86E+02[g]	6.05e-03[g]	7.69E-02	8.49E-06
p-Xylene	106-42-3	106.16	286.1	1.06E-02[g]	1.86E+02[g]	6.05e-03[g]	7.61E+02	8.50E-05
o-Xylene	95-47-6	106.16	248.1	1.06E-02[g]	1.86E+02[g]	6.05e-03[g]	7.69E-02	8.44E-06

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Volatile Oragnic Compounds (Continued)								
Ethylbenzene	100-41-4	1330	3.12	204.00	2.04	15.30	8.16	2.53E+01
n-Hexane	110-54-3	7943.3[i]	3.90	8600[e]	86.00	645.00	344.00	ND
2-Hexanone (Methyl butyl ketone)	591-78-6	23.988[i]	1.38	16.88	0.17	1.27	0.68	ND
Iodomethane (Methyl iodide)	74-88-4	48.98[f]	1.69	29.46	0.29	2.21	1.18	ND
Methylene Chloride	75-09-2	18	1.26	10.00	0.10	0.75	0.40	9.03E+00
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	108-10-1	16	1.19	12.00	0.12	0.90	0.48	3.61E+01
2-Propanol (Isopropanol)	67-63-0	ND	ND	ND	ND	ND	ND	ND
Styrene	100-42-5	849	2.93	912.00	9.12	68.40	36.50	9.03E+00
1,1,1,2-Tetrachloroethane	630-20-6	427	2.63	159.00	1.59	12.00	6.37	5.75E+00
1,1,2,2-Tetrachloroethane	79-34-5	44000	4.64	79.00	79.00	5.93	3.16	5.75E+00
Tetrachloroethene (PCE)	127-18-4	351	2.55	265.00	2.65	19.90	10.60	7.03E-01
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	1445.4[i]	3.16	1300[e]	13.00	97.50	52.00	ND
Toluene	108-88-3	465	2.67	140.00	1.40	10.50	5.60	1.15E+01
1,1,1-Trichloroethane (TCA)	71-55-6	264	2.42	135.00	1.35	10.10	5.40	9.27E-01
1,1,2-Trichloroethane	79-00-5	125	2.10	75.00	0.75	5.63	3.00	6.93E-01
Trichloroethene (TCE)	79-01-6	271	2.43	94.00	0.94	7.05	3.76	7.03E-01
1,2,3-Trichloropropane	96-18-4	178	2.25	80.50	0.81	6.04	3.22	7.03E-01
Trichlorofluoromethane	75-69-4	340	2.53	134.00	1.34	10.00	5.34	7.03E-01
Vinyl acetate	108-05-4	5	0.70	4.97	0.05	0.37	0.20	ND
Vinyl Chloride	75-01-4	14	1.15	11.1[g]	0.11	0.83	0.44	1.41E+00
m-Xylene	108-38-3	1590	3.20	196.00	1.96	14.70	7.84	9.03E+00
p-Xylene	106-42-3	1480	3.17	311.00	3.11	23.30	12.40	9.03E+00
o-Xylene	95-47-6	1350	3.13	241.00	2.41	18.10	9.64	9.03E+00

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Volatile Oragnic Compounds (Continued)									
Ethylbenzene	100-41-4	1.00	6.52E+01	3.20E+01	6.07E-01	6.07E-01	1.49E+02	1.53E-02	1.53E-02
n-Hexane	110-54-3	1.00[e]	3.70E+01[e]	ND	1.9E-01[e]	1.9E-01[e]	ND	1.8E-01[e]	1.8E-01[e]
2-Hexanone (Methyl butyl ketone)	591-78-6	ND	8.99E+00	5.33E+01	6.17E+00	6.17E+00	ND	ND	ND
Iodomethane (Methyl iodide)	74-88-4	ND	1.10E+01	3.72E+01	4.08E+00	4.08E+00	ND	ND	ND
Methylene Chloride	75-09-2	1.00	8.46E+00	8.46E+01	7.29E+00	7.29E+00	4.95E+00	5.11E-04	5.11E-04
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	108-10-1	1.00	8.22E+00	6.85E+01	7.95E+00	7.95E+00	8.04E+01	8.26E-03	8.26E-03
2-Propanol (Isopropanol)	67-63-0	ND	ND	ND	ND	ND	ND	0.00E+00[l]	0.00E+00[l]
Styrene	100-42-5	1.00	4.81E+01	5.28E+00	7.85E-01	7.85E-01	2.14E+02	2.21E-02	2.21E-02
1,1,1,2-Tetrachloroethane	630-20-6	1.00	3.09E+01	1.94E+01	1.17E+00	1.17E+00	1.41E+02	1.45E-02	1.45E-02
1,1,2,2-Tetrachloroethane	79-34-5	1.00	8.80E+02	1.11E+03	8.02E-02	8.02E-02	1.29E+05	1.33E+01	1.33E+01
Tetrachloroethene (PCE)	127-18-4	1.00	2.75E+01	1.04E+01[g]	1.31E+00	1.31E+00	1.61E+01	1.66E-03	1.66E-03
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	1.00[e]	9.00E+00[e]	ND	5.80E-01[e]	5.80E-01[e]	ND	0.00E+00[l]	0.00E+00[l]
Toluene	108-88-3	1.00	3.26E+01	2.33E+01	1.11E+00	1.11E+00	6.14E+01	6.33E-03	6.33E-03
1,1,1-Trichloroethane (TCA)	71-55-6	1.00	2.33E+01	1.73E+01	1.54E+00	1.54E+00	1.11E+01	1.14E-03	1.14E-03
1,1,2-Trichloroethane	79-00-5	1.00	1.59E+01	2.12E+01	2.38E+00	2.38E+00	9.28E+01	9.53E-03	9.53E-03
Trichloroethene (TCE)	79-01-6	1.00	2.37E+01	2.12E+01	1.52E+00	1.52E+00	2.00E+01	2.07E-03	2.07E-03
1,2,3-Trichloropropane	96-18-4	1.00	1.89E+01	2.34E+01	1.94E+00	1.94E+00	3.56E+02	3.66E-02	3.66E-02
Trichlorofluoromethane	75-69-4	1.00	2.70E+01	2.02E+00	1.33E+00	1.33E+00	1.97E+00	2.02E-04	2.02E-04
Vinyl acetate	108-05-4	1.00	7.11E+00	1.43E+02	1.53E+01	1.53E+01	5.48E+00	5.65E-04	5.65E-04
Vinyl Chloride	75-01-4	1.00	8.08E+00	7.29E+01	8.42E+00	8.42E+00	2.87E-02	2.95E-06	2.95E-06
m-Xylene	108-38-3	0.999957	7.41E+01	3.78E+01	5.47E-01	5.47E-01	ND	0.0237[g]	0.0237[g]
p-Xylene	106-42-3	0.999957	7.05E+01	2.27E+01	5.70E-01	5.70E-01	ND	0.022[g]	0.022[g]
o-Xylene	95-47-6	0.999957	6.61E+01	2.74E+01	6.01E-01	6.01E-01	ND	0.0199[g]	0.0199[g]

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Volatile Oragnic Compounds (Continued)									
Ethylbenzene	100-41-4	1.05E-05	3.33E-05	4.03E-05	1.05E-02	2.63E-05	1.39E+02	ND	ND
n-Hexane	110-54-3	7.90E-05[e]	2.50E-04[e]	3.0E-04[e]	6.31E-02	7.50E-05	ND	ND	ND
2-Hexanone (Methyl butyl ketone)	591-78-6	1.91E-07	6.03E-07	3.96E-06	1.91E-04	4.82E-07	6.59E+00	ND	ND
Iodomethane (Methyl iodide)	74-88-4	3.89E-07	1.23E-06	8.08E-06	3.89E-04	9.84E-07	1.13E+01	ND	ND
Methylene Chloride	75-09-2	1.43E-07	4.52E-07	5.47E-07	1.43E-04	3.57E-07	5.30E+00	ND	ND
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	108-10-1	1.23E-07	3.89E-07	4.71E-07	1.23E-04	3.07E-07	4.73E+00	ND	ND
2-Propanol (Isopropanol)	67-63-0	0.00E+00[1]	0.00E+00[1]	0.00E+00[1]	0.00E+00[1]	0.00E+00[1]	ND	ND	ND
Styrene	100-42-5	6.74E-06	2.13E-05	2.58E-05	6.74E-03	1.68E-05	9.91E+01	ND	ND
1,1,1,2-Tetrachloroethane	630-20-6	3.39E-06	1.07E-05	1.30E-05	3.39E-03	8.46E-06	5.87E+01	ND	ND
1,1,2,2-Tetrachloroethane	79-34-5	3.50E-04	1.11E-03	1.34E-03	3.50E-01	8.73E-04	ND	4.33E+03	ND
Tetrachloroethene (PCE)	127-18-4	2.79E-06	8.82E-06	1.07E-05	2.79E-03	6.96E-06	5.06E+01	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	1.12E-05[1]	3.55E-05[1]	4.30E-05[1]	1.12E-02[1]	2.84E-05[1]	1.48E+02	ND	ND
Toluene	108-88-3	3.69E-06	1.17E-05	1.41E-05	3.69E-03	9.22E-06	6.27E+01	ND	ND
1,1,1-Trichloroethane (TCA)	71-55-6	2.10E-06	6.63E-06	8.03E-06	2.10E-03	5.24E-06	4.08E+01	ND	ND
1,1,2-Trichloroethane	79-00-5	9.93E-07	3.14E-06	3.80E-06	9.93E-04	2.48E-06	2.31E+01	ND	ND
Trichloroethene (TCE)	79-01-6	2.15E-06	6.81E-06	8.24E-06	2.15E-03	5.37E-06	4.16E+01	ND	ND
1,2,3-Trichloropropane	96-18-4	1.41E-06	4.47E-06	5.41E-06	1.41E-03	3.53E-06	3.02E+01	ND	ND
Trichlorofluoromethane	75-69-4	2.70E-06	8.54E-06	1.03E-05	2.70E-03	6.74E-06	4.94E+01	ND	ND
Vinyl acetate	108-05-4	3.97E-07	1.26E-07	1.52E-07	3.97E-06	9.92E-08	2.00E+00	ND	ND
Vinyl Chloride	75-01-4	1.11E-07	3.52E-07	4.26E-07	1.11E-04	2.78E-07	1.81[g]	ND	ND
m-Xylene	108-38-3	1.26E-05	3.99E-05	4.83E-05	1.26E-02	3.15E-05	1.60E+02	ND	ND
p-Xylene	106-42-3	1.18E-05	3.72E-05	4.50E-05	1.18E-02	2.93E-05	1.51E+02	ND	ND
o-Xylene	95-47-6	1.07E-05	3.39E-05	4.10E-05	1.07E-02	2.68E-05	1.41E+02	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Volatile Oragnic Compounds (Continued)							
Ethylbenzene	100-41-4	ND	ND	ND	1.00E-01	ND	1.00E+00
n-Hexane	110-54-3	ND	ND	ND	6.00E-02[m]	ND	2.00E-01[n]
2-Hexanone (Methyl butyl ketone)	591-78-6	ND	ND	ND	ND	ND	ND
Iodomethane (Methyl iodide)	74-88-4	ND	ND	ND	ND	ND	ND
Methylene Chloride	75-09-2	ND	7.50E-03	1.63E-03	6.00E-02	4.70E-07	3.00E+00
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	108-10-1	ND	8.00E-01	8.00E-01	8.00E-02	2.30E-04[g]	8.00E-02
2-Propanol (Isopropanol)	67-63-0	ND	ND	ND	ND	ND	ND
Styrene	100-42-5	ND	ND	ND	2.00E-01	ND	1.00E+00
1,1,1,2-Tetrachloroethane	630-20-6	ND	2.62E-02	2.62E-02	3.00E-02	7.40E-06	1.10E-01
1,1,2,2-Tetrachloroethane	79-34-5	ND	2.00E-01	2.00E-01	ND	5.80E-05	ND
Tetrachloroethene (PCE)	127-18-4	ND	5.20E-02	2.00E-03	1.00E-02	5.80E-07	4.00E-01[g]
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	ND	ND	ND	3.00E+01[n]	ND	3.00E+01[m]
Toluene	108-88-3	ND	ND	ND	2.00E-01	ND	4.00E-01
1,1,1-Trichloroethane (TCA)	71-55-6	ND	ND	ND	3.50E-02	ND	1.23E-01
1,1,2-Trichloroethane	79-00-5	ND	5.70E-02	5.70E-02	4.00E-03	1.60E-05	1.40E-02
Trichloroethene (TCE)	79-01-6	ND	1.10E-02	6.00E-03[g]	6.00E-03	1.70E-06	2.10E-02
1,2,3-Trichloropropane	96-18-4	ND	7.00E+00	7.00E+00	6.00E-03	2.00E-03	2.10E-02
Trichlorofluoromethane	75-69-4	ND	ND	ND	3.00E-01	ND	7.00E-01
Vinyl acetate	108-05-4	ND	ND	ND	1.00E+00	ND	2.00E-01
Vinyl Chloride	75-01-4	ND	1.50E+00[n]	3.00E-01	3.0E-03[n]	8.8E-06[n]	1.0E-01[n]
m-Xylene	108-38-3	ND	ND	ND	2.00E+00	ND	7.00E+00
p-Xylene	106-42-3	ND	ND	ND	2.00E+00	ND	7.00E+00
o-Xylene	95-47-6	ND	ND	ND	2.00E+00	ND	7.00E+00

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Semi-volatile Organic Compounds								
Acenaphthene	83-32-9	154.21	368.1	4.93E-06	4.13E+00[g]	1.84E-04[g]	4.21E-02	7.19E-06
Acenapthylene	208-96-8	152.2[f]	366[f]	ND	3.93E+00[f]	1.14E-04[f]	6.55E-02	7.59E-07
Acetophenone	98-86-2	120.5	293.6	5.20E-04	6.10E+03	1.03E-05	6.00E-02	8.73E-06
2-Acetylaminofluorene	53-96-3	223.26[d]	467.15[d]	ND	ND	ND	5.07E-02	5.87E-07
4-Aminobiphenyl (p-Biphenylamine)	92-67-1	169.22[d]	326.15[d]	ND	ND	3.89E-10[f]	6.11E-02	7.07E-07
3-Amino-9-ethycarbazole	132-32-1	210.3	ND	ND	ND	ND	ND	ND
Aniline	62-53-3	93.12	266.8	8.80E-04	3.60E+04	2.28E-06	8.56E-01	1.01E-05
Anthracene	120-12-7	178.22	491.1	3.35E-08	5.37E-02	1.11E-04	3.24E-02	7.74E-06
Aramite	140-57-8	334.87[d]	241.45[d]	ND	ND	ND	3.86E-02	4.48E-07
Benzidine	92-87-5	184.23[d]	401.15[d]	ND	ND	ND	5.77E-02	6.68E-07
Benzoic acid	65-85-0	122.12	395.5	8.57E-06	3.13E+03[g]	3.34E-07[g]	5.36E-02	8.80E-06
Benzo (a) anthracene	50-32-8	252.3	452	6.43E-12	1.93E-03	8.36E-07	2.18E-02	5.85E-06
Benzo (b) fluoranthrene	205-99-2	252.32	441	1.06E-10	4.33E-03	6.18E-06	2.28E-02	5.49E-06
Benzo (j) fluoranthrene	205-82-3	253.32	ND	ND	ND	ND	ND	ND
Benzo (k) fluoranthrene	207-08-9	252.32	490	1.32E-12	8.00E-04	4.15E-07	2.28E-02	5.49E-06
Benzo (g,h,i) perylene	191-24-2	276.3[f]	495.15[f]	ND	2.60E-04[f]	1.40E-07[f]	4.40E-02	5.09E-07
Benzo (a) pyrene	50-32-8	252.3	452	6.43E-12	1.94E-03	8.36E-07	2.18E-02	5.85E-06
Benzo (e) pyrene	192-97-2	252.3[d]	452.15[d]	ND	ND	ND	4.67E-02	5.41E-07
Benzyl alcohol	100-51-6	108.13	288.29	1.40E-04	4.00E+04	3.78E-07	6.89E-02	9.38E-06
Benzaldehyde	100-52-7	106.12	329.6	1.30E-03	3.30E+03	4.18E-05	7.07E-02	9.48E-06
Benzenethiol (Phenylmercaptan or Thiophenol)	108-98-5	110.17[d]	258.15[c]	ND	ND	ND	8.14E-02	9.42E-07
1,1'-Biphenyl (Phenylbenzene or Diphenyl)	92-52-4	154.2[d]	344.15[d]	1.30E-05[e]	6.00E+00[e]	3.00E-04[e]	4.00E-02[e]	8.20E-06[e]
4-Bromophenyl phenyl ether	101-55-3	249.2	291.8	1.97E-06	ND	ND	1.98E-02	6.83E-06
Butyl benzyl phthalate	85-68-7	312.39	238	1.58E-08	2.58E+00	1.91E-06	1.62E-02	5.17E-06
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7	240.22[d]	315.15[d]	ND	5.00E+01[f]	5.04E-04[f]	4.83E-02	5.59E-07
4-Chloroaniline	106-47-8	127.57	345.6	3.09E-05	3.36E+03	1.17E-06	4.80E-02	1.02E-05
bis(2-Chloroethoxy)-methane	111-91-1	173.04[f]	240.35[f]	ND	8.10E+04[f]	3.78E-07[f]	6.01E-02	6.96E-07
bis(2-Chloroethyl) ether	111-44-4	143.02	223.1	1.76E-03	1.18E+04	2.13E-05	4.40E-02	8.70E-06

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Semi-volatile Organic Compounds								
Acenaphthene	83-32-9	9220	3.96	4900.00	49.00	367.00	196.00	2.48E+00
Acenapthylene	208-96-8	11748.98[f]	4.07	7143.32	71.43	535.75	285.73	ND
Acetophenone	98-86-2	44	1.64	26.90	0.27	2.02	1.08	0.00E+00
2-Acetylaminofluorene	53-96-3	1905[f]	3.28	512.06	5.12	38.40	20.48	ND
4-Aminobiphenyl (p-Biphenylamine)	92-67-1	602.56[f]	2.78	208.64	2.09	15.65	8.35	ND
3-Amino-9-ethycarbazole	132-32-1	ND	ND	ND	ND	ND	ND	ND
Aniline	62-53-3	10	0.98	8.23	0.08	0.06	0.33	3.20E+01
Anthracene	120-12-7	29500	4.47	23500.00	235.00	1760.00	940.00	5.50E-01
Aramite	140-57-8	ND	ND	ND	ND	ND	ND	ND
Benzidine	92-87-5	45.71[i]	1.66	27.91	0.28	2.09	1.12	ND
Benzoic acid	65-85-0	76	1.88	(j)	0.01	0.04	0.02	1.26E+02
Benzo (a) anthracene	50-32-8	1350000	6.13	969000.00	9690.00	72700.00	38700.00	4.77E-01
Benzo (b) fluoranthrene	205-99-2	1590000	6.20	836000.00	8360.00	62700.00	33400.00	4.15E-01
Benzo (j) fluoranthrene	205-82-3	ND	ND	ND	ND	ND	ND	ND
Benzo (k) fluoranthrene	207-08-9	1560000	6.19	832000[g]	8320.00	62400.00	33300.00	1.18E-01
Benzo (g,h,i) perylene	191-24-2	5011872[i]	6.70	819088.56	8190.89	61431.64	ND	ND
Benzo (a) pyrene	50-32-8	1350000	6.13	969000.00	9690.00	72700.00	38700.00	4.77E-01
Benzo (e) pyrene	192-97-2	ND	ND	ND	ND	ND	ND	ND
Benzyl alcohol	100-51-6	13	1.10	10.20	0.10	0.77	0.41	0.00E+00
Benzaldehyde	100-52-7	30	1.48	0.20	0.20	1.51	0.80	0.00E+00
Benzenethiol (Phenylmercaptan or Thiophenol)	108-98-5	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl (Phenylbenzene or Diphenyl)	92-52-4	10232.9[i]	4.01	7800[e]	78.00	585.00	312.00	ND
4-Bromophenyl phenyl ether	101-55-3	110000	5.04	12100[g]	121[g]	909[g]	485[g]	0.00E+00
Butyl benzyl phthalate	85-68-7	25900	4.41	13700.00	137.00	1030.00	550.00	3.61E+01
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7	4898[f]	3.69	1069.58	10.70	80.22	42.78	ND
4-Chloroaniline	106-47-8	74	1.87	41.00	0.41	3.05	1.63	0.00E+00
bis(2-Chloroethoxy)-methane	111-91-1	18.2[f]	1.26	13.61	0.14	1.02	0.54	ND
bis(2-Chloroethyl) ether	111-44-4	20	1.30	76.00	0.76	5.70	3.04	1.41E+00

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Semi-volatile Organic Compounds									
Acenaphthene	83-32-9	0.999975	2.69E+02	5.48E+00	1.98E-01	1.98E-01	ND	5.07[g]	5.07[g]
Acenapthylene	208-96-8	ND	3.23E+02	4.51E+00	1.72E-01	1.72E-01	ND	ND	ND
Acetophenone	98-86-2	0.999999	1.06E+01	3.92E+01	4.37E+00	4.37E+00	2.94E+03	3.04E-01	3.04E-01
2-Acetylaminofluorene	53-96-3	ND	8.42E+01	1.64E+01	4.92E-01	4.92E-01	ND	ND	ND
4-Aminobiphenyl (p-Biphenylamine)	92-67-1	ND	3.84E+01	1.84E+01	9.58E-01	9.58E-01	ND	ND	ND
3-Amino-9-ethycarbazole	132-32-1	ND	ND	ND	ND	ND	ND	ND	ND
Aniline	62-53-3	1.00	7.63E+00	9.27E+01	1.05E+01	1.05E+01	2.63E+03	2.72E-01	2.72E-01
Anthracene	120-12-7	0.999781	6.49E+02	2.76E+00	1.01E-01	1.01E-01	2.81E+05	2.90E+01	2.90E+01
Aramite	140-57-8	ND	ND	ND	ND	ND	ND	ND	ND
Benzidine	92-87-5	ND	1.07E+01	3.84E+01	4.25E+00	4.25E+00	ND	ND	ND
Benzoic acid	65-85-0	0.999992	1.28E+01	2.33E+03	3.17E+00	3.17E+00	ND	16.8[g]	16.8[g]
Benzo (a) anthracene	50-32-8	0.264620	1.22E+04	1.26E+00	1.10E-02	1.10E-02	2.19E+09	2.25E+05	2.25E+05
Benzo (b) fluoranthrene	205-99-2	0.821980	1.39E+04	1.66E+00	1.01E-02	1.01E-02	3.53E+08	3.65E+04	3.65E+04
Benzo (j) fluoranthrene	205-82-3	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (k) fluoranthrene	207-08-9	0.148943	1.38E+04	1.66E+00	1.01E-02	1.01E-02	5.15E+09	5.40E+05	5.40E+05
Benzo (g,h,i) perylene	191-24-2	ND	3.35E+04	4.09E+00	5.19E-03	5.19E-03	ND	ND	ND
Benzo (a) pyrene	50-32-8	0.264620	1.22E+04	1.26E+00	1.10E-02	1.10E-02	2.19E+09	2.25E+05	2.25E+05
Benzo (e) pyrene	192-97-2	ND	ND	ND	ND	ND	ND	ND	ND
Benzyl alcohol	100-51-6	0.999996	7.94E+00	7.77E+01	8.95E+00	8.95E+00	2.13E+04	2.19E+00	2.19E+00
Benzaldehyde	100-52-7	1.00	9.50E+00	4.72E+01	5.42E+00	5.42E+00	4.86E+02	5.00E-02	5.00E-02
Benzenethiol (Phenylmercaptan or Thiophenol)	108-98-5	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl (Phenylbenzene or Diphenyl)	92-52-4	1.00[e]	35[e]	ND	0.2[e]	0.2[e]	ND	7.7[e]	7.7[e]
4-Bromophenyl phenyl ether	101-55-3	0.999699	1.78E+03	1.47E+00	4.72E-02	4.72E-02	ND	ND	ND
Butyl benzyl phthalate	85-68-7	0.963708	5.87E+02	4.27E+00	1.09E-01	1.09E-01	1.42E+07	1.46E+03	1.46E+03
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7	ND	1.68E+02	1.57E+01	2.85E-01	2.85E-01	ND	ND	ND
4-Chloroaniline	106-47-8	0.999993	1.27E+01	3.12E+01	3.22E+00	3.22E+00	4.54E+04	4.66E+00	4.66E+00
bis(2-Chloroethoxy)-methane	111-91-1	ND	8.48E+00	6.23E+01	7.24E+00	7.24E+00	ND	ND	ND
bis(2-Chloroethyl) ether	111-44-4	1.00	8.64E+00	1.14E+01	6.85E+00	6.85E+00	6.19E+02	6.37E-02	6.37E-02

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Semi-volatile Organic Compounds									
Acenaphthene	83-32-9	7.32E-05	2.31E-04	2.80E-04	7.32E-02	1.83E-04	6.07E+02	ND	ND
Acenapthylene	208-96-8	9.33E-05	2.95E-04	1.94E-03	9.33E-02	2.36E-04	ND	ND	ND
Acetophenone	98-86-2	3.47E-07	1.10E-06	1.33E-06	3.47E-04	8.66E-07	1.04E+01	ND	ND
2-Acetylaminofluorene	53-96-3	1.51E-05	4.79E-05	3.14E-04	1.51E-02	3.83E-05	1.83E+02	ND	ND
4-Aminobiphenyl (p-Biphenylamine)	92-67-1	4.79E-06	1.51E-05	9.94E-05	4.79E-03	1.21E-05	7.63E+01	ND	ND
3-Amino-9-ethycarbazole	132-32-1	ND	ND	ND	ND	ND	ND	ND	ND
Aniline	62-53-3	7.58E-08	2.40E-07	2.90E-07	7.59E-05	1.89E-07	3.27E+00	ND	ND
Anthracene	120-12-7	2.34E-04	7.41E-04	8.98E-04	2.34E-01	5.85E-04	ND	2.60E+03	ND
Aramite	140-57-8	ND	ND	ND	ND	ND	ND	ND	ND
Benzidine	92-87-5	3.63E-07	1.15E-06	7.54E-06	3.63E-04	9.19E-07	1.08E+01	ND	ND
Benzoic acid	65-85-0	6.04E-07	1.91E-06	2.31E-06	6.04E-05	1.51E-06	1.58E+01	ND	ND
Benzo (a) anthracene	50-32-8	1.07E-02	3.38E-02	4.10E-02	1.07E+01	2.67E-02	ND	9.95E+03	ND
Benzo (b) fluoranthrene	205-99-2	1.27E-02	4.00E-02	4.84E-02	1.27E+01	3.16E-02	ND	9.95E+03	ND
Benzo (j) fluoranthrene	205-82-3	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (k) fluoranthrene	207-08-9	1.26E-02	3.98E-02	4.82E-02	1.26E+01	3.14E-02	ND	9.95E+03	ND
Benzo (g,h,i) perylene	191-24-2	3.98E-02	1.26E-01	8.27E-01	ND	1.01E-01	ND		ND
Benzo (a) pyrene	50-32-8	1.07E-02	3.38E-02	4.10E-02	1.07E+01	2.67E-02	ND	9.95E+03	ND
Benzo (e) pyrene	192-97-2	ND	ND	ND	ND	ND	ND		ND
Benzyl alcohol	100-51-6	1.00E-07	3.16E-07	3.83E-07	1.00E-04	2.50E-07	4.04E+00	ND	ND
Benzaldehyde	100-52-7	2.38E-07	7.54E-07	9.12E-07	2.38E-04	5.95E-07	7.81E+00	ND	ND
Benzenethiol (Phenylmercaptan or Thiophenol)	108-98-5	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl (Phenylbenzene or Diphenyl)	92-52-4	7.20E-05[e]	2.30E-04[e]	2.80E-04[e]	8.13E-02	1.84E-04	ND	ND	ND
4-Bromophenyl phenyl ether	101-55-3	8.74E-04	2.76E-03	3.34E-03	8.74E-01	2.18E-03	ND	1.46E+04	ND
Butyl benzyl phthalate	85-68-7	2.06E-04	6.50E-04	7.87E-04	2.06E-01	5.13E-04	ND	2.35E+03	ND
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7	3.89E-05	1.23E-04	8.08E-04	3.89E-02	9.84E-05	3.75E+02	ND	ND
4-Chloroaniline	106-47-8	5.88E-07	1.86E-06	2.25E-06	5.88E-04	1.47E-06	1.55E+01	ND	ND
bis(2-Chloroethoxy)-methane	111-91-1	1.45E-07	4.57E-07	3.00E-06	1.45E-04	3.66E-07	5.34E+00	ND	ND
bis(2-Chloroethyl) ether	111-44-4	1.59E-07	5.02E-07	6.08E-07	1.59E-04	3.97E-07	5.74E+00	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Semi-volatile Organic Compounds							
Acenaphthene	83-32-9	ND	ND	ND	6.00E-02	ND	2.10E-01
Acenapthylene	208-96-8	ND	ND	ND	ND	ND	ND
Acetophenone	98-86-2	ND	ND	ND	1.00E-01	ND	3.50E-01
2-Acetylaminofluorene	53-96-3	ND	ND	ND	ND	ND	ND
4-Aminobiphenyl (p-Biphenylamine)	92-67-1	ND	ND	ND	ND	ND	ND
3-Amino-9-ethycarbazole	132-32-1	ND	ND	ND	ND	ND	ND
Aniline	62-53-3	ND	5.70E-03	5.70E-03	2.90E-04	1.60E-06[g]	1.00E-03
Anthracene	120-12-7	ND	ND	ND	3.00E-01	ND	1.10E+00
Aramite	140-57-8	ND	2.5E-02[n]	2.50E-02[m]	5.0E-02[m]	7.10E-06[n]	1.75E-01
Benzidine	92-87-5	ND	2.30E+02[n]	2.30E+02	3.0E-03[n]	6.70E-02[n]	1.05E-02
Benzoic acid	65-85-0	ND	ND	ND	4.00E+00	ND	1.40E+01
Benzo (a) anthracene	50-32-8	ND	7.30E+00	7.30E+00	ND	2.10E-03	ND
Benzo (b) fluoranthrene	205-99-2	ND	7.30E-01	7.30E-01	ND	2.10E-04[g]	ND
Benzo (j) fluoranthrene	205-82-3	ND	ND	ND	ND	ND	ND
Benzo (k) fluoranthrene	207-08-9	ND	7.30E-02	7.30E-02	ND	2.10E-05	ND
Benzo (g,h,i) perylene	191-24-2	ND	ND	ND	ND	ND	ND
Benzo (a) pyrene	50-32-8	ND	7.30E+00	7.30E+00	ND	2.10E-03	ND
Benzo (e) pyrene	192-97-2	ND	ND	ND	ND	ND	ND
Benzyl alcohol	100-51-6	ND	ND	ND	3.00E-01	ND	1.10E+00
Benzaldehyde	100-52-7	ND	ND	ND	1.01E-01	ND	3.50E-01
Benzenethiol (Phenylmercaptan or Thiophenol)	108-98-5	ND	ND	ND	1.0E-05[m]	ND	3.50E-05
1,1'-Biphenyl (Phenylbenzene or Diphenyl)	92-52-4	ND	ND	ND	5.0E-02[n]	ND	1.75E-01
4-Bromophenyl phenyl ether	101-55-3	ND	ND	ND	5.80E-02	ND	2.03E-01
Butyl benzyl phthalate	85-68-7	ND	ND	ND	2.00E-01	ND	7.00E-01
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7	ND	ND	ND	1.00E-03[n]	ND	3.50E-03
4-Chloroaniline	106-47-8	ND	ND	ND	4.00E-03	ND	1.40E-02
bis(2-Chloroethoxy)-methane	111-91-1	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl) ether	111-44-4	ND	1.10E+00	1.10E+00	ND	3.30E-04	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Semi-volatile Organic Compounds (Continued)								
Bis-chloroisopropyl ether	108-60-1	171.07	369.9	7.00E-03	1.70E+03	7.04E-04	3.61E-02	7.38E-06
Chlorobenzilate	510-15-6	325.2	309	2.90E-09	1.30E+01	7.24E-08	1.65E-02	4.72E-06
4-Chloro-3-methylphenol	59-50-7	142.58	328.6	1.08E-05[g]	3.85E+03	4.00E-07[g]	6.96E-02	8.06E-05
1-Chloronaphthalene	90-13-1	162.61[d]	270.65[d]	ND	ND	ND	6.27E-02	7.26E-07
2-Chloronaphthalene	91-58-7	162.61	332.6	1.05E-05	1.20E+01	1.43E-04	3.64E-02	8.24E-06
2-Chlorophenol	95-57-8	128.56	282.1	2.77E-03	2.15E+04	1.66E-05	5.01E-02	9.46E-06
4-Chlorophenyl-phenylether	7005-72-3	204.66	265.1	3.55E-06	3.30E+00	2.20E-04	5.47E-02	6.33E-06
Chrysene	218-01-9	228.28	527.1	1.03E-11	1.94E-03	1.21E-06	2.48E-02	6.21E-06
4,4'-DDE	72-55-9	319.03	361.1	7.45E-09	1.92E-02	1.24E-04	1.70E-02	4.78E-06
Diallate	2303-16-4	270.24[d]	298.15[c]	ND	1.40E+01[f]	ND	4.46E-02	5.17E-07
Dibenz(a,h)anthracene	53-70-3	278.33	539.1	2.70E-14	6.70E-04	1.20E-08	1.80E-02	6.01E-06
Dibenz(a,j)acridine	224-42-0	279.34[c]	489.15[c]	ND	ND	ND	4.36E-02	5.05E-07
Dibenzofuran	132-64-9	168.19[f]	359.15[f]	ND	1.00E+01[f]	ND	6.13E-02	7.10E-07
DBCP (1,2-Dibromo-3-chloropropane)	96-12-8	236.36	279.2	1.00E-03	1.20E+03	1.97E-04	1.79E-02	8.79E-06
Di-n-butyl phthalate	84-74-2	278.34	238.1	5.55E-08	1.08E+01	1.43E-06	4.38E-02	7.86E-06
1,2-Dichlorobenzene	95-50-1	147.01	256.1	1.79E-03	1.25E+02	2.11E-03	4.11E-03	8.93E-06
1,3-Dichlorobenzene	541-73-1	147.01	297.86	3.03E-03	6.88E+01	1.11E+02	4.14E-02	8.85E-06
1,4-Dichlorobenzene	106-46-7	147.01	326.6	1.39E-03	7.30E+01	2.80E-03	4.14E-02	8.85E-06
3,3'-Dichlorobenzidine	91-94-1	253.13	405.1	2.89E-10	3.52E+00	2.08E-08	2.28E-02	5.48E-06
2,4-Dichlorophenol	120-83-2	163.01	318.1	7.21E-06	4.93E+03	2.38E-07	2.69E-02	7.79E-06
2,6-Dichlorophenol	87-65-0	163.01[d]	338.65[d]	ND	ND	4.00E-05[f]	6.26E-02	7.25E-07
Dihydrosafrole	94-58-6	164.2[c]	ND	ND	ND	ND	6.23E-02	7.21E-07
Diethyl phthalate	84-66-2	222.24	232.6	2.17E-06	8.80E+02	5.48E-07	2.56E-02	6.35E-06
Diisopropyl methylphosphonate	1445-75-6	180.18[c]	ND	ND	ND	ND	5.85E-02	6.78E-07
p-(Dimethylamino)azobenzene	60-11-7	225.28[d]	390.15[d]	ND	ND	ND	5.85E-02	6.78E-07
7,12-Dimethylbenz[a]-anthracene (DMBA)	57-97-6	256.33[d]	396.15[d]	ND	6.10E-02[f]	ND	5.85E-02	6.78E-07
3,3'-Dimethyoxybenzidine	119-90-4	244.28	410.1	3.30E-10	2.40E+02	3.36E-10	2.38E-02	5.60E-06
a,a-Dimethylphenethyl-amine (Phentermine)	122-09-8	149.23[d]	471.15[d]	ND	ND	ND	6.64E-02	7.69E-07
2,4-Dimethylphenol	105-67-9	122.17	300.1	1.66E-04[g]	6.25E+03	3.24E-06[g]	5.84E-02	8.69E-06

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Semi-volatile Organic Compounds (Continued)								
Bis-chloroisopropyl ether	108-60-1	380	2.58	146.00	1.46	10.9[g]	5.82	1.41E+00
Chlorobenzilate	510-15-6	24000	4.38	3690.00	36.90	277.00	148.00	7.23E+00
4-Chloro-3-methylphenol	59-50-7	1260	3.10	371[g]	3.71[g]	27.8[g]	14.8[g]	1.10E+01
1-Chloronaphthalene	90-13-1	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	91-58-7	11700	4.07	7140.00	7140.00	536.00	286.00	0.00E+00
2-Chlorophenol	95-57-8	145	2.16	(j)	3.87	29.00	15.50	0.00E+00
4-Chlorophenyl-phenylether	7005-72-3	58500	4.77	7400.00	74.00	555.00	296.00	0.00E+00
Chrysene	218-01-9	548000	5.74	297000.00	2970.00	22300.00	11900.00	2.53E-01
4,4'-DDE	72-55-9	1800000	6.26	86400[g]	864[g]	6480.00	3460.00	4.34E-02
Diallate	2303-16-4	30902.95[i]	4.49	4499.87	45.00	337.49	ND	ND
Dibenz(a,h)anthracene	53-70-3	3530000	6.55	1790000.00	17900.00	134000.00	71600.00	2.69E-01
Dibenz(a,j)acridine	224-42-0	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	132-64-9	13182.57[i]	4.12	2315.26	23.15	173.64	92.61	ND
DBCP (1,2-Dibromo-3-chloropropane)	96-12-8	219	2.34	94.70	0.95	7.10	3.79	1.41E+00
Di-n-butyl phthalate	84-74-2	52500	4.72	1570.00	15.70	118.00	62.70	1.11E+01
1,2-Dichlorobenzene	95-50-1	2790	3.45	379.00	3.79	28.40	15.20	1.41E+00
1,3-Dichlorobenzene	541-73-1	3390	3.53	803[g]	8.03[g]	60.2[g]	32.1[g]	1.41E+00
1,4-Dichlorobenzene	106-46-7	2580	3.41	616.00	6.16	46.20	24.60	1.41E+00
3,3'-Dichlorobenzidine	91-94-1	3760	3.58	870.00	8.70	65.20	34.80	1.41E+00
2,4-Dichlorophenol	120-83-2	1090	3.04	(j)	1.40	10.50	5.58	3.61E+00
2,6-Dichlorophenol	87-65-0	758.58[f]	2.88	249.69	2.50	18.73	9.99	ND
Dihydrosafrole	94-58-6	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	84-66-2	27300	4.44	82.00	0.82	6.15	3.28	4.52E+00
Diisopropyl methylphosphonate	1445-75-6	ND	ND	ND	ND	ND	ND	ND
p-(Dimethylamino)azobenzene	60-11-7	38019[f]	4.58	5289.33	52.89	396.70	211.57	ND
7,12-Dimethylbenz[a]-anthracene (DMBA)	57-97-6	4168693[i]	6.62	206347.84	2063.48	15476.09	8253.91	ND
3,3'-Dimethyoxybenzidine	119-90-4	65	1.81	36.50	0.37	2.74	1.46	1.41E+00
a,a-Dimethylphenethyl-amine (Phentermine)	122-09-8	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	105-67-9	229	2.36	(j)	1.26	9.44	5.04	3.61E+01

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Semi-volatile Organic Compounds (Continued)									
Bis-chloroisopropyl ether	108-60-1	1.00	2.88E+01	1.98E+01	1.25E+00	ND	4.31E+02	4.44E-02	4.44E-02
Chlorobenzilate	510-15-6	0.861816	5.54E+02	1.50E+01	1.14E-01	1.14E-01	3.46E+08	3.57E+04	3.57E+04
4-Chloro-3-methylphenol	59-50-7	0.999972[g]	6.30E+01	17[g]	6.25E-01	6.25E-01	ND	280[g]	280[g]
1-Chloronaphthalene	90-13-1	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	91-58-7	0.999974	3.23E+02	4.51E+00	1.72E-01	1.72E-01	8.16E+04	8.46E+00	8.46E+00
2-Chlorophenol	95-57-8	1.00	1.70E+01	4.40E+00	2.18E+00	2.18E+00	6.55E+03	6.76E-01	6.76E-01
4-Chlorophenyl-phenylether	7005-72-3	0.999832	1.09E+03	1.48E+01	6.80E-02	6.80E-02	2.94E+05	3.03E+01	3.03E+01
Chrysene	218-01-9	0.761276	6.10E+03	2.05E+00	1.87E-02	1.87E-02	5.80E+08	5.97E+04	5.97E+04
4,4'-DDE	72-55-9	0.981338	1.53E+04	1.77E+01	9.37E-03	9.37E-03	2.01E+07	2.08E+03	2.08E+03
Diallate	2303-16-4	ND	6.72E+02	1.49E+01	9.84E-02	9.84E-02	ND	ND	ND
Dibenz(a,h)anthracene	53-70-3	0.010868	2.56E+04	1.43[g]	6.36E-03	6.36E-03	4.25E+11	4.68E+07	4.68E+07
Dibenz(a,j)acridine	224-42-0	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	132-64-9	ND	3.52E+02	1.52E+01	1.61E-01	1.61E-01	ND	ND	ND
DBCP (1,2-Dibromo-3-chloropropane)	96-12-8	0.999999	2.10E+01	2.20E+01	1.72E+00	1.72E+00	8.56E+02	8.81E-02	8.81E-02
Di-n-butyl phthalate	84-74-2	0.989393	1.01E+03	6.43E+01	7.24E-02	7.24E-02	4.04E+07	4.16E+03	4.16E+03
1,2-Dichlorobenzene	95-50-1	1.00	1.11E+02	2.92E+01	3.95E-01	3.95E-01	1.20E+03	1.24E-01	1.24E-01
1,3-Dichlorobenzene	541-73-1	1.00	1.28E+02	15.9[g]	3.53E-01	3.53E-01	2.81E-02	8.02E-02	8.02E-02
1,4-Dichlorobenzene	106-46-7	1.00	1.05E+02	1.70E+01	4.13E-01	4.13E-01	8.33E+02	8.60E-02	8.60E-01
3,3'-Dichlorobenzidine	91-94-1	0.847495	1.38E+02	1.58E+02	3.32E-01	3.32E-01	1.67E+08	1.73E+04	1.73E+04
2,4-Dichlorophenol	120-83-2	0.999948	5.68E+01	4.07E+01	6.82E-01	6.82E-01	3.91E+06	4.01E+02	4.01E+02
2,6-Dichlorophenol	87-65-0	ND	4.46E+01	1.79E+01	8.38E-01	8.38E-01	ND	ND	ND
Dihydrosafrole	94-58-6	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	84-66-2	0.999726	6.12E+02	7.46E+02	1.06E-01	1.06E-01	5.25E+07	5.42E+03	5.42E+03
Diisopropyl methylphosphonate	1445-75-6	ND	ND	ND	ND	ND	ND	ND	ND
p-(Dimethylamino)azobenzene	60-11-7	ND	7.87E+02	1.49E+01	8.72E-02	8.72E-02	ND	ND	ND
7,12-Dimethylbenz[a]-anthracene (DMBA)	57-97-6	ND	2.91E+04	1.41E+01	5.78E-03	5.78E-03	ND	ND	ND
3,3'-Dimethyoxybenzidine	119-90-4	0.876710	1.21E+01	3.30E+01	3.48E+00	3.48E+00	1.37E+08	1.41E+04	1.41E+04
a,a-Dimethylphenethyl-amine (Phentermine)	122-09-8	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	105-67-9	1.00[g]	2.16E+01	1.71E+01	1.68E+00	1.68E+00	ND	5.62[g]	5.62[g]

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Semi-volatile Organic Compounds (Continued)									
Bis-chloroisopropyl ether	108-60-1	3.02E-06	9.55E-06	1.16E-05	3.02E-03	7.54E-06	5.38E+01	ND	ND
Chlorobenzilate	510-15-6	1.91E-04	6.03E-04	7.29E-04	1.91E-01	4.76E-04	ND	2.03E+03	ND
4-Chloro-3-methylphenol	59-50-7	1.00E-05	3.16E-05	3.83E-05	1.00E-02	2.50E-05	1.34E-03	ND	ND
1-Chloronaphthalene	90-13-1	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	91-58-7	9.33E-05	2.95E-04	3.57E-04	9.33E-02	2.33E-04	ND	9.60E+02	ND
2-Chlorophenol	95-57-8	1.15E-06	3.64E-06	4.41E-06	1.15E-03	2.88E-06	2.59E+01	ND	ND
4-Chlorophenyl-phenylether	7005-72-3	4.65E-04	1.47E-03	1.78E-03	4.65E-01	1.16E-03	ND	6.06E+03	ND
Chrysene	218-01-9	4.36E-03	1.38E-02	1.67E-02	4.35E+00	1.09E-02	ND	6.03E+03	ND
4,4'-DDE	72-55-9	1.43E-02	4.53E-02	5.49E-02	1.43E+01	3.58E-02	ND	5.53E+05	ND
Diallate	2303-16-4	2.45E-04	7.76E-04	5.10E-03	2.45E-01	6.21E-04	ND		ND
Dibenz(a,h)anthracene	53-70-3	2.80E-02	8.86E-02	1.07E-02	2.80E+01	7.00E-02	ND	1.28E+04	ND
Dibenz(a,j)acridine	224-42-0	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	132-64-9	1.05E-04	3.31E-04	2.18E-03	1.05E-01	2.65E-04	ND		ND
DBCP (1,2-Dibromo-3-chloropropane)	96-12-8	1.74E-06	5.50E-06	6.65E-06	1.74E-03	4.34E-06	3.54E+01	ND	ND
Di-n-butyl phthalate	84-74-2	4.17E-04	1.32E-03	1.60E-03	4.17E-01	1.04E-03	ND	5.58E+03	ND
1,2-Dichlorobenzene	95-50-1	2.21E-05	7.00E-05	8.48E-05	2.21E-02	5.53E-05	2.45E+02	ND	ND
1,3-Dichlorobenzene	541-73-1	2.69E-05	8.52E-05	1.03E-04	2.69E-02	6.72E-05	2.84E+02	ND	ND
1,4-Dichlorobenzene	106-46-7	2.05E-05	6.49E-05	7.86E-05	2.05E-02	5.12E-05	2.31E+02	ND	ND
3,3'-Dichlorobenzidine	91-94-1	2.99E-05	9.44E-05	1.14E-04	2.99E-02	7.45E-05	3.07E+02	ND	ND
2,4-Dichlorophenol	120-83-2	8.62E-06	2.73E-05	3.30E-05	8.62E-03	2.15E-05	1.19E+02	ND	ND
2,6-Dichlorophenol	87-65-0	6.03E-06	1.91E-05	1.25E-04	6.03E-03	1.52E-05	9.09E+01	ND	ND
Dihydrosafrole	94-58-6	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	84-66-2	2.17E-04	6.87E-04	8.31E-04	2.17E-01	5.42E-04	ND	2.45E+03	ND
Diisopropyl methylphosphonate	1445-75-6	ND	ND	ND	ND	ND	ND	ND	ND
p-(Dimethylamino)azobenzene	60-11-7	3.02E-04	9.55E-04	6.27E-03	3.02E-01	7.64E-04	ND		ND
7,12-Dimethylbenz[a]-anthracene (DMBA)	57-97-6	3.31E-02	1.05E-01	6.88E-01	3.31E+01	8.38E-02	ND		ND
3,3'-Dimethyoxybenzidine	119-90-4	5.13E-06	1.62E-06	1.96E-06	5.13E-04	1.28E-06	1.40E+01	ND	ND
a,a-Dimethylphenethyl-amine (Phentermine)	122-09-8	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	105-67-9	1.82E-06	5.75E-06	6.96E-06	1.82E-03	4.54E-05	3.66E+01	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Semi-volatile Organic Compounds (Continued)							
Bis-chloroisopropyl ether	108-60-1	ND	7.0E-02[m]	3.5EE-02[m]	4.00E-02	1.00E-05	1.40E-01
Chlorobenzilate	510-15-6	ND	2.70E-01	2.70E-01	2.00E-02	7.80E-05[g]	7.00E-02
4-Chloro-3-methylphenol	59-50-7	ND	ND	ND	ND	ND	ND
1-Chloronaphthalene	90-13-1	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	91-58-7	ND	ND	ND	8.00E-02	ND	2.80E-01
2-Chlorophenol	95-57-8	ND	ND	ND	5.00E-03	ND	1.80E-02
4-Chlorophenyl-phenylether	7005-72-3	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	ND	7.30E-03	ND	ND	2.10E-06	ND
4,4'-DDE	72-55-9	ND	3.40E-01	3.40E-01	ND	9.70E-05	ND
Diallate	2303-16-4	ND	6.10E-02[m]	6.10E-02[m]	ND	1.74E-05[m]	ND
Dibenz(a,h)anthracene	53-70-3	ND	7.30E+00	7.30E+00	ND	2.10E-03	ND
Dibenz(a,j)acridine	224-42-0	ND	ND	ND	ND	ND	ND
Dibenzofuran	132-64-9	ND	ND	ND	ND	ND	ND
DBCP (1,2-Dibromo-3-chloropropane)	96-12-8	ND	1.40E+00	2.40E-03	5.70E-05	6.86E-07[g]	2.00E-04
Di-n-butyl phthalate	84-74-2	ND	ND	ND	1.00E-01	ND	3.50E-01
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	9.00E-02	ND	2.00E-01
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	9.0E-04[g]	ND	3.15E-03[g]
1,4-Dichlorobenzene	106-46-7	ND	2.40E-02	2.40E-02	3.0E-02[g]	6.90E-06[g]	8.00E-01
3,3'-Dichlorobenzidine	91-94-1	ND	4.50E-01	4.50E-01	ND	1.30E-04	ND
2,4-Dichlorophenol	120-83-2	ND	ND	ND	3.00E-03	ND	1.10E-02
2,6-Dichlorophenol	87-65-0	ND	ND	ND	ND	ND	ND
Dihydrosafrole	94-58-6	ND	ND	ND	ND	ND	ND
Diethyl phthalate	84-66-2	ND	ND	ND	8.00E-01	ND	2.80E+00
Diisopropyl methylphosphonate	1445-75-6	ND	ND	ND	8.0E-02[n]	ND	2.80E-01
p-(Dimethylamino)azobenzene	60-11-7	ND	ND	ND	ND	ND	ND
7,12-Dimethylbenz[a]-anthracene (DMBA)	57-97-6	ND	ND	ND	ND	ND	ND
3,3'-Dimethyoxybenzidine	119-90-4	ND	1.40E-02	1.40E-02	ND	4.00E-06[g]	ND
a,a-Dimethylphenethyl-amine (Phentermine)	122-09-8	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	105-67-9	ND	ND	ND	2.00E-02	ND	7.00E-02

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Semi-volatile Organic Compounds (Continued)								
Dimethyl phthalate	131-11-3	194.19	273.1	2.17E-06	4.19E+03	1.01E-07	2.96E-02	7.13E-06
1,3-Dinitrobenzene	99-65-0	168.11	363	4.00E-07	5.40E+02	1.25E-07	3.18E-02	9.15E-06
4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	198.13[d]	360.65[d]	ND	1.30E+02[f]	1.40E-06[f]	5.49E-02	6.36E-07
2,4-Dinitrophenol	51-28-5	184.11	385.1	1.52E-07	5.80E+03	4.82E-09	2.73E-02	9.06E-06
2,4-Dinitrotoluene	121-14-2	182.14	344	2.29E-07	2.85E+02	1.46E-07	3.09E-02	7.86E-07
2,6-Dinitrotoluene	606-20-2	182.15	339	7.47E-08	1.05E+03	1.30E-07	3.11E-02	7.76E-06
Dioxathion	78-34-2	456.54[d]	253.15[d]	ND	ND	ND	3.14E-02	3.64E-07
Di-n-octyl phthalate	117-84-0	390.53	248.1	5.88E-09[g]	3.00E+00	7.65E-07[g]	1.32E-02	4.20E-06
1,2-Diphenylhydrazine	122-66-7	184.24	401.1	4.74E-08	6.80E+01	1.28E-07	2.95E-02	7.24E-06
N,N-Diphenylamine (Phenylbenzenamine)	122-39-4	169.22[d]	327.15[d]	ND	3.00E+02[f]	ND	6.80E-02[e]	6.30E-05[e]
bis(2-Ethylhexyl)-phthalate	117-81-7	390.54	218.1	8.49E-09[g]	3.96E-01	8.37E-06[g]	1.32E-02	4.22E-06
Ethyl methanesulfonate	62-50-0	124.15	373.0	3.50E-04	4.90E+05	8.87E-08	7.63E-02	8.84E-06
Ethyl parathion (Parathion)	56-38-2	291.3[d]	279.15[d]	ND	ND	ND	4.24E-02	4.91E-07
Fluoranthene	206-44-0	202.26	383.1	1.07E-08	2.32E-01	9.33E-06	2.75E-02	7.18E-06
Fluorene	86-73-7	166.22	389.1	8.17E-07[g]	1.86E+00[g]	7.30E-05[g]	3.63E-02	7.88E-06
Heptachlor	76-44-8	373.35	368.1	4.29E-07	2.73E+01	5.87E-06	1.12E-02	5.69E-06
Hexachlorobenzene	118-74-1	284.8	504.1	1.62E-08	8.62E-03	5.35E-04	1.41E-02	7.84E-06
Hexachloro-1,3-butadiene	87-68-3	260.76	252.1	2.33E-04	2.45E+00	2.39E-02	1.73E-02	7.33E-06
Hexachlorocyclopentadiene	77-47-4	272.77	264.1	9.63E-05	1.53E+00	1.72E-02	1.61E-02	7.21E-06
Hexachloroethane	67-72-1	236.74	459.7	6.21E-04	4.08E+01	3.60E-03	1.77E-02	8.88E-06
Hexachlorophene	70-30-4	406.92	437.1	3.60E-15	3.00E-03	4.88E-10	3.46E-02	4.01E-06
Hexachloropropene	1888-71-7	248.75[f]	ND	ND	ND	ND	4.72E-02	5.46E-07
Indeno(1,2,3-cd)pyrene	193-39-5	276.34	435	1.88E-13	1.07E-02	4.86E-09	1.90E-02	5.66E-06
Isophorone	78-59-1	138.21	265.1	5.38E-04[g]	1.20E+04	6.20E-06[g]	5.22E-02	7.50E-06
Isosafrole	120-58-1	162.18[d]	281.35[d]	ND	1.09E+03[f]	3.25E-12[f]	6.28E-02	7.27E-07
Methapyrilene	91-80-5	261.38[d]	435.15[d]	ND	ND	ND	4.56E-02	5.28E-07
Methoxychlor	72-43-5	345.65	351.1	1.62E-09	8.84E-02	6.33E-06	1.30E-02	5.59E-06
3-Methylcholanthrene	56-49-5	268.34[d]	453.15[d]	ND	3.00E-02[f]	ND	4.48E-02	5.19E-07

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Semi-volatile Organic Compounds (Continued)								
Dimethyl phthalate	131-11-3	43	1.63	30.9[g]	0.309[g]	20.00	10.60	3.61E+01
1,3-Dinitrobenzene	99-65-0	31	1.49	20.60	0.21	1.55	0.83	1.41E+00
4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	204.17[i]	2.31	89.70	0.90	6.73	3.59	ND
2,4-Dinitrophenol	51-28-5	33	1.52	(j)	0.00	0.00	0.00	9.62E-01
2,4-Dinitrotoluene	121-14-2	99	2.00	51.00	0.51	3.83	2.04	1.41E+00
2,6-Dinitrotoluene	606-20-2	77	1.89	41.90	0.42	3.14	1.68	1.41E+00
Dioxathion	78-34-2	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	117-84-0	2140000000	9.33	903000000	9030000	67800000	36100000	9.03E+00
1,2-Diphenylhydrazine	122-66-7	871	2.94	278.00	2.78	20.90	11.10	1.41E+00
N,N-Diphenylamine (Phenylbenzenamine)	122-39-4	3019.95[i]	3.48	2600[e]	26.00	195.00	104.00	ND
bis(2-Ethylhexyl)-phthalate	117-81-7	160000	5.20	111000[g]	1110.00	8330.00	4440.00	1.10E+01
Ethyl methanesulfonate	62-50-0	1	0.05	1.55	0.02	0.12	0.06	7.88E+01
Ethyl parathion (Parathion)	56-38-2	6760.83[i]	3.83	1375.31	13.75	103.15	55.01	ND
Fluoranthene	206-44-0	121000	5.08	49100.00	491.00	3680.00	1960.00	5.75E-01
Fluorene	86-73-7	14700	4.17	7710.00	77.10	578.00	308.00	4.22E+00
Heptachlor	76-44-8	104000	5.02	9530.00	95.30	715.00	381.00	1.41E+00
Hexachlorobenzene	118-74-1	318000	5.50	80000.00	800.00	6000.00	3200.00	1.21E-01
Hexachloro-1,3-butadiene	87-68-3	53800	4.73	6940.00	69.40	520.00	277.00	1.41E+00
Hexachlorocyclopentadiene	77-47-4	80700[g]	4.91	9510.00	95.10	713.00	380.00	9.03E+00
Hexachloroethane	67-72-1	9660	3.98	1820[g]	18.20	13.60	72.70	1.41E+00
Hexachlorophene	70-30-4	34700000	7.54	1080000.00	10800.00	80800.00	43100.00	7.71E-01
Hexachloropropene	1888-71-7	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	8220000	6.91	4110000.00	41100.00	308000.00	164000.00	3.47E-01
Isophorone	78-59-1	50	1.70	29.90	0.30	2.25	1.20	9.03E+00
Isosafrole	120-58-1	457[f]	2.66	168.16	1.68	12.61	6.73	ND
Methapyrilene	91-80-5	549.5[f]	2.74	194.17	1.94	14.56	7.77	ND
Methoxychlor	72-43-5	33600	4.53	80000.00	800.00	6000.00	3200.00	6.93E-01
3-Methylcholanthrene	56-49-5	2630268[i]	6.42	144078.77	1440.79	10805.91	5763.15	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Semi-volatile Organic Compounds (Continued)									
Dimethyl phthalate	131-11-3	0.999726	1.05E+01	34[g]	4.40E+00	4.40E+00	2.95E+05	3.05E+01	3.05E+01
1,3-Dinitrobenzene	99-65-0	0.999661	9.58E+00	4.64E+01	5.32E+00	5.32E+00	1.68E+05	1.74E+01	1.74E+01
4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	ND	2.03E+01	2.26E+01	1.79E+00	1.79E+00	ND	ND	ND
2,4-Dinitrophenol	51-28-5	0.999461	9.74E+00	9.74E+04	5.13E+00	5.13E+00	4.66E+06	4.80E+02	4.80E+02
2,4-Dinitrotoluene	121-14-2	0.999088	1.43E+01	2.80E+01	2.72E+00	2.72E+00	4.96E+05	5.10E+01	5.10E+01
2,6-Dinitrotoluene	606-20-2	0.999686	1.29E+01	3.08E+01	3.15E+00	3.15E+00	4.26E+05	4.41E+01	4.41E+01
Dioxathion	78-34-2	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	117-84-0	0.90811[g]	3.55E+06	3.93E-01	1.57E-04	1.57E-04	ND	6.30E+08[g]	6.30E+08[g]
1,2-Diphenylhydrazine	122-66-7	0.998800	4.90E+01	1.76E+01	7.74E-01	7.74E-01	5.73E+06	5.89E+02	5.89E+02
N,N-Diphenylamine (Phenylbenzenamine)	122-39-4	1.00[e]	15[e]	ND	0.38[e]	0.38[e]	ND	57000[e]	57000[e]
bis(2-Ethylhexyl)-phthalate	117-81-7	0.935[g]	2.37E+03	2.13E+00	3.80E-02	3.80E-02	ND	2330[g]	2330[g]
Ethyl methanesulfonate	62-50-0	1.00	6.56E+00	4.24E+02	3.63E+01	3.63E+01	6.90E+03	7.11E-01	7.11E-01
Ethyl parathion (Parathion)	56-38-2	ND	2.13E+02	1.55E+01	2.37E-01	2.37E-01	ND	ND	ND
Fluoranthene	206-44-0	0.992042	1.92E+03	3.90E+00	4.46E-02	4.46E-02	1.51E+07	1.56E+03	1.56E+03
Fluorene	86-73-7	0.999908[g]	3.83E+02	4.96E+00	1.51E-01	1.51E-01	ND	21[g]	21[g]
Heptachlor	76-44-8	0.999718	1.70E+03	1.78E+01	4.89E-02	4.89E-02	2.04E+07	2.09E+03	2.09E+03
Hexachlorobenzene	118-74-1	0.999663	4.02E+03	5.02E+00	2.56E-02	2.56E-02	7.35E+05	7.57E+01	7.57E+01
Hexachloro-1,3-butadiene	87-68-3	0.999997	1.03E+03	1.48E+01	7.14E-02	7.14E-02	2.48E+03	2.55E-01	2.55E-01
Hexachlorocyclopentadiene	77-47-4	0.999994	1.40E+03	1.47E+01	5.65E-02	5.65E-02	5.31E+03	5.47E-01	5.47E-01
Hexachloroethane	67-72-1	1.00	2.78E+02	1.53E+01	1.93E-01	1.93E-01	2.64E+03	2.72E-01	2.72E-01
Hexachlorophene	70-30-4	0.000143	1.49E+05	1.38E+00	1.70E-03	1.70E-03	1.19E+14	1.23E+10	1.23E+10
Hexachloropropene	1888-71-7	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	0.007092	4.91E+04	1.19E+00	3.90E-03	3.90E-03	2.58E+12	2.67E+08	2.67E+08
Isophorone	78-59-1	1.00	1.10E+01	3.68E+01	4.04E+00	4.04E+00	ND	0.581[g]	0.581[g]
Isosafrole	120-58-1	ND	3.23E+01	1.92E+01	1.12E+00	1.12E+00	ND	ND	ND
Methapyrilene	91-80-5	ND	3.62E+01	1.87E+01	1.01E+00	1.01E+00	ND	ND	ND
Methoxychlor	72-43-5	0.901041	7.16E+02	8.95E-01	9.38E-02	9.38E-02	5.67E+06	5.83E+02	5.83E+02
3-Methylcholanthrene	56-49-5	ND	2.04E+04	1.42E+01	7.54E-03	7.54E-03	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Semi-volatile Organic Compounds (Continued)									
Dimethyl phthalate	131-11-3	3.42E-07	1.08E-06	1.31E-06	3.42E-04	8.53E-07	1.03E+01	ND	ND
1,3-Dinitrobenzene	99-65-0	2.46E-07	7.79E-07	9.43E-07	2.46E-04	6.15E-07	7.40E+01	ND	ND
4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	1.62E-06	5.13E-06	3.37E-05	1.62E-03	4.10E-06	3.35E+01	ND	ND
2,4-Dinitrophenol	51-28-5	2.62E-07	8.29E-07	1.00E-06	2.62E-04	6.54E-07	8.40E+00	ND	ND
2,4-Dinitrotoluene	121-14-2	7.86E-07	2.49E-06	3.01E-06	7.86E-04	1.96E-06	5.92E+00	ND	ND
2,6-Dinitrotoluene	606-20-2	6.12E-07	1.93E-06	2.34E-06	6.12E-04	1.53E-06	5.92E+00	ND	ND
Dioxathion	78-34-2	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	117-84-0	1.70E+01	5.37E+01	6.50E+01	1.70E+04	4.24E+01	ND	14000[g]	ND
1,2-Diphenylhydrazine	122-66-7	6.92E-07	2.19E-05	2.65E-05	6.92E-03	1.73E-05	1.01E+02	ND	ND
N,N-Diphenylamine (Phenylbenzenamine)	122-39-4	2.40E-05[e]	7.60E-05[e]	9.20E-05[e]	2.40E-02	6.08E-05	95[e]	ND	ND
bis(2-Ethylhexyl)-phthalate	117-81-7	1.27E-03	4.03E-03	4.88E-03	1.27E+00	3.18E-03	ND	336[g]	ND
Ethyl methanesulfonate	62-50-0	8.90E-09	2.81E-08	3.41E-08	8.90E-06	2.22E-08	6.42E-01	ND	ND
Ethyl parathion (Parathion)	56-38-2	5.37E-05	1.70E-04	1.12E-03	5.37E-02	1.36E-04	4.80E+02	ND	ND
Fluoranthene	206-44-0	9.65E-04	3.05E-03	3.69E-03	9.65E-01	2.41E-03	ND	1.57E+04	ND
Fluorene	86-73-7	1.17E-04	3.70E-04	4.48E-04	1.17E-01	2.92E-04	ND	1.20E+03	ND
Heptachlor	76-44-8	8.22E-04	2.60E-03	3.15E-03	8.22E-01	2.05E-03	ND	20100[g]	ND
Hexachlorobenzene	118-74-1	2.53E-03	7.99E-03	9.68E-03	2.53E+00	6.31E-03	ND	1790[g]	ND
Hexachloro-1,3-butadiene	87-68-3	4.28E-04	1.35E-03	1.64E-03	4.27E-01	1.07E-03	ND	1920[g]	ND
Hexachlorocyclopentadiene	77-47-4	6.41E-04	2.03E-03	2.45E-03	6.41E-01	1.60E-03	ND	5.25E+02	ND
Hexachloroethane	67-72-1	7.67E-05	2.43E-04	2.94E-04	7.67E-02	1.92E-04	6.29E+02	ND	ND
Hexachlorophene	70-30-4	2.75E-01	8.71E-01	1.05E+00	2.75E+02	6.88E-01	ND	4.66E+03	ND
Hexachloropropene	1888-71-7	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	6.53E-02	2.07E-01	2.50E-01	6.53E+01	1.63E-01	ND	1.31E+04	ND
Isophorone	78-59-1	3.97E-07	1.26E-06	1.52E-06	3.97E-04	9.92E-07	1.15E+01	ND	ND
Isosafrole	120-58-1	3.63E-06	1.15E-05	7.54E-05	3.63E-03	9.18E-06	6.19E+01	ND	ND
Methapyrilene	91-80-5	4.36E-06	1.38E-05	9.07E-05	4.36E-03	1.10E-05	7.12E+01	ND	ND
Methoxychlor	72-43-5	2.67E-04	8.43E-04	1.02E-03	2.67E-01	6.66E-04	ND	3.16E+03	ND
3-Methylcholanthrene	56-49-5	2.09E-02	6.61E-02	4.34E-01	2.09E+01	5.29E-02	ND		ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Semi-volatile Organic Compounds (Continued)							
Dimethyl phthalate	131-11-3	ND	ND	ND	1.00E+01	ND	3.50E+01
1,3-Dinitrobenzene	99-65-0	ND	ND	ND	1.00E-04	ND	3.50E-04
4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	51-28-5	ND	ND	ND	2.00E-03	ND	7.00E-03
2,4-Dinitrotoluene	121-14-2	ND	6.80E-01	6.80E-01	2.00E-03	0.00019[g]	7.00E-03
2,6-Dinitrotoluene	606-20-2	ND	6.80E-01	6.80E-01	1.00E-03	0.00019[g]	3.50E-03
Dioxathion	78-34-2	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	117-84-0	ND	ND	ND	2.00E-02	ND	7.00E-02
1,2-Diphenylhydrazine	122-66-7	ND	8.00E-01	8.00E-01	ND	2.20E-04	ND
N,N-Diphenylamine (Phenylbenzenamine)	122-39-4	ND	ND	ND	2.50E-02[n]	ND	8.75E-02
bis(2-Ethylhexyl)-phthalate	117-81-7	ND	1.40E-02	1.40E-02	2.00E-02	4.00E-06	7.00E-02
Ethyl methanesulfonate	62-50-0	ND	2.93E+02	2.93E+02	ND	8.40E-02[g]	ND
Ethyl parathion (Parathion)	56-38-2	ND	2.94E+02	2.94E+02	0.006[o]	8.40E-02[g]	2.10E-02
Fluoranthene	206-44-0	ND	ND	ND	4.00E-02	ND	1.41E-01
Fluorene	86-73-7	ND	ND	ND	4.00E-02	ND	1.40E-01
Heptachlor	76-44-8	ND	4.50E+00	4.50E+00	5.00E-04	1.30E-03	1.80E-03
Hexachlorobenzene	118-74-1	ND	1.60E+00	1.60E+00	8.00E-04	4.60E-04	2.80E-03
Hexachloro-1,3-butadiene	87-68-3	ND	7.80E-02	7.80E-02	2.00E-04	2.20E-05	7.00E-04
Hexachlorocyclopentadiene	77-47-4	ND	ND	ND	7.00E-03	ND	7.00E-05
Hexachloroethane	67-72-1	ND	1.40E-02	1.40E-02	1.00E-03	4.00E-06	3.50E-03
Hexachlorophene	70-30-4	ND	ND	ND	3.00E-04	ND	1.10E-03
Hexachloropropene	1888-71-7	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	ND	7.30E-01	7.30E-01	ND	2.10E-04	ND
Isophorone	78-59-1	ND	9.50E-04	9.50E-04	2.00E-01	2.70E-07	7.00E-01
Isosafrole	120-58-1	ND	ND	ND	ND	ND	ND
Methapyrilene	91-80-5	ND	ND	ND	ND	ND	ND
Methoxychlor	72-43-5	ND	ND	ND	5.00E-03	ND	1.80E-02
3-Methylcholanthrene	56-49-5	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Semi-volatile Organic Compounds (Continued)								
Methylcyclohexane	108-87-2	98.19[c]	146.85[c]	ND	ND	ND	8.79E-02	1.02E-06
Methyl methanesulfonate	66-27-3	110.13[d]	293.15[c]	ND	2.00E+05[f]	ND	8.14E-02	9.43E-07
2-Methylnapthalene	91-57-6	142.2[f]	307.73[f]	ND	26[f]	4.99E-04[f]	6.86E-02	7.94E-07
2-Methyl-5-nitroaniline [b]	99-55-8	152.15[c]	380.65[c]	ND	ND	ND	6.56E-02	7.59E-07
2-Methylphenol (o-Cresol)	95-48-7	108.13	303.1	4.16E-04	2.77E+04	1.62E-06	6.88E-02	9.41E-06
3-Methylphenol (m-Cresol)	108-39-4	108.13	284.1	1.90E-04	2.30E+04	8.93E-07	6.93E-02	9.30E-06
4-Methylphenol (p-Cresol)	106-44-5	108.13	308.6	1.70E-04	2.30E+04	7.99E-07	6.93E-02	9.30E-06
Naphthalene	91-20-3	128.16	353.3	1.17E-04	3.11E+01	4.82E-04	5.26E-02	8.92E-06
1,4-Naphthoquinone	130-15-4	158.15[d]	399.15[d]	ND	ND	ND	6.39E-02	7.40E-07
1-Napthylamine	134-32-7	143.2[d]	323.15[d]	ND	1.70E+03[f]	1.27E-10[f]	6.83E-02	7.91E-07
2-Napthylamine	91-59-8	143.2[d]	386.15[d]	ND	5.86E+02[f]	2.01E-09[f]	6.83E-02	7.91E-07
5-Nitroacenaphthene	602-87-9	199.21[c]	375.15[c]	ND	ND	ND	5.47E-02	6.34E-07
2-Nitroaniline	88-74-4	138.12	342.1	1.07E-05	1.26E+03	1.17E-06	4.29E-02	9.81E-06
3-Nitroaniline	99-09-2	138.12	387.1	1.07E-05	8.90E+02	1.65E-06	7.11E-02	8.23E-06
4-Nitroaniline	100-01-6	138.12	419.1	ND	1.07E-05	1.65E-06	4.31E-02	9.75E-06
Nitrobenzene	98-95-3	123.11	279.1	3.21E-04	1.92E+03	2.06E-05	5.43E-02	9.43E-06
2-Nitrophenol	88-75-5	139.11	317.1	2.63E-04	2.50E+03	1.46E-05	4.44E-02	9.19E-06
4-Nitrophenol	100-02-7	139.11	386.1	1.32E-06	2.50E+04	7.32E-09	4.30E-02	9.61E-06
4-Nitroquinoline 1-oxide	56-57-5	190.16[f]	427.15[f]	ND	ND	ND	5.65E-02	6.54E-07
N-Nitroso-di-n-butylamine	924-16-3	158.2	ND	3.80E-04	1.10E+03	5.47E-05	6.50E-02	7.52E-06
N-Nitrosodiethylamine (ethylamine)	55-18-5	102.14[d]	ND	ND	ND	ND	8.56E-02	9.91E-07
N-Nitrosodimethylamine	62-75-9	74.1[d]	ND	ND	ND	1.43E-01[f]	1.06E-01	1.23E-06
N-Nitrosodiphenylamine	86-30-6	198.23	339.6	1.32E-04[g]	3.74E+01[g]	6.99E-04[g]	3.12E-02	6.35E-06
N-Nitroso-di-n-propylamine	621-64-7	130.19	ND	4.63E-03[g]	1.46E+04	4.13E-04[g]	5.67E-02	7.75E-06
N-Nitrosomethylethylamine (NMEA)	10595-95-6	88.11[f]	ND	ND	ND	ND	9.45E-02	1.09E-06
N-Nitrosomorpholine	59-89-2	116.11[d]	302.15[d]	ND	ND	ND	7.86E-02	9.10E-07
N-Nitrosopiperidine	100-75-4	114.15[f]	ND	ND	ND	ND	7.95E-02	9.20E-07
N-Nitrosopyrrolidine	930-55-2	100.11[d]	ND	ND	ND	ND	8.68E-02	1.00E-06

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Semi-volatile Organic Compounds (Continued)								
Methylcyclohexane	108-87-2	ND	ND	ND	ND	ND	ND	ND
Methyl methanesulfonate	66-27-3	ND	ND	ND	ND	ND	ND	ND
2-Methylnapthalene	91-57-6	7244.36[i]	3.86	4468.89	44.69	335.17	178.76	ND
2-Methyl-5-nitroaniline [b]	99-55-8	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol (o-Cresol)	95-48-7	105	2.02	53.40	0.53	4.00	2.14	3.61E+01
3-Methylphenol (m-Cresol)	108-39-4	91	1.96	47.80	0.48	3.58	1.91	8.72E+00
4-Methylphenol (p-Cresol)	106-44-5	87	1.94	46.10	0.46	3.46	1.84	3.79E+02
Naphthalene	91-20-3	2360	3.37	1190.00	11.90	89.30	47.60	5.27E+00
1,4-Naphthoquinone	130-15-4	60[f]	1.78	34.51	0.35	2.59	1.38	ND
1-Napthylamine	134-32-7	173.78[i]	2.24	79.10	0.79	5.93	3.16	ND
2-Napthylamine	91-59-8	190.55[i]	2.28	85.00	0.85	6.37	3.40	ND
5-Nitroacenaphthene	602-87-9	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	88-74-4	71	1.85	39.3[g]	0.393[g]	2.95[g]	1.57[g]	0.00E+00
3-Nitroaniline	99-09-2	23	1.37	16.6[g]	0.166[g]	1.24[g]	0.662[g]	0.00E+00
4-Nitroaniline	100-01-6	25	1.39	17.2[g]	0.172[g]	1.29[g]	0.689[g]	0.00E+00
Nitrobenzene	98-95-3	68	1.83	119.00	1.19	8.93	47600.00	1.28E+00
2-Nitrophenol	88-75-5	62	1.79	35.3[g]	0.353[g]	2.65[g]	1.41[g]	9.03E+00
4-Nitrophenol	100-02-7	81	1.91	43.7[g]	0.437[g]	3.28[g]	1.79[g]	2.09E+02
4-Nitroquinoline 1-oxide	56-57-5	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-butylamine	924-16-3	257	2.41	107.00	107.00	8.05	4.29	7.44E+00
N-Nitrosodiethylamine (ethylamine)	55-18-5	3.02[i]	0.48	3.35	0.03	0.25	0.13	ND
N-Nitrosodimethylamine	62-75-9	0.27[i]	-0.57	0.51	0.01	0.04	0.02	ND
N-Nitrosodiphenylamine	86-30-6	1060	3.03	327.00	3.27	24.50	13.10	7.44E+00
N-Nitroso-di-n-propylamine	621-64-7	24	1.38	17.00	0.17	1.28	0.68	1.41E+00
N-Nitrosomethylethylamine (NMEA)	10595-95-6	0.76[i]	-0.12	1.14	0.01	0.09	0.05	ND
N-Nitrosomorpholine	59-89-2	ND	ND	ND	ND	ND	ND	ND
N-Nitrosopiperidine	100-75-4	4.27[i]	0.63	4.39	0.04	0.33	0.18	ND
N-Nitrosopyrrolidine	930-55-2	0.66[i]	-0.19	1.01	0.01	0.08	0.04	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Semi-volatile Organic Compounds (Continued)									
Methylcyclohexane	108-87-2	ND	ND	ND	ND	ND	ND	ND	ND
Methyl methanesulfonate	66-27-3	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnapthalene	91-57-6	ND	2.24E+02	5.02E+00	2.27E-01	2.27E-01	ND	ND	ND
2-Methyl-5-nitroaniline [b]	99-55-8	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol (o-Cresol)	95-48-7	0.999999	1.47E+01	2.75E+01	2.63E+00	2.63E+00	4.76E+04	4.89E+00	4.89E+00
3-Methylphenol (m-Cresol)	108-39-4	0.999997	1.38E+01	2.89E+01	2.86E+00	2.86E+00	7.41E+04	7.64E+00	7.64E+00
4-Methylphenol (p-Cresol)	106-44-5	0.999997	1.35E+01	2.94E+01	2.93E+00	2.93E+00	7.90E+04	8.13E+00	8.13E+00
Naphthalene	91-20-3	0.999999	9.81E+01	8.23E+00	4.35E-01	4.35E-02	4.40E+03	4.52E-01	4.52E-01
1,4-Naphthoquinone	130-15-4	ND	1.17E+01	3.40E+01	3.63E+00	3.63E+00	ND	ND	ND
1-Napthylamine	134-32-7	ND	1.86E+01	2.36E+01	1.96E+00	1.96E+00	ND	ND	ND
2-Napthylamine	91-59-8	ND	1.95E+01	2.30E+01	1.86E+00	1.88E+00	ND	ND	ND
5-Nitroacenaphthene	602-87-9	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	88-74-4	0.999980	1.25E+01	31.8[g]	3.30E+00	3.30E+00	4.33E+04	4.47E+00	4.47E+00
3-Nitroaniline	99-09-2	0.999993	8.94E+00	54[g]	6.26E+00	6.26E+00	9.44E+03	9.71E-01	9.71E-01
4-Nitroaniline	100-01-6	0.999944	9.04E+00	52.5[g]	6.08E+00	6.08E+00	9.96E+03	1.02E+00	1.02E+00
Nitrobenzene	98-95-3	0.999998	1.23E+01	1.03E+01	3.38E+00	3.38E+00	2.36E+03	2.43E-01	2.43E-01
2-Nitrophenol	88-75-5	0.999999	1.19E+01	33.6[g]	3.57E+00	3.57E+00	3.00E+03	3.08E-01	3.08E-01
4-Nitrophenol	100-02-7	0.999939	1.32E+01	30.1[g]	3.05E+00	3.05E+00	8.02E+06	8.26E+02	8.26E+02
4-Nitroquinoline 1-oxide	56-57-5	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-butylamine	924-16-3	1.00	2.30E+01	2.14E+01	1.57E+00	1.57E+00	3.66E+03	3.77E-01	3.77E-01
N-Nitrosodiethylamine (ethylamine)	55-18-5	ND	6.85E+00	2.04E+02	2.04E+01	2.04E+01	ND	ND	ND
N-Nitrosodimethylamine	62-75-9	ND	6.39E+00	1.26E+03	8.27E+01	8.27E+01	ND	ND	ND
N-Nitrosodiphenylamine	86-30-6	1.00[g]	5.61E+01	1.71E+01	6.89E-01	6.89E-01	ND	1.34E-01[g]	1.34E-01[g]
N-Nitroso-di-n-propylamine	621-64-7	0.999902	8.99E+00	5.29E+01	6.17E+00	6.17E+00	ND	4.00E-02[g]	4.00E-02[g]
N-Nitrosomethylethylamine (NMEA)	10595-95-6	ND	6.50E+00	5.69E+02	4.54E+01	4.54E+01	ND	ND	ND
N-Nitrosomorpholine	59-89-2	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosopiperidine	100-75-4	ND	7.02E+00	1.60E+02	1.67E+01	1.67E+01	ND	ND	ND
N-Nitrosopyrrolidine	930-55-2	ND	6.47E+00	6.43E+02	4.99E+01	4.99E+01	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Semi-volatile Organic Compounds (Continued)									
Methylcyclohexane	108-87-2	ND	ND	ND	ND	ND	ND	ND	ND
Methyl methanesulfonate	66-27-3	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnapthalene	91-57-6	5.75E-05	1.82E-04	1.20E-03	5.75E-02	1.46E-04	5.05E+02	ND	ND
2-Methyl-5-nitroaniline [b]	99-55-8	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol (o-Cresol)	95-48-7	8.34E-07	2.64E-06	3.19E-06	8.34E-04	2.08E-06	2.02E+01	ND	ND
3-Methylphenol (m-Cresol)	108-39-4	7.23E-07	2.29E-06	2.77E-06	7.23E-04	1.86E-06	1.81E+01	ND	ND
4-Methylphenol (p-Cresol)	106-44-5	6.91E-07	2.19E-06	2.65E-06	6.91E-04	1.73E-06	1.75E+01	ND	ND
Naphthalene	91-20-3	1.87E-05	5.92E-05	7.16E-05	1.87E-02	4.67E-05	2.15E+02	ND	ND
1,4-Naphthoquinone	130-15-4	4.77E-07	1.51E-06	9.90E-06	4.77E-04	1.21E-06	1.32E+01	ND	ND
1-Napthylamine	134-32-7	1.38E-06	4.37E-06	2.87E-05	1.38E-03	3.49E-06	2.97E+01	ND	ND
2-Napthylamine	91-59-8	1.51E-06	4.79E-06	3.14E-05	1.51E-03	3.83E-06	3.18E+01	ND	ND
5-Nitroacenaphthene	602-87-9	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	88-74-4	5.62E-07	1.78E-06	2.15E-06	5.62E-04	1.40E-06	1.50E+01	ND	ND
3-Nitroaniline	99-09-2	1.86E-07	5.88E-07	7.12E-07	1.86E-04	4.64E-07	5.92E+00	ND	ND
4-Nitroaniline	100-01-6	1.95E-07	6.18E-07	7.48E-07	1.95E-04	4.88E-07	5.00E+00	ND	ND
Nitrobenzene	98-95-3	5.40E-07	1.71E-06	2.07E-06	5.40E-04	1.35E-06	5.92E+00	ND	ND
2-Nitrophenol	88-75-5	4.90E-07	1.55E-06	1.88E-06	4.90E-04	1.22E-06	1.35E+01	ND	ND
4-Nitrophenol	100-02-7	6.46E-07	2.04E-06	2.47E-06	6.46E-04	1.61E-06	1.67E+01	ND	ND
4-Nitroquinoline 1-oxide	56-57-5	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-butylamine	924-16-3	2.04E-06	6.46E-06	7.82E-06	2.04E-03	5.10E-06	4.00E+01	ND	ND
N-Nitrosodiethylamine (ethylamine)	55-18-5	2.40E-08	7.59E-08	4.98E-07	2.40E-05	6.07E-08	1.36E+00	ND	ND
N-Nitrosodimethylamine	62-75-9	2.14E-09	6.76E-09	4.44E-08	2.14E-06	5.41E-09	2.17E-01	ND	ND
N-Nitrosodiphenylamine	86-30-6	8.45E-06	2.67E-05	3.24E-05	8.45E-03	2.11E-05	1.18E+02	ND	ND
N-Nitroso-di-n-propylamine	621-64-7	1.91E-07	6.03E-07	7.30E-07	1.91E-04	4.76E-07	6.59E+00	ND	ND
N-Nitrosomethylethylamine (NMEA)	10595-95-6	6.03E-09	1.91E-08	1.25E-07	6.03E-06	1.52E-08	4.77E-01	ND	ND
N-Nitrosomorpholine	59-89-2	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosopiperidine	100-75-4	3.39E-08	1.07E-07	7.04E-07	3.39E-05	8.57E-08	1.77E+00	ND	ND
N-Nitrosopyrrolidine	930-55-2	5.13E-09	1.62E-08	1.07E-07	5.13E-06	1.30E-08	4.22E-01	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Semi-volatile Organic Compounds (Continued)							
Methylcyclohexane	108-87-2	ND	ND	ND	ND	ND	ND
Methyl methanesulfonate	66-27-3	ND	ND	ND	ND	ND	ND
2-Methylnapthalene	91-57-6	ND	ND	ND	ND	ND	ND
2-Methyl-5-nitroaniline [b]	99-55-8	ND	3.30E-02 [m]	3.30E-02 [m]	ND	9.43E-06 [m]	ND
2-Methylphenol (o-Cresol)	95-48-7	ND	ND	ND	5.00E-02	ND	1.80E-01
3-Methylphenol (m-Cresol)	108-39-4	ND	ND	ND	5.00E-02	ND	1.80E-02 [g]
4-Methylphenol (p-Cresol)	106-44-5	ND	ND	ND	5.00E-03	ND	1.80E-02
Naphthalene	91-20-3	ND	ND	ND	2.0E-02 [g]	ND	3.0E-03 [g]
1,4-Naphthoquinone	130-15-4	ND	ND	ND	ND	ND	ND
1-Napthylamine	134-32-7	ND	ND	ND	ND	ND	ND
2-Napthylamine	91-59-8	ND	ND	ND	ND	ND	ND
5-Nitroacenaphthene	602-87-9	ND	ND	ND	ND	ND	ND
2-Nitroaniline	88-74-4	ND	ND	ND	6.00E-05	ND	2.00E-04
3-Nitroaniline	99-09-2	ND	ND	ND	3.00E-03	ND	1.05E-02
4-Nitroaniline	100-01-6	ND	ND	ND	3.00E-03	ND	1.05E-02
Nitrobenzene	98-95-3	ND	ND	ND	5.00E-04	ND	2.00E-03
2-Nitrophenol	88-75-5	ND	ND	ND	ND	ND	ND
4-Nitrophenol	100-02-7	ND	ND	ND	6.20E-02	ND	2.17E-01
4-Nitroquinoline 1-oxide	56-57-5	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-butylamine	924-16-3	ND	5.40E+00	5.40E+00	ND	1.60E-03	ND
N-Nitrosodiethylamine (ethylamine)	55-18-5	ND	1.50E+02 [n]	1.50E+02 [n]	ND	4.30E-02 [n]	ND
N-Nitrosodimethylamine	62-75-9	ND	5.10E+01 [n]	5.10E+01 [n]	ND	1.40E-02 [n]	ND
N-Nitrosodiphenylamine	86-30-6	ND	4.90E-03	4.90E-03	ND	1.40E-06	ND
N-Nitroso-di-n-propylamine	621-64-7	ND	7.00E+00	7.00E+00	ND	2.00E-03	ND
N-Nitrosomethylethylamine (NMEA)	10595-95-6	ND	2.20E+01 [n]	2.20E+01 [n]	ND	6.3E-03 [n]	ND
N-Nitrosomorpholine	59-89-2	ND	ND	ND	ND	ND	ND
N-Nitrosopiperidine	100-75-4	ND	ND	ND	ND	ND	ND
N-Nitrosopyrrolidine	930-55-2	ND	2.1 [m]	2.1 [m]	ND	6.00E-04 [m]	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Semi-volatile Organic Compounds (Continued)								
5-Nitro-o-toluidine [b]	99-55-8	152.15[f]	380.65[f]	ND	ND	ND	6.56E-02	7.59E-07
Pentachlorobenzene	608-93-5	250.34	358.1	3.10E-06	3.20E-02	2.43E-02	1.86E-02	7.34E-06
Pentachloroethane	76-01-7	202.3[d]	244.15[d]	ND	5.00E+02[f]	1.815E-03[f]	5.42E-02	6.27E-07
Pentachloronitrobenzene (PCNB)	82-68-8	295.36	417.1	3.10E-06	3.20E-02	2.86E-02	1.87E-02	5.00E-06
Pentachlorophenol	87-86-5	266.35	463	7.11E-07	1.34E+01	1.41E-05	1.56E-02	8.01E-06
Phenacetin	62-44-2	179.21[d]	408.15[d]	ND	7.60E+02[f]	ND	5.87E-02	6.80E-07
Phenanthrene	85-01-8	178.22	371.1	1.35E-03	1.28E+00	1.88E-01	3.33E-02	7.47E-06
Phenol	108-95-2	94.11	314	5.74E-04	9.08E+04	5.95E-07	8.27E-02	1.03E-05
para-Phenylenediamine	106-50-3	108.14[d]	420.15[d]	ND	3.80E+04[f]	ND	8.23E-02	9.53E-07
2-Picoline	109-06-8	93.12[d]	203.15[d]	ND	ND	2.86E-05[f]	8.80E-02	1.05E-06
Pronamide	23950-58-5	256.13	428.1	5.30E-07	1.50E+01	9.05E-06	4.71E-02	5.45E-06
Pyrene	129-00-0	202.24	429.1	5.59E-09[g]	1.37E-01[g]	8.25E-06[g]	2.72E-02	7.14E-06
Pyridine	110-86-1	79.1	231.5	2.60E-02	3.00E+02	6.86E-03	1.10E-01	1.08E-05
Quinoline	91-22-5	129.15[d]	258.15[d]	1.30E-04[e]	6.10E+03[e]	2.70E-06[e]	5.50E-02[e]	8.30E-06[e]
Safrole	94-59-1	162.18	284.1	1.10E-04	1.50E+03	1.19E-05	4.06E-02	7.16E-06
1,2,4,5-Tetrachlorobenzene	95-94-3	215.89	411.1	7.10E-06	1.30E+00	1.18E-03	2.11E-02	8.75E-06
2,3,4,6-Tetrachlorophenol	58-90-2	231.89	343	6.60E-06	1.00E+02	1.53E-05	2.55E-02	5.78E-06
p-Toludine	106-49-0	107.2[d]	318.15[d]	2.30E-04[e]	7.80E+02[e]	ND	7.00E-02[e]	9.40E-06[e]
2-Toluidine	95-53-4	107.15	258.4	3.94E-04	1.74E+04	2.43E-06	7.14E-02	9.12E-06
Tributylamine	102-82-9	185.34[d]	203.15[c]	ND	ND	ND	5.74E-02	6.65E-07
1,2,4-Trichlorobenzene	120-82-1	181.46	290.1	4.42E-04	3.07E+01	2.61E-03	3.00E-02	8.23E-06
2,4,5-Trichlorophenol	95-95-4	197.46	340.1	2.15E-05	7.53E+02	5.64E-06	2.91E-02	7.03E-06
2,4,6-Trichlorophenol	88-06-2	197.46	342.1	1.55E-05	7.53E+02	4.06E-06	2.62E-02	8.08E-06
O,O,O-Triethylphosphorothioate	126-68-1	198.22[f]	ND	ND	ND	ND	5.49E-02	6.36E-07
1,3,5-Trinitrobenzene	99-35-4	213.11	395.6	1.30E-07	3.20E+02	8.66E-08	2.84E-02	6.08E-06
N,N'-Diisopropylcarbodiimide	693-13-0	126.2[c]	ND	ND	ND	ND	7.43E-02	8.60E-07

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Semi-volatile Organic Compounds (Continued)								
5-Nitro-o-toluidine [b]	99-55-8	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	608-93-5	122000	5.09	32100.00	321.00	2410.00	1290.00	7.33E-01
Pentachloroethane	76-01-7	1659.59[i]	3.22	459.83	4.60	34.49	ND	ND
Pentachloronitrobenzene (PCNB)	82-68-8	43700	4.64	5890.00	58.90	442.00	236.00	3.62E-01
Pentachlorophenol	87-86-5	120000	5.08	12964.67	129.65	972.35	518.59	1.42E+00
Phenacetin	62-44-2	38.02[f]	1.58	24.18	0.24	1.81	0.97	ND
Phenanthrene	85-01-8	35500	4.55	20900[g]	209[g]	1570[g]	835[g]	1.26E+00
Phenol	108-95-2	30	1.48	20.10	0.22	1.65	0.88	2.53E+01
para-Phenylenediamine	106-50-3	0.55[f]	-0.26	0.89	0.01	0.07	0.04	ND
2-Picoline	109-06-8	11.48[f]	1.06	9.50	0.10	0.71	0.38	ND
Pronamide	23950-58-5	3240	3.51	774.00	7.74	58.10	31.00	0.00E+00
Pyrene	129-00-0	100000	5.00	68000.00	680.00	5100.00	2720.00	1.33E-01
Pyridine	110-86-1	5	0.67	4.72	0.05	0.35	0.19	3.61E+01
Quinoline	91-22-5	107.15[i]	2.03	100[e]	1.00	7.50	4.00	ND
Safrole	94-59-1	457	2.66	168.00	168.00	12.60	6.73	9.03E+00
1,2,4,5-Tetrachlorobenzene	95-94-3	43600	4.64	5890.00	58.90	442.00	236.00	1.41E+00
2,3,4,6-Tetrachlorophenol	58-90-2	20000	4.30	3204.82	2.49	18.69	9.97	1.41E+00
p-Toludine	106-49-0	25.12[i]	1.40	24[e]	0.24	1.80	0.96	ND
2-Toluidine	95-53-4	22	1.34	15.70	0.16	1.18	0.63	3.61E+01
Tributylamine	102-82-9	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	120-82-1	9730	3.99	1660.00	16.60	124.00	66.40	1.41E+00
2,4,5-Trichlorophenol	95-95-4	7410	3.87	1477.26	11.30	84.50	45.10	3.67E-01
2,4,6-Trichlorophenol	88-06-2	5150	3.71	1112.27	2.26	17.00	9.05	3.61E+00
O,O,O-Triethylphosphorothioate	126-68-1	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trinitrobenzene	99-35-4	15	1.18	11.80	0.12	0.88	0.47	0.00E+00
N,N'-Diisopropylcarbodiimide	693-13-0	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Semi-volatile Organic Compounds (Continued)									
5-Nitro-o-toluidine [b]	99-55-8	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	608-93-5	0.999951	1.93E+03	5.99E+00	4.44E-02	4.44E-02	5.83E+03	6.04E-01	6.04E-01
Pentachloroethane	76-01-7	ND	7.64E+01	1.66E+01	5.33E-01	5.33E-01	ND	ND	ND
Pentachloronitrobenzene (PCNB)	82-68-8	0.999987	8.75E+02	1.49E+01	8.06E-02	8.06E-02	1.66E+03	1.71E-01	1.71E-01
Pentachlorophenol	87-86-5	0.999980	1.90E+03	3.77E+02	4.48E-02	4.48E-02	9.88E+06	1.02E+03	1.02E+03
Phenacetin	62-44-2	ND	1.01E+01	4.19E+01	4.73E+00	4.73E+00	ND	ND	ND
Phenanthrene	85-01-8	1.00	7.47E+02	3.58[g]	9.08E-02	9.08E-02	2.02E+02	2.08E-02	2.08E-02
Phenol	108-95-2	0.999999	9.50E+00	4.32E+01	5.42E+00	5.42E+00	3.41E+04	3.52E+00	3.52E+00
para-Phenylenediamine	106-50-3	ND	6.45E+00	7.27E+02	5.47E+01	5.47E+01	ND	ND	ND
2-Picoline	109-06-8	ND	7.83E+00	8.24E+01	9.45E+00	9.45E+00	ND	ND	ND
Pronamide	23950-58-5	0.999942	1.23E+02	1.59E+01	3.62E-01	3.62E-01	3.28E+05	3.38E+01	3.38E+01
Pyrene	129-00-0	0.994635[g]	1.66E+03	2.44E+00	4.98E-02	4.98E-02	ND	1440[g]	1440[g]
Pyridine	110-86-1	1.00	7.07E+00	1.50E+02	1.59E+01	1.59E+01	4.09E-01	4.22E-05	4.22E-05
Quinoline	91-22-5	1.00[e]	2[e]	ND	2.5[e]	2.5[e]	ND	8[e]	8[e]
Safrole	94-59-1	0.999995	3.23E+01	1.92E+01	1.12E+00	1.12E+00	3.10E+04	3.20E+00	3.20E+00
1,2,4,5-Tetrachlorobenzene	95-94-3	0.999994	8.75E+02	1.49E+01	8.06E-02	8.06E-02	4.01E+04	4.14E+00	4.14E+00
2,3,4,6-Tetrachlorophenol	58-90-2	0.999968	4.83E+02	1.94E+02	1.27E-01	1.27E-01	1.35E+06	1.39E+02	1.39E+02
p-Toludine	106-49-0	1.00[e]	1.2[e]	ND	6[e]	6[e]	ND	ND	ND
2-Toluidine	95-53-4	0.999998	8.81E+00	5.61E+01	6.51E+00	6.51E+00	5.98E+03	6.16E-01	6.16E-01
Tributylamine	102-82-9	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	120-82-1	0.999999	2.80E+02	1.69E+01	1.92E-01	1.92E-01	3.67E+03	3.78E-01	3.78E-01
2,4,5-Trichlorophenol	95-95-4	0.999989	2.28E+02	2.02E+01	2.24E-01	2.24E-01	1.27E+06	1.31E+02	1.31E+02
2,4,6-Trichlorophenol	88-06-2	0.999986	1.74E+02	7.69E+01	2.77E-01	2.77E-01	1.20E+06	1.23E+02	1.23E+02
O,O,O-Triethylphosphorothioate	126-68-1	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trinitrobenzene	99-35-4	0.999504	8.19E+00	6.95E+01	8.05E+00	8.05E+00	1.13E+05	1.17E+01	1.17E+01
N,N'-Diisopropylcarbodiimide	693-13-0	ND	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Semi-volatile Organic Compounds (Continued)									
5-Nitro-o-toluidine [b]	99-55-8	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	608-93-5	9.72E-04	3.07E-03	3.72E-03	9.72E-01	2.43E-03	ND	46200[g]	ND
Pentachloroethane	76-01-7	1.32E-05	4.17E-05	2.74E-04	1.32E-02	3.33E-05	1.65E+02	ND	ND
Pentachloronitrobenzene (PCNB)	82-68-8	3.47E-04	1.10E-03	1.33E-03	3.47E-01	8.66E-04	ND	4.65E+02	ND
Pentachlorophenol	87-86-5	9.55E-04	3.02E-03	3.66E-03	9.55E-01	2.39E-03	ND	3.97E+02	ND
Phenacetin	62-44-2	3.02E-07	9.55E-07	6.27E-06	3.02E-04	7.64E-07	9.35E+00	ND	ND
Phenanthrene	85-01-8	2.82E-04	8.92E-04	1.08E-03	2.82E-01	7.04E-04	ND	3.30E+03	ND
Phenol	108-95-2	2.38E-07	7.54E-07	9.12E-07	2.38E-04	5.95E-07	7.81E+00	ND	ND
para-Phenylenediamine	106-50-3	4.36E-09	1.38E-08	9.07E-08	4.36E-06	1.10E-08	3.74E-01	ND	ND
2-Picoline	109-06-8	9.12E-08	2.88E-07	1.89E-06	9.12E-05	2.31E-07	3.76E+00	ND	ND
Pronamide	23950-58-5	2.57E-05	8.13E-05	9.84E-05	2.57E-02	6.42E-05	2.74E+02	ND	ND
Pyrene	129-00-0	7.98E-04	2.52E-03	3.06E-03	7.98E-01	1.99E-03	ND	1.19E+04	ND
Pyridine	110-86-1	3.72E-08	1.18E-07	1.42E-07	3.72E-05	9.28E-08	1.90E+00	ND	ND
Quinoline	91-22-5	1.10E-04[e]	3.50E-04[e]	4.20E-04[e]	8.51E-04	2.80E-04	460[e]	ND	ND
Safrole	94-59-1	3.63E-06	1.15E-05	1.39E-05	3.63E-03	9.06E-06	6.19E+01	ND	ND
1,2,4,5-Tetrachlorobenzene	95-94-3	3.47E-04	1.10E-03	1.33E-03	3.47E-01	8.66E-04	ND	4.30E+03	ND
2,3,4,6-Tetrachlorophenol	58-90-2	1.59E-04	5.02E-04	6.08E-04	1.59E-01	3.97E-04	ND	1.63E+03	ND
p-Toludine	106-49-0	2.00E-07[e]	6.30E-07[e]	7.60E-07[e]	2.00E-04	5.04E-07	3.3[e]	ND	ND
2-Toluidine	95-53-4	1.74E-07	5.50E-07	6.65E-07	1.74E-04	4.34E-07	6.14E+00	ND	ND
Tributylamine	102-82-9	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	120-82-1	7.73E-05	2.45E-04	2.96E-04	7.73E-02	1.93E-04	6.33E+02	ND	ND
2,4,5-Trichlorophenol	95-95-4	5.89E-05	1.86E-04	2.25E-04	5.89E-02	1.47E-04	5.14E+02	ND	ND
2,4,6-Trichlorophenol	88-06-2	4.09E-05	1.29E-04	1.57E-04	4.09E-02	1.02E-04	3.90E+02	ND	ND
O,O,O-Triethylphosphorothioate	126-68-1	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trinitrobenzene	99-35-4	1.20E-07	3.80E-07	4.60E-07	1.20E-04	3.00E-07	4.64E+00	ND	ND
N,N'-Diisopropylcarbodiimide	693-13-0	ND	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Semi-volatile Organic Compounds (Continued)							
5-Nitro-o-toluidine [b]	99-55-8	ND	3.30E-02 [m]	3.30E-02 [m]	ND	9.43E-06 [m]	ND
Pentachlorobenzene	608-93-5	ND	ND	ND	8.00E-04	ND	2.80E-03
Pentachloroethane	76-01-7	ND	ND	ND	ND	ND	ND
Pentachloronitrobenzene (PCNB)	82-68-8	ND	2.60E-01	2.60E-01	3.03E-03	7.40E-05	1.10E-02
Pentachlorophenol	87-86-5	ND	1.20E-01	1.20E-01	3.00E-02	3.40E-05	1.10E-01
Phenacetin	62-44-2	ND	ND	ND	ND	ND	ND
Phenanthrene	85-01-8	ND	ND	ND	ND	ND	ND
Phenol	108-95-2	ND	ND	ND	6.00E-01	ND	2.10E+00
para-Phenylenediamine	106-50-3	ND	ND	ND	0.19 [o]	ND	6.65E-01
2-Picoline	109-06-8	ND	ND	ND	ND	ND	ND
Pronamide	23950-58-5	ND	ND	ND	7.50E-02	ND	2.60E-01
Pyrene	129-00-0	ND	ND	ND	3.00E-02	ND	1.10E-01
Pyridine	110-86-1	ND	ND	ND	1.00E-03	ND	3.50E-03
Quinoline	91-22-5	ND	12 [m]	12 [m]	ND	3.43E-03 [m]	ND
Safrole	94-59-1	ND	1.80E-01	1.80E-01	ND	5.10E-05	ND
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	ND	ND	3.00E-04	ND	1.10E-03
2,3,4,6-Tetrachlorophenol	58-90-2	ND	ND	ND	3.00E-02	ND	1.10E-01
p-Toludine	106-49-0	ND	0.19 [m]	0.19 [m]	ND	5.43E-05 [m]	ND
2-Toluidine	95-53-4	ND	2.40E-01	2.40E-01	ND	6.90E-05 [g]	ND
Tributylamine	102-82-9	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	120-82-1	ND	ND	ND	1.00E-02	ND	2.00E-01
2,4,5-Trichlorophenol	95-95-4	ND	ND	ND	1.00E-01	ND	3.50E-01
2,4,6-Trichlorophenol	88-06-2	ND	1.10E-02	ND	ND	3.10E-06	ND
O,O,O-Triethylphosphorothioate	126-68-1	ND	ND	ND	ND	ND	ND
1,3,5-Trinitrobenzene	99-35-4	ND	ND	ND	3.00E-02	ND	1.10E-01
N,N'-Diisopropylcarbodiimide	693-13-0	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Miscellaneous Analytes								
GB (Sarin)	107-44-8	140.09[d]	216.15[d]	2.94E+00[h]	ND	5.34E-07[h]	1.00E-02[h]	8.20E-06[h]
VX	50782-69-9	267.4[h]	ND	7.00E-04[h]	3.00E+04[h]	3.50E-09[h]	6.20E-02[h]	5.30E-06[h]
HD	505-60-2	159.08[h]	ND	1.10E-01[h]	9.20E+02[h]	2.10E-04[h]	9.90E-02[h]	8.40E-06[h]
HF	7664-39-3	20[d]	189.6[d]	ND	ND	ND	2.55E-01	2.96E-06
HCl	7647-01-0	36.47	158.9	4.60E+01	ND	ND	1.73E-01	2.00E-05

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Miscellaneous Analytes								
GB (Sarin)	107-44-8	0.15[h]	-0.82	34.6[h]	0.35	2.60	1.38	ND
VX	50782-69-9	2.09[h]	0.32	327[h]	3.27	24.53	13.08	ND
HD	505-60-2	ND	ND	133[h]	1.33	9.98	5.32	ND
HF	7664-39-3	ND	ND	ND	ND	ND	ND	ND
HCl	7647-01-0	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Miscellaneous Analytes									
GB (Sarin)	107-44-8		6.36E+00	1.84E+01	1.16E+02	1.16E+02	ND	ND	ND
VX	50782-69-9		6.72E+00	2.05E+00	2.53E+01	2.53E+01	ND	ND	ND
HD	505-60-2		ND	ND	ND	ND	ND	ND	ND
HF	7664-39-3	ND	ND	ND	ND	ND	ND	ND	ND
HCl	7647-01-0	1.00	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Miscellaneous Analytes									
GB (Sarin)	107-44-8	1.19E-09	3.77E-09	2.48E-08	1.19E-06	3.01E-09	1.39E-01	ND	ND
VX	50782-69-9	1.66E-08	5.25E-08	3.45E-07	1.66E-05	4.20E-08	1.03E+00	ND	ND
HD	505-60-2	ND	ND	ND	ND	ND	ND	ND	ND
HF	7664-39-3	ND	ND	ND	ND	ND	ND	ND	ND
HCl	7647-01-0	ND	ND	ND	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Miscellaneous Analytes							
GB (Sarin)	107-44-8	ND	ND	ND	2.0E-05[h]	ND	3.15E-06[h]
VX	50782-69-9	ND	ND	ND	4.0E-05[h]	ND	3.15E-07[h]
HD	505-60-2	ND	7.7[h]	3.00E+02	7.0E-06[h]	8.30E-03[h]	1.05E-04[h]
HF	7664-39-3	ND	ND	ND	0.06[h]	ND	0.21[h]
HCl	7647-01-0	ND	ND	ND	5.70E-03	ND	2.00E-02

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
Dioxins and Furans								
2,3,7,8-TCDD	1746-01-6	321.98	578.1	9.74E-13[g]	1.93E-05[g]	1.60E-05	1.27E-02	6.81E-06
1,2,3,7,8-PeCDD	40321-76-4	356.42	513.1	1.25E-12	1.20E-04	2.60E-06	1.21E-02	4.38E-06
1,2,3,4,7,8-HxCDD	39227-28-6	390.87	546.1	1.33E-13	4.40E-06	1.20E-05	1.15E-02	4.12E-06
1,2,3,6,7,8-HxCDD	57653-85-7	390.87	558.1	4.74E-14	4.40E-06	1.20E-05	1.15E-02	4.12E-06
1,2,3,7,8,9-HxCDD	19408-74-3	390.87	516.1	6.45E-14	4.40E-06	1.20E-05	1.15E-02	4.12E-06
1,2,3,4,6,7,8-HpCDD	35822-46-9	425.31	537.1	4.22E-14	2.40E-06	7.50E-06	1.11E-02	3.89E-06
OCDD	3268-87-9	460.76	598.1	1.09E-15[g]	7.40E-08[g]	7.00E-09	1.06E-02	3.69E-07
2,3,7,8-TCDF	51207-31-9	305.98	500.1	1.17E-11[g]	4.19E-04	8.60E-06	1.79E-02	4.85E-06
1,2,3,7,8-PeCDF	57117-41-6	340.42	498.1	3.58E-12	2.40E-04	6.20E-06	1.70E-02	4.51E-06
2,3,4,7,8-PeCDF	57117-31-4	340.42	469.1	4.33E-12	2.36E-04	6.20E-06	1.70E-02	4.51E-06
1,2,3,4,7,8-HxCDF	70648-26-9	374.87	498.6	3.16E-13	8.25E-06	1.40E-05	1.62E-02	4.23E-06
1,2,3,6,7,8-HxCDF	57117-44-9	374.87	505.1	2.89E-13	1.77E-05	6.10E-06	1.62E-02	4.23E-06
2,3,4,6,7,8-HxCDF	60851-34-5	374.87	512.1	2.63E-13	1.30E-05	1.00E-05	1.62E-02	4.23E-06
1,2,3,7,8,9-HxCDF	72918-21-9	374.87	519.1	2.37E-13	1.30E-05	1.00E-05	1.62E-02	4.23E-06
1,2,3,4,6,7,8-HpCDF	67562-39-4	409.31	509.1	1.75E-13	1.35E-06	5.30E-05	1.55E-02	3.99E-06
1,2,3,4,7,8,9-HpCDF	55673-89-7	409.31	494.1	1.41E-13	1.40E-06	5.30E-05	1.55E-02	3.99E-06
OCDF	39001-02-0	444.76	531.1	4.93E-15	1.20E-06	1.90E-06	1.48E-02	3.78E-06

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
Dioxins and Furans								
2,3,7,8-TCDD	1746-01-6	4370000	6.64	2690000[g]	26900	202000	108000	6.93E-02[g]
1,2,3,7,8-PeCDD	40321-76-4	4370000	6.64	2690000	26900	202000	108000	0.00E+00
1,2,3,4,7,8-HxCDD	39227-28-6	61700000	7.79	38000000	380000	2850000	1520000	6.93E-02[g]
1,2,3,6,7,8-HxCDD	57653-85-7	17800000	7.25	11000000	110000	822000	439000	6.93E-02[g]
1,2,3,7,8,9-HxCDD	19408-74-3	17800000	7.25	11000000	110000	822000	439000	6.93E-02[g]
1,2,3,4,6,7,8-HpCDD	35822-46-9	158000000	8.20	97700000	977000	7330000	3910000	6.93E-02[g]
OCDD	3268-87-9	38900000	7.59	24000000	240000	1800000	960000	1.09E-01
2,3,7,8-TCDF	51207-31-9	3390000	6.53	2090000	20900	157000	83600	6.93E-02[g]
1,2,3,7,8-PeCDF	57117-41-6	6170000	6.79	3800000	38000	285000	152000	3.57E-01
2,3,4,7,8-PeCDF	57117-31-4	8320000	6.92	5130000	51300	385000	205000	3.57E-01
1,2,3,4,7,8-HxCDF	70648-26-9	17800000	7.25	11000000	110000	822000	439000	6.93E-02[g]
1,2,3,6,7,8-HxCDF	57117-44-9	17800000	7.25	11000000	110000	822000	439000	6.93E-02[g]
2,3,4,6,7,8-HxCDF	60851-34-5	17800000	7.25	11000000	110000	822000	439000	6.93E-02[g]
1,2,3,7,8,9-HxCDF	72918-21-9	17800000	7.25	11000000	110000	822000	439000	6.93E-02[g]
1,2,3,4,6,7,8-HpCDF	67562-39-4	83200000	7.92	51300000	513000	3850000	2050000	6.93E-02[g]
1,2,3,4,7,8,9-HpCDF	55673-89-7	83200000	7.92	51300000	513000	3850000	2050000	6.93E-02[g]
OCDF	39001-02-0	603000000	8.78	372000000	3720000	27900000	14900000	1.10E-01

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
Dioxins and Furans									
2,3,7,8-TCDD	1746-01-6	0.490154[g]	3.01E+04	1.12E+00	5.62E-03	5.62E-03	4.00E+08	65500[g]	65500[g]
1,2,3,7,8-PeCDD	40321-76-4	0.219208	3.01E+04	1.12E+00	5.62E-03	5.62E-03	2.46E+09	1.20E+05	1.20E+05
1,2,3,4,7,8-HxCDD	39227-28-6	0.059645	2.31E+05	6.09E-01	1.22E-03	1.22E-03	8.95E+09	520000[g]	520000[g]
1,2,3,6,7,8-HxCDD	57653-85-7	0.028857	8.88E+04	8.10E-01	2.50E-03	2.50E-03	2.38E+09	520000[g]	520000[g]
1,2,3,7,8,9-HxCDD	19408-74-3	0.015299	8.88E+04	8.10E-01	2.50E-03	2.50E-03	2.38E+09	520000[g]	520000[g]
1,2,3,4,6,7,8-HpCDD	35822-46-9	0.016157	4.79E+05	4.90E-01	7.05E-04	7.05E-04	3.90E+10	910000[g]	910000[g]
OCDD	3268-87-9	0.001694[g]	1.62E+05	6.77E-01	1.59E-03	1.59E-03	9.39E+12	8.60E+06	8.60E+06
2,3,7,8-TCDF	51207-31-9	0.663449[g]	2.48E+04	1.19E+00	6.51E-03	6.51E-03	5.68E+08	45700[g]	45700[g]
1,2,3,7,8-PeCDF	57117-41-6	0.364027	3.93E+04	1.03E+00	4.61E-03	4.61E-03	1.49E+09	4.60E+04	4.60E+04
2,3,4,7,8-PeCDF	57117-31-4	0.263427	4.95E+04	9.65E-01	3.87E-03	3.87E-03	2.05E+09	4.60E+04	4.60E+04
1,2,3,4,7,8-HxCDF	70648-26-9	0.048600	8.88E+04	8.10E-01	2.50E-03	2.50E-03	2.04E+09	162000[g]	162000[g]
1,2,3,6,7,8-HxCDF	57117-44-9	0.051501	8.88E+04	8.10E-01	2.50E-03	2.50E-03	4.69E+09	162000[g]	162000[g]
2,3,4,6,7,8-HxCDF	60851-34-5	0.054727	8.88E+04	8.10E-01	2.50E-03	2.50E-03	2.86E+09	162000[g]	162000[g]
1,2,3,7,8,9-HxCDF	72918-21-9	0.057593	8.88E+04	8.10E-01	2.50E-03	2.50E-03	2.86E+09	162000[g]	162000[g]
1,2,3,4,6,7,8-HpCDF	67562-39-4	0.034709	2.91E+05	5.68E-01	1.02E-03	1.02E-03	2.79E+09	830000[g]	830000[g]
1,2,3,4,7,8,9-HpCDF	55673-89-7	0.020142	2.91E+05	5.68E-01	1.02E-03	1.02E-03	2.79E+09	830000[g]	830000[g]
OCDF	39001-02-0	0.001671	1.34E+06	3.60E-01	3.26E-04	3.26E-04	6.41E+11	1.30E+06	1.30E+06

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
Dioxins and Furans									
2,3,7,8-TCDD	1746-01-6	1.00E-02	5.43E-02	6.57E-02	123[g]	151[g]	ND	ND	9.00E-02
1,2,3,7,8-PeCDD	40321-76-4	1.00E-02	5.43E-02	6.57E-02	4.71E-02	5.50E-02	ND	ND	9.00E-02
1,2,3,4,7,8-HxCDD	39227-28-6	6.00E-03	3.26E-02	3.94E-02	93.6[g]	83.2[g]	ND	ND	4.00E-02
1,2,3,6,7,8-HxCDD	57653-85-7	5.00E-03	2.71E-02	3.29E-02	76.4[g]	53.2[g]	ND	ND	4.00E-02
1,2,3,7,8,9-HxCDD	19408-74-3	5.00E-03	2.71E-02	3.29E-02	48.2[g]	28.6[g]	ND	ND	4.00E-02
1,2,3,4,6,7,8-HpCDD	35822-46-9	1.00E-03	5.40E-03	6.57E-03	52.7[g]	17.7[g]	ND	ND	5.00E-03
OCDD	3268-87-9	1.00E-03	5.43E-03	6.57E-03	9.90E-03	2.27[g]	ND	ND	1.00E-04
2,3,7,8-TCDF	51207-31-9	116[g]	1.63E-02	1.97E-02	74.5[g]	5.63E-02	ND	ND	9.00E-02
1,2,3,7,8-PeCDF	57117-41-6	2.00E-03	1.09E-02	1.31E-02	4.90E+01	ND	ND	ND	9.00E-02
2,3,4,7,8-PeCDF	57117-31-4	9.00E-03	4.89E-02	5.91E-02	5.61E-02	7.32E-02	ND	ND	9.00E-02
1,2,3,4,7,8-HxCDF	70648-26-9	7.00E-03	3.80E-02	4.60E-02	93.2[g]	71.8[g]	ND	ND	4.00E-02
1,2,3,6,7,8-HxCDF	57117-44-9	6.00E-03	3.26E-02	3.94E-02	93.6[g]	73.6[g]	ND	ND	4.00E-02
2,3,4,6,7,8-HxCDF	60851-34-5	5.00E-03	2.71E-02	3.29E-02	55.9[g]	35.9[g]	ND	ND	4.00E-02
1,2,3,7,8,9-HxCDF	72918-21-9	6.00E-03	3.26E-02	3.94E-02	1.41E+02	ND	ND	ND	4.00E-02
1,2,3,4,6,7,8-HpCDF	67562-39-4	1.00E-03	5.43E-03	6.57E-03	43.2[g]	14.5[g]	ND	ND	5.00E-03
1,2,3,4,7,8,9-HpCDF	55673-89-7	3.00E-03	1.63E-02	1.97E-02	5[g]	21.8[g]	ND	ND	5.00E-03
OCDF	39001-02-0	1.00E-03	5.43E-03	6.57E-03	7.92E-03	4.40E-04	ND	ND	1.00E-04

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
Dioxins and Furans							
2,3,7,8-TCDD	1746-01-6	1.00	1.50E+05	1.50E+05	ND	33[g]	ND
1,2,3,7,8-PeCDD	40321-76-4	0.50	ND	ND	ND	ND	ND
1,2,3,4,7,8-HxCDD	39227-28-6	0.10	ND	ND	ND	ND	ND
1,2,3,6,7,8-HxCDD	57653-85-7	0.10	ND	ND	ND	ND	ND
1,2,3,7,8,9-HxCDD	19408-74-3	0.10	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-HpCDD	35822-46-9	0.10	ND	ND	ND	ND	ND
OCDD	3268-87-9	0.00	ND	ND	ND	ND	ND
2,3,7,8-TCDF	51207-31-9	0.10	ND	ND	ND	ND	ND
1,2,3,7,8-PeCDF	57117-41-6	0.05	ND	ND	ND	ND	ND
2,3,4,7,8-PeCDF	57117-31-4	0.50	ND	ND	ND	ND	ND
1,2,3,4,7,8-HxCDF	70648-26-9	0.10	ND	ND	ND	ND	ND
1,2,3,6,7,8-HxCDF	57117-44-9	0.10	ND	ND	ND	ND	ND
2,3,4,6,7,8-HxCDF	60851-34-5	0.10	ND	ND	ND	ND	ND
1,2,3,7,8,9-HxCDF	72918-21-9	0.10	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-HpCDF	67562-39-4	0.01	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-HpCDF	55673-89-7	0.01	ND	ND	ND	ND	ND
OCDF	39001-02-0	0.00	ND	ND	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)
METALS								
Aluminum	7429-90-5	26.98[d]	933.15[d]	0.00E+00	0.00E+00	0.00E+00	2.09E-01	2.42E-06
Antimony	7440-36-0	121.75	903.1	0.00E+00	ND	0.00E+00	7.73E-02	8.96E-06
Arsenic	7440-38-2	74.92	1091	0.00E+00	0.00E+00	0.00E+00	1.07E-01	1.24E-05
Barium	7440-39-3	137.33	983	0.00E+00	0.00E+00	0.00E+00	7.14E-02	8.26E-06
Beryllium	7440-41-7	9.01	1560	0.00E+00	0.00E+00	0.00E+00	4.39E-01	5.08E-05
Boron	7440-42-8	10.81[d]	2473.15[d]	0.00E+00	0.00E+00	0.00E+00	3.86E-01	4.46E-06
Cadmium	7440-43-9	112.41	594.1	0.00E+00	0.00E+00	0.00E+00	8.16E-02	9.45E-06
Chromium	7440-47-3	52	2173.1	0.00E+00	0.00E+00	0.00E+00	1.01E-01	4.63E-05
Hexavalent Chromium	18540-29-9	52	2173	0.00E+00	0.00E+00	0.00E+00	1.36E-01	1.58E-05
Cobalt	7440-48-4	58.9[d]	1766.15[d]	0.00E+00	0.00E+00	0.00E+00	1.24E-01	1.43E-06
Copper	744-50-8	63.5[d]	1356.15[d]	0.00E+00	0.00E+00	0.00E+00	1.18E-01	1.36E-06
Lead	7439-92-1	207.2	600.5	0.00E+00	0.00E+00	0.00E+00	5.43E-02	6.28E-06
Manganese	7439-96-5	54.938[d]	1517.15[d]	0.00E+00	0.00E+00	0.00E+00	1.30E-01	1.50E-06
Mercury	7439-97-6	200.59	234.23	2.63E-06	5.62E-02	7.10E-03	1.09E-02	3.01E-05
Nickel	7440-02-0	58.69	1828	0.00E+00	0.00E+00	0.00E+00	1.26E-01	1.46E-05
Phosphorus	7723-14-0	30.97[d]	317.25[d]	0.00E+00	0.00E+00	0.00E+00	1.90E-01	2.21E-06
Selenium	7782-49-2	78.96	490.1	0.00E+00	0.00E+00	0.00E+00	1.03E-01	1.20E-05
Silver	7440-22-4	107.87	1233.6	0.00E+00	0.00E+00	0.00E+00	8.38E-02	9.71E-06
Thallium	7440-28-0	204.38	576.6	0.00E+00	0.00E+00	0.00E+00	5.48E-02	6.34E-06
Tin	7440-31-5	118.7[d]	505.05[d]	0.00E+00	0.00E+00	0.00E+00	7.74E-02	8.96E-07
Vanadium	7440-62-2	50.94[f]	2163.15[f]	0.00E+00	0.00E+00	0.00E+00	1.36E-01	1.58E-06
Zinc	7440-66-6	65.38	692.6	0.00E+00	0.00E+00	0.00E+00	1.17E-01	1.36E-05

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	K_{ow} (unitless)	log K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)
METALS								
Aluminum	7429-90-5	ND	ND	ND	ND	ND	ND	ND
Antimony	7440-36-0	ND	ND	ND	45[k]	45[k]	45[k]	ND
Arsenic	7440-38-2	ND	ND	ND	ND	ND	ND	ND
Barium	7440-39-3	ND	ND	ND	ND	ND	ND	ND
Beryllium	7440-41-7	ND	ND	ND	ND	ND	ND	ND
Boron	7440-42-8	ND	ND	ND	ND	ND	ND	ND
Cadmium	7440-43-9	ND	ND	ND	ND	ND	ND	ND
Chromium	7440-47-3	ND	ND	ND	ND	ND	ND	ND
Hexavalent Chromium	18540-29-9	ND	ND	ND	ND	ND	ND	ND
Cobalt	7440-48-4	ND	ND	ND	ND	ND	ND	ND
Copper	744-50-8	ND	ND	ND	ND	ND	ND	ND
Lead	7439-92-1	ND	ND	ND	900.00	900.00	900.00	ND
Manganese	7439-96-5	ND	ND	ND	ND	ND	ND	ND
Mercury	7439-97-6	ND	ND	ND	1000.00	1000.00	3000.00	0.00E+00
Nickel	7440-02-0	ND	ND	ND	ND	ND	ND	ND
Phosphorus	7723-14-0	ND	ND	ND	ND	ND	ND	ND
Selenium	7782-49-2	ND	ND	ND	ND	ND	ND	ND
Silver	7440-22-4	ND	ND	ND	ND	ND	ND	ND
Thallium	7440-28-0	ND	ND	ND	ND	ND	ND	ND
Tin	7440-31-5	ND	ND	ND	ND	ND	ND	ND
Vanadium	7440-62-2	ND	ND	ND	ND	ND	ND	ND
Zinc	7440-66-6	ND	ND	ND	62[k]	62[k]	62[k]	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Fv (unitless)	RCF	$Br_{rootveg}$	Br_{ag}	Br_{forage}	$Bvol_{ag/forage}$ (unitless-DW)	Bv_{ag}	Bv_{forage}
METALS									
Aluminum	7429-90-5	0.00E+00	ND	ND	ND	ND	ND	ND	ND
Antimony	7440-36-0	0.00E+00	ND	3.00E-02	3.19E-02	2.00E-01	ND	ND	ND
Arsenic	7440-38-2	0.00E+00	ND	8.00E-03	6.33E-03	3.60E-02	ND	ND	ND
Barium	7440-39-3	0.00E+00	ND	1.50E-02	3.22E-02	1.50E-01	ND	ND	ND
Beryllium	7440-41-7	0.00E+00	ND	1.50E-03	2.58E-03	1.00E-02	ND	ND	ND
Boron	7440-42-8	0.00E+00	ND	ND	ND	ND	ND	ND	ND
Cadmium	7440-43-9	0.00E+00	ND	6.40E-02	1.25E-01	3.64E-01	ND	ND	ND
Chromium	7440-47-3	0.00E+00	ND	4.50E-03	4.88E-03	7.50E-03	ND	ND	ND
Hexavalent Chromium	18540-29-9	0.00E+00	ND	4.50E-03	4.88E-03	7.50E-03	ND	ND	ND
Cobalt	7440-48-4	0.00E+00	ND	ND	ND	ND	ND	0[l]	0[l]
Copper	744-50-8	0.00E+00	ND	ND	ND	ND	ND	0[l]	0[l]
Lead	7439-92-1	0.00E+00	ND	9.00E-03	1.36E-02	4.50E-02	ND	ND	ND
Manganese	7439-96-5	0.00E+00	ND	ND	ND	ND	ND	0[l]	0[l]
Mercury	7439-97-6	1.00[g]	ND	ND	ND	ND	ND	ND	ND
Nickel	7440-02-0	0.00E+00	ND	8.00E-03	9.31E-03	3.20E-02	ND	ND	ND
Phosphorus	7723-14-0	0.00E+00	ND	ND	ND	ND	ND	ND	ND
Selenium	7782-49-2	0.00E+00	ND	2.20E-02	1.95E-02	1.60E-02	ND	ND	ND
Silver	7440-22-4	0.00E+00	ND	1.00E-01	1.38E-01	4.00E-01	ND	ND	ND
Thallium	7440-28-0	0.00E+00	ND	4.00E-04	8.58E-04	4.00E-03	ND	ND	ND
Tin	7440-31-5	0.00E+00	ND	ND	ND	ND	ND	ND	ND
Vanadium	7440-62-2	0.00E+00	ND	ND	ND	ND	ND	0[l]	0[l]
Zinc	7440-66-6	0.00E+00	ND	4.40E-02	0.072[g]	2.50E-01	ND	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW)	BAF_{fish} (L/Kg FW)	$BSAF_{fish}$ (unitless)
METALS									
Aluminum	7429-90-5	ND	ND	ND	ND	ND	ND	ND	ND
Antimony	7440-36-0	1.00E-04	1.00E-03	ND	ND	ND	4.00E+01	ND	ND
Arsenic	7440-38-2	0.00006[g]	2.00E-03	ND	ND	ND	20[g]	ND	ND
Barium	7440-39-3	3.50E-04	1.50E-04	ND	ND	ND	633[g]	ND	ND
Beryllium	7440-41-7	9.00E-07	1.00E-03	ND	ND	ND	62[g]	ND	ND
Boron	7440-42-8	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	7440-43-9	6.50E-06	1.20E-04	1.91E-04	2.50E-03	1.06E-01	250[g]	ND	ND
Chromium	7440-47-3	1.50E-03	5.50E-03	ND	ND	ND	190[g]	ND	ND
Hexavalent Chromium	18540-29-9	1.50E-03	5.50E-03	ND	ND	ND	3.00E+00	ND	ND
Cobalt	7440-48-4	0.00007[1]	0.0001[1]	0[1]	0[1]	0[1]	ND	ND	ND
Copper	744-50-8	0.0015[1]	0.009[1]	0[1]	0[1]	0[1]	ND	ND	ND
Lead	7439-92-1	2.50E-04	3.00E-04	3.60E-04	ND	ND	ND	8.00E+00	ND
Manganese	7439-96-5	0.00003[1]	0.0005[1]	0[1]	0[1]	0[1]	ND	ND	ND
Mercury	7439-97-6	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	7440-02-0	1.00E-03	6.00E-03	ND	ND	ND	78[g]	ND	ND
Phosphorus	7723-14-0	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	7782-49-2	5.86E-03	2.27E-03	1.88E-01	1.13E+00	1.13E+00	1.29E+02	ND	ND
Silver	7440-22-4	2.00E-02	3.00E-03	ND	ND	ND	204[g]	ND	ND
Thallium	7440-28-0	2.00E-03	4.00E-02	ND	ND	ND	1[g]	ND	ND
Tin	7440-31-5	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	7440-62-2	0.00002[1]	0.0025[1]	0[1]	0[1]	0[1]	ND	ND	ND
Zinc	7440-66-6	3.25E-05	9.00E-05	1.28E-04	8.75E-03	8.75E-03	2060[g]	ND	ND

TABLE D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

CHEMICAL	CAS Number	TEF (unitless)	Oral CSF $(mg/kg\text{-}day)^{-1}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	RfD (mg/kg/day)	Inhalation URF $(ug/m^3)^{-1}$	RfC (mg/m^3)
METALS							
Aluminum	7429-90-5	ND	ND	ND	1.00E+00 [p]	ND	4.90E-03 [p]
Antimony	7440-36-0	ND	ND	ND	4.00E-04	ND	1.43E-03
Arsenic	7440-38-2	ND	1.50E+00	1.50E+00	3.00E-04	4.30E-03	1.10E-03
Barium	7440-39-3	ND	ND	ND	7.00E-02	ND	5.00E-04
Beryllium	7440-41-7	ND	8.4[g]	8.40E+00	2.00E-03	2.40E-03	2.00E-02
Boron	7440-42-8	ND	ND	ND	9.00E-02 [n]	ND	2.00E-02 [o]
Cadmium	7440-43-9	ND	6.30E+00	6.30E+00	5.0E-04 (water) 1.0E-03 (food)	1.80E-03	2.0E-04[g]
Chromium	7440-47-3	ND	ND	ND	1.5[g]	ND	5.25[g]
Hexavalent Chromium	18540-29-9	ND	4.10E+01	42[g]	3.0E-03[g]	1.20E-02	1.40E-04[g]
Cobalt	7440-48-4	ND	ND	ND	5.71E-06	ND	2.00E-05[l]
Copper	744-50-8	ND	ND	ND	2.0E-02[l]	ND	7.00E-02
Lead	7439-92-1	ND	ND	ND	ND	ND	ND
Manganese	7439-96-5	ND	ND	ND	1.4E-01[m]	ND	4.90E-02[m]
Mercury	7439-97-6	ND	ND	ND	8.60E-05	ND	3.00E-04
Nickel	7440-02-0	ND	ND	ND	2.00E-02	ND	7.02E-02
Phosphorus	7723-14-0	ND	ND	ND	2.0E-05[n]	ND	7.00E-05
Selenium	7782-49-2	ND	ND	ND	5.00E-03	ND	1.80E-02
Silver	7440-22-4	ND	ND	ND	5.00E-03	ND	1.80E-02
Thallium	7440-28-0	ND	ND	ND	8.00E-05	ND	2.80E-04
Tin	7440-31-5	ND	ND	ND	6.0E-01[m]	ND	2.10E+00
Vanadium	7440-62-2	ND	ND	ND	7.0E-03[n]	ND	2.45E-02
Zinc	7440-66-6	ND	ND	ND	3.00E-01	ND	1.10E+00

TABEL D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

Notes:

atm	Atmosphere
atm*m^3/mol	Atmosphere-cubic meter per mole
Ba_{milk}	Biotransfer factor in milk
Ba_{beef}	Biotransfer factor in beef
Ba_{pork}	Biotransfer factor in pork
Ba_{egg}	Biotransfer factor in eggs
$Ba_{chicken}$	Biotransfer factor in chicken
BCF_{fish}	Bioconcentration factor in fish
BAF_{fish}	Bioaccumulation factor in fish
$BSAF_{fish}$	Biota-sediment accumulation factor in fish
$Br_{rootveg}$	Plant-soil bioconcentration factor for belowground produce
$Bvol_{ag/forage}$	Volumetric air-to-leaf biotransfer factor in leaf in agriculture/forage
Bv_{ag}	COPC air-to-plant biotransfer factor for aboveground produce
Bv_{forage}	Air-to-plant biotransfer factor in forage
CAMDS	Chemical Agent Munitions Disposal System
CAS	Chemical Abstact System
cm^2/s	Centimeter squared per second
cm^3/g	Cubic centimeter per gram
COPC	Chemical of potential concern
CSF	Cancer slope factor
day/kg FW	Day per kilogram fresh weight
D_a	Diffusivity of COPC in air
D_w	Diffusivity of COPC in water
Fv	Fraction of COPC air concentration in vapor phase
H	Henry's Law constant
Kd_{bs}	Bed sediment-sediment pore water coefficient
Kd_s	Soil-water partition coefficient
Kd_{sw}	Suspended sediment-surface water partition coefficient
K_{oc}	Soil organic carbon-water partition coefficient
K_{ow}	Octanol/water partitioning coefficient
ksg	COPC soil loss constant due to biotic and abiotic degradation
L/Kg	Liter per kilogram
L/Kg FW	Liter per kilogram fresh weight
mg/m^3	Milligram per cubic meter
mg/kg-day	Milligram per kilogram-day
mg/L	Milligram per liter
mL/g	Milliliter per gram
MW	Molecular weight
ND	No data
g/mole	Grams per mole
RCF	Root concentration factor
RfC	Reference concentration
RfD	Reference dose
S	Solubility of COPC in water
TEF	Toxicity equivalence factor
Tm	Melting point temperature
TOCDF	Tooele Chemical Demilitarization Facility
ug/m^3	Microgram per cubic meter
unitless-DW	Unitless-dry weight
URF	Unit risk factor

TABEL D-1
CHEMICAL AND PHYSICAL PROPERTIES OF
COPCS FOR TOCDF AND CAMDS

Vp Vapor pressure

[a] All values were taken from or calculated using methods presented in Appendix A-3 of EPA 1998 Human Health Risk Assessment Protocol for Hazardous Waste Combusiton Facilities unless otherwise noted.
[b] 5-Nitro-o-toluidine and 2-Methyl-5-nitroaniline are synonyms for the same compound.
[c] Values from on line database: http://chemfinders.com. Accessed March 2000.
[d] Values from Budavari, S., MJ O'Neil, A Smith, and PE Heckelman. 1989. The Merck Index: An Encylcopedia of Chemicals, Drugs, and Biologicals. 11th edition.
[e] Values from North Carolina Department of Environment, Health, and Natural Resources. 1997. North Carolina Protocol for Performing Indirect Exposure Risk Assessments for hazardous Waste Combustion Units.
[f] EPA Handbook of RCRA GW Monitoring Constituents: Chemical & Physical Properties.
[g] Values from EPA 1999, "Memorandum, Corrections to the Publication *Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities.* "
[h] Army 1999 Derivation of HBESL for Chemical Warfare Agents.
[i] Internal Report on Summary of Measured, calc, and recom LOG Kow values.
[j] For ionizing organics the K_{oc} estimated on the basis of pH.
[k] Values from Lakes Environmental Software. 1999. COPC database for the Industrial Risk Assessment Program - Health (IRAP-h).
[l] Plant Communities, Ethnoecology, and Flora of the Idaho National Engineering laboratory.
[m] Values from EPA. 1997. "Health Effects Assessment Summary Table (HEAST). Fiscal Year 1997 Update."
[n] Values from the Integrated Risk Information System (On line address: http://www.epa.gov/iris). Accessed March 2000.

CHEMICAL AND PHYSICAL PROPERTIES AND TOXICITY VALUES

CHEMICAL OF POTENTIAL CONCERN	CAS #	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)	K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)	Fv (unitless)	RCF	$Br_{rootveg}$
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	187.38		4.40E-01	1.70E+02	4.80E-01	7.80E-02	8.20E-06	1.40E+03	1.30E+03	1.30E+01	9.75E+01	5.20E+01		1.0000000	9.00E+00	
1,1'-Biphenyl (Phenylbenzene or Diphenyl)	92-52-4	154.2	344.15	1.30E-05	6.00E+00	3.00E-04	4.00E-02	8.20E-06	9.10E+03	7.80E+03	7.80E+01	5.85E+02	3.12E+02		1.0000000	3.50E+01	
1,3-Butadiene	106-99-0	54.09	164.25				1.33E-01	1.54E-05									
1,4-Naphthoquinone	130-15-4	158.15	399.15														
1-Chloronaphthalene	90-13-1	162.61	270.65														
1-Napthylamine	134-32-7	143.2	323.15														
2,6-Dichlorophenol	87-65-0	163.01	338.65														
2-Acetylaminofluorene	53-96-3	223.26	467.15	NA	NA	NA			1.91E+03								
2-Chloropropane (Isopropyl chloride)	75-29-6	78.54	156.15	6.90E-01	3.10E+03	1.70E-02	1.20E-01	1.00E-05	NA	NA	NA	NA	NA		1.0000000	NA	
2-Hexanone (Methyl butyl ketone)	591-78-6	100.16															
2-Methyl-5-nitroaniline [b]	99-55-8																
2-Methylnapthalene	91-57-6	142.2	307.75		2.50E+01	5.12E+01			7.24E+03								
2-Napthylamine	91-59-8	143.2	386.15														
2-Picoline	109-06-8	93.12	203.15														
2-Propanol (Isopropanol)	67-63-0	60.09	184.65														
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7	240.22	315.15														
3-Amino-9-ethycarbazole																	
3-Methylcholanthrene	56-49-5	268.34	453.15														
4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	198.13	360.65														
4-Aminobiphenyl (p-Biphenylamine)	92-67-1	169.22	326.15														
4-Nitroquinoline 1-oxide	56-57-5																
5-Nitroacenaphthene	602-87-9																
5-Nitro-o-toluidine [b]	99-55-8																
7,12-Dimethylbenz[a]-anthracene (DMBA)	57-97-6	256.33	396.15														
a,a-Dimethylphenethyl-amine (Phentermine)	122-09-8	149.23	471.15														
Acenapthylene	208-96-8	152.2	95.1														
Agent GB (Sarin)	107-44-8	140.09	216.15														
Aluminum	7429-90-5	26.98	933.15														
Aramite	140-57-8	334.87	106-99-0														
Benzenethiol (Phenylmercaptan or Thiophenol)	108-98-5	110.17															
Benzidine	92-87-5	184.23	401.15														
Benzo (e) pyrene	192-97-2	252.3	452.15														
Benzo (g,h,i) perylene	191-24-2																
Benzo (j) fluoranthrene																	
bis(2-Chloroethoxy)-methane	111-91-1																
Boron	7440-42-8	10.81	2473.15														
Bromoethene (Vinyl Bromide)	593-60-2																
cis-1,4-Dichloro-2-butene (2-Butene)	1476-11-5																
Cobalt	7440-48-4	58.9	1766.15														
Copper	7440-50-8	63.5	1356.15														
Diallate	2303-16-4	270.24															
Dibenz(a,j)acridine	224-42-0																
Dibenzofuran	132-64-9																
Dihydrosafrole	94-58-6																
Diisopropyl methyl phosphonate	1445-75-6																
Diisopropyl methylphosphonate	1445-75-6																
Dioxathion	78-34-2	456.54	253.15														
Ethyl parathion (Parathion)	56-38-2	291.3	279.15														

CHEMICAL AND PHYSICAL PROPERTIES AND TOXICITY

CHEMICAL OF POTENTIAL CONCERN	CAS #	Br_{ag}	Br_{forage}	Bv_{ag}	Bv_{forage}	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW tissue)	BAF_{fish} (L/Kg FW tissue)	$BSAF_{fish}$ (unitless)		Oral CSF (1/mg/kg-day)	Inhalation CSF (1/mg/kg-day)	RfD (mg/kg/day)	Inhalation URF (1/ug/m^3)
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	5.80E-01	5.80E-01	2.70E-02	2.70E-02	1.10E-05	3.60E-05	4.40E-05			8.20E+01	NA	NA					
1,1'-Biphenyl (Phenylbenzene or Diphenyl)	92-52-4	2.00E-01	2.00E-01	7.70E+00	7.70E+00	7.20E-05	2.30E-04	2.80E-04			NA	NA	NA					
1,3-Butadiene	106-99-0																	
1,4-Naphthoquinone	130-15-4																	
1-Chloronaphthalene	90-13-1														1.90E-01			
1-Napthylamine	134-32-7																	
2,6-Dichlorophenol	87-65-0																	
2-Acetylaminofluorene	53-96-3																	
2-Chloropropane (Isopropyl chloride)	75-29-6	NA	NA	NA	NA	NA	NA	NA			NA	NA	NA					
2-Hexanone (Methyl butyl ketone)	591-78-6																	
2-Methyl-5-nitroaniline [b]	99-55-8																	
2-Methylnapthalene	91-57-6																6.00E-02	
2-Napthylamine	91-59-8																	
2-Picoline	109-06-8																	
2-Propanol (Isopropanol)	67-63-0																	
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7																	
3-Amino-9-ethycarbazole																	2.50E-02	
3-Methylcholanthrene	56-49-5																	
4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1																	
4-Aminobiphenyl (p-Biphenylamine)	92-67-1																	
4-Nitroquinoline 1-oxide	56-57-5																	
5-Nitroacenaphthene	602-87-9																	
5-Nitro-o-toluidine [b]	99-55-8																	
7,12-Dimethylbenz[a]-anthracene (DMBA)	57-97-6																	
a,a-Dimethylphenethyl-amine (Phentermine)	122-09-8																	
Acenapthylene	208-96-8																	
Agent GB (Sarin)	107-44-8																	
Aluminum	7429-90-5																	
Aramite	140-57-8																	
Benzenethiol (Phenylmercaptan or Thiophenol)	108-98-5																	
Benzidine	92-87-5																	
Benzo (e) pyrene	192-97-2																	
Benzo (g,h,i) perylene	191-24-2																	
Benzo (j) fluoranthrene																		
bis(2-Chloroethoxy)-methane	111-91-1																	
Boron	7440-42-8																	
Bromoethene (Vinyl Bromide)	593-60-2																	
cis-1,4-Dichloro-2-butene (2-Butene)	1476-11-5																	
Cobalt	7440-48-4																	
Copper	7440-50-8																	
Diallate	2303-16-4																	
Dibenz(a,j)acridine	224-42-0																	
Dibenzofuran	132-64-9																	
Dihydrosafrole	94-58-6																	
Diisopropyl methyl phosphonate	1445-75-6																	
Diisopropyl methylphosphonate	1445-75-6																	
Dioxathion	78-34-2																	
Ethyl parathion (Parathion)	56-38-2																	

CHEMICAL AND PHYSICAL PROPERTIES AND TOXICIT			
CHEMICAL OF POTENTIAL CONCERN	CAS #	RfC (mg/m^3)	inh rfd
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1		
1,1'-Biphenyl (Phenylbenzene or Diphenyl)	92-52-4		
1,3-Butadiene	106-99-0		
1,4-Naphthoquinone	130-15-4		
1-Chloronaphthalene	90-13-1		
1-Napthylamine	134-32-7		
2,6-Dichlorophenol	87-65-0		
2-Acetylaminofluorene	53-96-3		
2-Chloropropane (Isopropyl chloride)	75-29-6		
2-Hexanone (Methyl butyl ketone)	591-78-6		
2-Methyl-5-nitroaniline [b]	99-55-8		
2-Methylnapthalene	91-57-6	2.00E-01	
2-Napthylamine	91-59-8		
2-Picoline	109-06-8		
2-Propanol (Isopropanol)	67-63-0		
2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7		
3-Amino-9-ethycarbazole			
3-Methylcholanthrene	56-49-5		
4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1		
4-Aminobiphenyl (p-Biphenylamine)	92-67-1		
4-Nitroquinoline 1-oxide	56-57-5		
5-Nitroacenaphthene	602-87-9		
5-Nitro-o-toluidine [b]	99-55-8		
7,12-Dimethylbenz[a]-anthracene (DMBA)	57-97-6		
a,a-Dimethylphenethyl-amine (Phentermine)	122-09-8		
Acenapthylene	208-96-8		
Agent GB (Sarin)	107-44-8		
Aluminum	7429-90-5		
Aramite	140-57-8		
Benzenethiol (Phenylmercaptan or Thiophenol)	108-98-5		
Benzidine	92-87-5		
Benzo (e) pyrene	192-97-2		
Benzo (g,h,i) perylene	191-24-2		
Benzo (j) fluoranthrene			
bis(2-Chloroethoxy)-methane	111-91-1		
Boron	7440-42-8		
Bromoethene (Vinyl Bromide)	593-60-2		
cis-1,4-Dichloro-2-butene (2-Butene)	1476-11-5		
Cobalt	7440-48-4		
Copper	7440-50-8		
Diallate	2303-16-4		
Dibenz(a,j)acridine	224-42-0		
Dibenzofuran	132-64-9		
Dihydrosafrole	94-58-6		
Diisopropyl methyl phosphonate	1445-75-6		
Diisopropyl methylphosphonate	1445-75-6		
Dioxathion	78-34-2		
Ethyl parathion (Parathion)	56-38-2		

CHEMICAL OF POTENTIAL CONCERN	CAS #	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)	K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)	Fv (unitless)	RCF	$Br_{rootveg}$
Hexachloropropene	1888-71-7																
HF	7664-39-3	20.0	189.6														
Iodomethane (Methyl iodide)	74-88-4	141.95	206.65														
Isosafrole	120-58-1	162.18	281.35														
Manganese	7439-96-5	54.938	1517.15														
METALS																	
Methapyrilene	91-80-5	261.38	435.15														
Methyl methanesulfonate	66-27-3	110.13															
Methylcyclohexane	108-87-2																
Miscellaneous Analytes																	
N,N'-Diisopropylcarbodiimide	693-13-0																
N,N-Diphenylamine (Phenylbenzenamine)	122-39-4	169.22	327.15	8.80E-07	3.60E+01	5.00E-07	6.80E-02	6.30E-06	3.00E+03	2.60E+03	2.60E+01	1.95E+02	1.04E+02		1.0000000	1.50E+01	
n-Hexane	110-54-3	86.17	173.15	2.00E-01	1.20E+01	1.40E-02	2.00E-01	7.80E-06	1.00E+04	8.60E+03	8.60E+01	6.45E+02	3.44E+02		1.0000000	3.70E+01	
N-Nitrosodiethylamine (ethylamine)	55-18-5	102.14															
N-Nitrosodimethylamine	62-75-9	74.1															
N-Nitrosomethylethylamine (NMEA)	10595-95-6																
N-Nitrosomorpholine	59-89-2	116.11	302.15														
N-Nitrosopiperidine	100-75-4																
N-Nitrosopyrrolidine	930-55-2	100.11															
Non-Volatile TOC																	
O,O,O-Triethylphosphorothioate	126-68-1																
para-Phenylenediamine	106-50-3	108.14	420.15														
Particulate Matter	ND																
p-Dimethylaminoazobenzene	60-11-7	225.28	390.15														
Pentachloroethane	76-01-7	202.3	244.15														
Phenacetin	62-44-2	179.21	408.15														
Phosphorus	7723-14-0	30.97	317.25														
p-Toludine	106-49-0	107.2	318.15	2.30E-04	7.80E+02	NA	7.00E-02	9.40E-06	2.50E+01	2.40E+01	2.40E-01	1.80E+00	9.60E-01		1.000000	1.20E+00	
Quinoline	91-22-5	129.15	258.15	1.30E-04	6.10E+03	2.70E-06	5.50E-02	8.30E-06	1.10E+02	1.00E+02	1.00E+00	7.50E+00	4.00E+00		1.000000	2.00E+00	
Semi-volatile Organic Compounds																	
Semi-Volatile TOC																	
Tin	7440-31-5	118.7	505.05														
trans-1,3-Dichloropropene	10061-02-6																
trans-1,4-Dichloro-2-butene	110-57-6																
Tributylamine	102-82-9	185.34															
Vanadium	7440-62-2																
Volatile TOC																	

Notes:

a 2,2'-Oxybis[1-chloropropane] CAS # is incorrect, it should be 108-60-1. The one used is for the compound 2,2'-Dichlorodiisopropyl ehter - an isomer

b 5-Nitro-o-toluidine and 2-Methyl-5-nitroaniline are the same compound

Errata

Use values from IRAP

from chemfinders.com

(1) For ionizing organics the koc was estimated on the basis of pH. See IRAP

The Merck Index (11th edition)

IRIS

HEAST

HEAST -Subchronic value

CHEMICAL OF POTENTIAL CONCERN	CAS #	Br_{ag}	Br_{forage}	Bv_{ag}	Bv_{forage}	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW tissue)	BAF_{fish} (L/Kg FW tissue)	$BSAF_{fish}$ (unitless)		Oral CSF (1/mg/kg-day)	Inhalation CSF (1/mg/kg-day)	RfD (mg/kg/day)	Inhalation URF (1/ug/m^3)
Hexachloropropene	1888-71-7																	
HF	7664-39-3																1.40E-01	
Iodomethane (Methyl iodide)	74-88-4																	
Isosafrole	120-58-1																	
Manganese	7439-96-5																5.70E-06	inh
METALS																	7.00E-03	
Methapyrilene	91-80-5																2.00E-02	
Methyl methanesulfonate	66-27-3																	
Methylcyclohexane	108-87-2																1.00E-01	
Miscellaneous Analytes																		
N,N'-Diisopropylcarbodiimide	693-13-0																3.00E+01	
N,N-Diphenylamine (Phenylbenzenamine)	122-39-4	3.80E-01	3.80E-01	5.70E+04	5.70E+04	2.40E-05	7.60E-05	9.20E-05			9.50E+01	NA	NA					
n-Hexane	110-54-3	1.90E-01	1.90E-01	1.80E-01	1.80E-01	7.90E-05	2.50E-04	3.00E-04			NA	NA	NA					
N-Nitrosodiethylamine (ethylamine)	55-18-5																	
N-Nitrosodimethylamine	62-75-9																	
N-Nitrosomethylethylamine (NMEA)	10595-95-6																	
N-Nitrosomorpholine	59-89-2																	
N-Nitrosopiperidine	100-75-4														1.20E+01			
N-Nitrosopyrrolidine	930-55-2																	
Non-Volatile TOC																		
O,O,O-Triethylphosphorothioate	126-68-1																	
para-Phenylenediamine	106-50-3																5.00E-02	
Particulate Matter	ND																	
p-Dimethylaminoazobenzene	60-11-7																	
Pentachloroethane	76-01-7																	
Phenacetin	62-44-2																	
Phosphorus	7723-14-0																	
p-Toludine	106-49-0	6.00E+00	6.00E+00	NA	NA	2.00E-07	6.30E-07	7.60E-07			3.30E+00	NA	NA					
Quinoline	91-22-5	2.50E+00	2.50E+00	8.00E+00	8.00E+00	1.10E-04	3.50E-04	4.20E-04			4.60E+02	NA	NA					
Semi-volatile Organic Compounds																		
Semi-Volatile TOC																		
Tin	7440-31-5																	
trans-1,3-Dichloropropene	10061-02-6																	
trans-1,4-Dichloro-2-butene	110-57-6																	
Tributylamine	102-82-9																	
Vanadium	7440-62-2																	
Volatile TOC																		

Notes:

a 2,2'-Oxybis[1-chloropropane] CAS # is incorrect, it should be 108-60-

b 5-Nitro-o-toluidine and 2-Methyl-5-nitroaniline are the same compou

Errata

Use values from IRAP

from chemfinders.com

(1) For ionizing

The Merck Index (11th edition)

IRIS

HEAST

HEAST -Subchronic value

CHEMICAL OF POTENTIAL CONCERN	CAS #	RfC (mg/m^3)	inh rfd
Hexachloropropene	1888-71-7		
HF	7664-39-3	5.00E-04	1.43E-04
Iodomethane (Methyl iodide)	74-88-4		
Isosafrole	120-58-1		
Manganese	7439-96-5	2.00E-05	
METALS		2.45E-02	0.007
Methapyrilene	91-80-5		
Methyl methanesulfonate	66-27-3		
Methylcyclohexane	108-87-2		
Miscellaneous Analytes			
N,N'-Diisopropylcarbodiimide	693-13-0	3.00E+01	
N,N-Diphenylamine (Phenylbenzenamine)	122-39-4		
n-Hexane	110-54-3		
N-Nitrosodiethylamine (ethylamine)	55-18-5		
N-Nitrosodimethylamine	62-75-9		
N-Nitrosomethylethylamine (NMEA)	10595-95-6		
N-Nitrosomorpholine	59-89-2		
N-Nitrosopiperidine	100-75-4		
N-Nitrosopyrrolidine	930-55-2		
Non-Volatile TOC			
O,O,O-Triethylphosphorothioate	126-68-1		
para-Phenylenediamine	106-50-3		
Particulate Matter	ND		
p-Dimethylaminoazobenzene	60-11-7		
Pentachloroethane	76-01-7		
Phenacetin	62-44-2		
Phosphorus	7723-14-0		
p-Toludine	106-49-0		
Quinoline	91-22-5		
Semi-volatile Organic Compounds			
Semi-Volatile TOC			
Tin	7440-31-5		
trans-1,3-Dichloropropene	10061-02-6		
trans-1,4-Dichloro-2-butene	110-57-6		
Tributylamine	102-82-9		
Vanadium	7440-62-2		
Volatile TOC			

Notes:

a 2,2'-Oxybis[1-chloropropane] CAS # is incorrect, it should be 108-60-

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Errata	
Use values from IRAP	
from chemfinders.com	
(1)	For ionizing
The Merck Index (11th edition)	
IRIS	
HEAST	
HEAST -Subchronic value	

CHEMICAL OF POTENTIAL CONCERN	CAS #	MW (g/mole)	Tm (K)	Vp (atm)	S (mg/L)	H (atm*m^3/mol)	D_a (cm^2/s)	D_w (cm^2/s)	K_{ow} (unitless)	K_{oc} (mL/g)	Kd_s (cm^3/g)	Kd_{sw} (L/Kg)	Kd_{bs} (cm^3/g)	ksg (1/year)	Fv (unitless)	RCF	$Br_{rootveg}$

Internal Report on Summary of Measured, calc, and recom LOG Kow values
Values in RED were Calculated using given values
North Carolina Protocol for Performing Indirect Exposure Risk Assessments for hazardous Waste Combustion Units
Plant Communities, Ethnoecology, and Flora of the Idaho National Engineering laboratory
EPA Handbook of RCRA GW Monitoring Constituents: Chemical & Physical Properties
Physical-Chemical Properties andEnvironmental Fate Vol. II

CHEMICAL OF POTENTIAL CONCERN	CAS #	Br_{ag}	Br_{forage}	Bv_{ag}	Bv_{forage}	Ba_{milk} (day/kg FW)	Ba_{beef} (day/kg FW)	Ba_{pork} (day/kg FW)	Ba_{egg} (day/kg FW)	$Ba_{chicken}$ (day/kg FW)	BCF_{fish} (L/Kg FW tissue)	BAF_{fish} (L/Kg FW tissue)	$BSAF_{fish}$ (unitless)		Oral CSF (1/mg/kg-day)	Inhalation CSF (1/mg/kg-day)	RfD (mg/kg/day)	Inhalation URF (1/ug/m^3)
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Physical-Chemical Properties andEnvironmental Fate Vol. II																		

CHEMICAL OF POTENTIAL CONCERN	CAS #	RfC (mg/m^3)	inh rfd
Internal Report on Summary of Measured, calc, and recom	LOG Kow val		
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Physical-Chemical Properties andEnvironmental Fate Vol. II			